Port of Seattle

COMMENT BINDER B

Comments made to the Corps during the second public comment period (from April 9 to April 20, 1998)

Comments made to Ecology during the entire public comment period (from December 19 to April 29, 1998)

Seattle-Tacoma International Airport
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Seattle, WA 98168 U.S.A.
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LETTERS TO THE CORPS SUBMITTED DURING SECOND COMMENT PERIOD (APRIL 9, 1998 TO APRIL 20, 1998)

2F-1

U.S. Department
of Transportation

Federal Aviation
Administration

Northwest Mountain Region
Colorado, Idaho, Montana
Oregon, Utah, Washington,
Wyoming

1601 Lind Avenue, S.W.
Renton, Washington 98055-4056

April 8, 1998

Mr. Jonathan Freedman
U.S. Army Corps of Engineer, Seattle District
909 First Avenue, Suite 200
Seattle, WA 98104-1000

Dear Mr. Freedman:

The Federal Aviation Administration (FAA) is pleased to provide comments concerning the Port of Seattle's wetland mitigation program for the Master Plan Update improvements at Seattle-Tacoma International Airport.

As indicated in our July 3, 1997, Record of Decision, the FAA has reviewed all of the options to avoid or reduce wetland fill. We documented our determination that there is no other viable alternative which meets the project purpose and needs identified in the 1996 Final Environmental Impact Statement (EIS) and 1997 Final Supplemental EIS. We continue to believe that no viable option exists for this project other than: 1) the proposed mitigation of appropriate stream and wetland impacts in the airport vicinity, and 2) mitigation of wetland habitat, which would be a wildlife attractant, at a distance of 10,000 feet or more from the airport, due to safety concerns.

The proposed wetland mitigation program developed by the Port of Seattle achieves the desired mitigation of hydrologic functions of wetlands and streams in the immediate airport vicinity. This mitigation includes on-site replacement of storm water detention, groundwater discharge, flood storage, and stream habitat functions. The Port proposes mitigation that will enhance creek habitat for fish (stream buffers and removal of detrimental land uses). The remaining habitat functions of affected wetlands are to be established at a mitigation site in Auburn.

This approach complies with the letter and intent of the FAA's Advisory Circular 150/5200-33, "Hazardous Wildlife Attractants On or Near Airports." As this advisory circular states: ". . . During the past century, wildlife-aircraft strikes have resulted in the loss of hundreds of lives world-wide, as well as billions of dollars worth of aircraft damage. . . . Wetland mitigation should be designed so it does not create a wildlife hazard. . . ."

Therefore, in siting mitigation wetlands, the FAA has established several criteria: 1) a distance of 5,000 feet is recommended for airports served by piston-powered aircraft; 2) a

distance of 10,000 feet is recommended for airports served by turbine-powered aircraft (jets); and 3) a distance of 5 miles, if the wildlife attractant may cause hazardous wildlife movement into or across the approach or departure airspace.

We are pleased to see that the Port of Seattle has developed a comprehensive mitigation plan that protects Miller and Des Moines Creeks from continued degradation and has refined its wetland mitigation plans to comply with these aircraft safety concerns.

Sincerely,

ORIGINAL SIGNED BY
Lowell H. Johnson

Lowell H. Johnson
Manager, Airports Division
Northwest Mountain Region

cc:
SEA-ADO

United States Department of Agriculture
Animal and Plant Health Inspection Service
Animal Damage Control
720 O'Leary St., NW
Olympia, WA 98502
Tel: (360) 753-9884
Fax: (360) 753-9466

April 9, 1998

Jonathan Friedman
U.S. Army Corps of Engineers
Seattle District
Federal Office Building, Suite 200
909 First Avenue
Seattle WA 98104-1000

Dear Mr. Friedman:

I represent the U.S. Department of Agriculture's - Wildlife Services program in Washington, Alaska, Hawaii, and the Pacific Islands. Our agency has a Memorandum of Understanding with the FAA to resolve wildlife hazards to aviation for the purpose of promoting safe air operations. This memorandum establishes that Wildlife Services has the expertise and will provide technical and operational assistance to alleviate wildlife hazards at airports. The primary statutory authority by which Wildlife Services operates is the Animal Damage Control Act of 1931, as amended (7 U.S.C. 426-426c; 46 Stat. 1468). Wildlife Services has the authority to manage migratory bird damage as specified in the Code of Federal Regulations. In addition, the Rural Development, Agriculture, and Related Agencies Appropriations Act of 1988 authorizes and directs the Secretary of Agriculture to cooperate with States, individuals, public and private agencies, organizations, and institutions in the control of nuisance mammals and birds deemed injurious to the public. As a consequence, the FAA has, and continues to rely on our expertise when addressing hazardous situations involving wildlife in and around airport environments.

Collisions between aircraft and wildlife are a concern throughout the world because they threaten passenger safety, and result in lost revenue and costly repairs to aircraft. In several instances, wildlife-aircraft collisions in the United States have resulted in human fatalities, the most recent of which occurred in 1995 when an Air Force AWACS aircraft (a modified Boeing 707) crashed after colliding with a flock of Canada geese on takeoff at Elmondorf Air Force Base, Alaska, killing all 24 crew members.

The FAA is responsible for setting and enforcing the Federal Aviation Regulations and policies at civilian airports for the purpose of enhancing public safety and preventing tragedies similar to that which occurred at Elmondorf. In Section 14 of the Code of Federal Regulations, Part 139.337, subparts (f) and (g) it states that "...each certificate holder shall take immediate measures to alleviate wildlife hazards whenever they are detected," and that "FAA Advisory

circulars in the 150 series contain standards and procedures for wildlife hazard management at airports which are acceptable to the Administrator."

One such Advisory Circular, No. 5200-33, deals exclusively with hazardous wildlife attractants on or near airports. In this circular, the FAA recommends that airports serving turbine powered aircraft, including SeaTac Airport, maintain a minimum separation of 10,000 feet between the wildlife attractant and aircraft movement areas, loading ramps, and parking areas. Section 2-4, part (b) of this circular specifically addresses issues involving wetland mitigation resulting from new airport developments. In this section, the FAA recommends that mitigation projects which may attract hazardous wildlife should be sited outside of the 10,000-foot separation zone. Exceptions to the 10,000-foot separation may be considered if the wetlands provide a unique ecological function such as critical habitat for threatened or endangered species or ground water recharge. Enhancing such mitigation areas to attract hazardous wildlife should be avoided. The FAA also states that any wetland mitigation projects that must be sited within the critical separation zone due to unique wetland functions should be identified and evaluated by a wildlife damage management biologist before implementation.

As the primarily agency responsible for addressing issues related to wildlife damage, including hazards at airports, it is our position that wetland mitigation measures at SeaTac Airport should be conducted off-site. On-site mitigation would attract hazardous wildlife, particularly waterfowl, compromising air safety by increasing the probability of a damaging or fatal strike. Furthermore, if a new wetland is established on-site with vegetation and cover that is unattractive to wildlife, both the spirit and intent of the mitigation effort would be violated. We believe that an alternative site located outside the critical aircraft movement area will better serve the interests of both wildlife and the safety of passengers, pilots, and their crew members.

Thank you for considering our concerns regarding this matter.

Sincerely,

J. Gary Oldenburg
State Director, WA/AK/HI/Pacific Islands

cc: Harold Handke, FAA
Michael Linnell, WS

Encl: Advisory Circular 150/5200-33 - Hazardous Wildlife Attractants On or Near Airports
Memorandum of Understanding Between FAA and USDA
Statement From Pilots Association Before U.S. House Subcommittee on Aviation

No. 12-34-71-0003-MOU

MEMORANDUM OF UNDERSTANDING
BETWEEN
UNITED STATES DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION (FAA)
AND
UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE ANIMAL CONTROL (ADC)

ARTICLE 1

This Memorandum of Understanding (MOU) establishes a cooperative relationship between FAA and ADC for resolving animal hazards to aviation that benefits public safety.

ARTICLE 2

This MOU is reached pursuant to the Animal Damage Control Act of March 2, 1931, (7USC 426-426b), and The Rural Development, Agriculture, and Related Agencies Appropriations Act, 1988 (P.L. 100-202), which established the authority of the Secretary of Agriculture to cooperate with States, individuals, public and private agencies, organizations and institutions in the control of nuisance mammals and birds deemed injurious to the public.

The Administrator of the FAA, is empowered to issue airport operating certificates for airports serving air carrier aircraft and certifies that such airports are properly and adequately equipped, and able to conduct safe operations, pursuant to the Federal Aviation Act of 1958, (49USC 1432), as amended. Federal Aviation Regulation (14 CFR Part 139) requires certificated airports having a wildlife hazard problem to develop and implement a wildlife hazard management plan to manage and control wildlife which present a risk to public safety caused by aircraft collisions with wildlife. "Wildlife hazard" has been defined as a potential for a damaging aircraft collision with wildlife, on or near an airport.

ARTICLE 3

FAA and ADC agrees:

a. That ADC has the expertise to provide technical and operational assistance needed to reduce wildlife hazards to aviation on and near airports.

b. That most airports lack the technical expertise to identify underlying causes of wildlife hazard problems, but do have the capability to control their own wildlife, following proper instruction in control techniques.

c. That situations arise where nuisance wildlife control is necessary off airport property (roost relocations reductions in nesting populations, etc.) requiring specialized technical assistance of ADC personnel.

d. That FAA or the certificated airport may request technical and operational assistance from ADC to reduce wildlife hazards. This assistance includes, but is not limited to, site visits to identify wildlife and their movement patterns and habitats which increase the risk of animal and aviation conflicts. ADC personnel may also provide, (1) recommendations on control and habitat management to minimize the hazards, (2) training in the use of control devices, and (3) recommendations on the scope of further-studies necessary to identify and minimize wildlife hazards.

e. ADC shall not be liable or responsible for development, approval, or implementation of wildlife hazard management plans required under PAR Part 139.337, this being the responsibility of the airport operator. Information provided by ADC as a result of site visits or consultation shall be used by the airport operator in developing the wildlife hazard management plan.

f. To meet at least annually to review this agreement, identify problems exchange information on new control methodologies, identify research needs, and prioritize program needs.

ARTICLE 4

All animal damage control activities will be conducted in accordance with applicable Federal, State, and local laws and regulations. ADC personnel shall advise airport operators of their responsibilities to secure necessary permits and/or licenses for control of wildlife.

ARTICLE 5

This MOU defines in general terms, the basis on which the parties will cooperate, and does not constitute a financial obligation to serve as a basis for expenditures. Request for technical, operational, or research assistance which require cooperative or reimbursable funding will be completed under a separate agreement.

ARTICLE 6

This MOU shall supersede all existing MOU'S, supplements, and amendments relating to the conduct of animal damage control programs between ADC and FAA.

ARTICLE 7

Pursuant to Section 22, Title 41, United States Code, no member of or delegate to Congress shall be admitted to any share or part of this MOU, or to say benefit to arise therefrom.

ARTICLE 8

This MOU shall become effective upon the date of final signature and shall continue indefinitely. This Memorandum may be amended at any time by mutual agreement of the parties in writing. It may be terminated by either party upon 60 days' advance written notice to the other party.

APR 13 1989
Date

Acting Administrator
U.S. Department of Transportation
Federal Aviation Administration

MAR 21 1989
Date

Acting Administrator
U.S. Department of Agriculture
Animal and Plant Health Inspection Service

U.S. Department of Transportation

Federal Aviation Administration

Advisory Circular

Subject: HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS

Date: 5/1/97
Initiated by: AAS-310 and APP-600

AC No: 150/5200-33
Change:

1. PURPOSE. This advisory circular (AC) provides guidance on locating certain land uses having the potential to attract hazardous wildlife to or in the vicinity of public-use airports. It also provides guidance concerning the placement of new airport development projects (including airport construction, expansion, and renovation) pertaining to aircraft movement in the vicinity of hazardous wildlife attractants. Appendix 1 provides definitions of terms used in this AC.

2. APPLICATION. The standards, practices, and suggestions contained in this AC are recommended by the Federal Aviation Administration (FAA) for use by the operators and sponsors of all public-use airports. In addition, the standards, practices, and suggestions contained in this AC are recommended by the FAA as guidance for land use planners, operators, and developers of projects, facilities, and activities on or near airports.

3. BACKGROUND. Populations of many species of wildlife have increased markedly in the last few years. Some of these species are able to adapt to human-made environments, such as exist on and around airports. The increase in wildlife populations, the use of larger turbine engines, the increased use of twin-engine aircraft, and the increase in air-traffic, all combine to increase the risk, frequency, and potential severity of wildlife-aircraft collisions.

Most public-use airports have large tracts of open, unimproved land that are desirable for added margins of safety and noise mitigation. These are can present potential hazards to aviation because they often attract hazardous wildlife. During the past century, wildlife-aircraft strikes have resulted in the loss of hundreds of lives world-wide, as well as billions of dollars worth of aircraft damage. Hazardous wildlife attractants near airports could jeopardize future airport expansion because of safety considerations.

DAVID L. BENNETT
Director, Office of Airport Safety and Standards

SECTION 1. HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS.

1-1. TYPES OF HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS. Human-made or natural areas, such as poorly-drained areas, retention ponds, roosting habitats on buildings, landscaping, putrescible-waste disposal operations, wastewater treatment plants, agricultural or aquacultural activities, surface mining, or wetlands, may be used by wildlife for escape, feeding, loafing, or reproduction. Wildlife use of areas within an airport's approach or departure airspace, aircraft movement areas, loading ramps, or aircraft parking areas may cause conditions hazardous to aircraft safety.

All species of wildlife can pose a threat to aircraft safety. However, some species are more commonly involved in aircraft strikes than others. Table 1 lists the wildlife groups commonly reported as being involved in damaging strikes to U.S. aircraft from 1993 to 1995.

Table 1. Wildlife Groups Involved in Damaging Strikes to Civilian Aircraft, USA, 1993-1995.

Wildlife Groups	Percent involvement in reported damaging strikes
Gulls	28
Waterfowl	28
Raptors	11
Doves	6
Vultures	5
Blackbirds-Starlings	5
Corvids	3
Wading birds	3
Deer	11
Canids	1

1-2. LAND USE PRACTICES. Land use practices that attract or sustain hazardous wildlife populations on or near airports can significantly increase the potential for wildlife-aircraft collisions. FAA recommends against land use practices, within the siting criteria stated in 1-3, that attract or sustain populations of hazardous wildlife within the vicinity of airports or cause movement of hazardous wildlife onto, into, or across the approach or departure airspace, aircraft movement area, loading ramps, or aircraft parking area of airports.

Airport operators, sponsors, planners, and land use developers should consider whether proposed land uses, including new airport development projects, would increase the wildlife hazard. Caution should be exercised to ensure that land use practices on or near airports do not enhance the attractiveness of the area to hazardous wildlife.

1-3. SITING CRITERIA. FAA recommends separations when siting any of the wildlife attractants mentioned in Section 2 or when planning new airport development projects to accommodate aircraft movement. The distance between an airport's aircraft movement areas, loading ramps, or aircraft parking areas and the wildlife attractant should be as follows:

a. **Airports serving piston-powered aircraft.** A distance of 5,000 feet is recommended.

b. **Airports serving turbine-powered aircraft.** A distance of 10,000 feet is recommended.

c. **Approach or Departure airspace.** A distance of 5 statute miles is recommended, if the wildlife attractant may cause hazardous wildlife movement into or across the approach or departure airspace.

SECTION 2. LAND USES THAT ARE INCOMPATIBLE WITH SAFE AIRPORT OPERATIONS.

2-1. GENERAL. The wildlife species and the size of the populations attracted to the airport environment are highly variable and may depend on several factors, including land-use practices on or near the airport. It is important to identify those land use practices in the airport area that attract hazardous wildlife. This section discusses land use practices known to threaten aviation safety.

2-2. PUTRESCIBLE-WASTE DISPOSAL OPERATIONS. Putrescible-waste disposal operations are known to attract large numbers of wildlife that are hazardous to aircraft. Because of this, these operations, when located within the separations identified in the siting criteria in 1-3 are considered incompatible with safe airport operations.

FAA recommends against locating putrescible-waste disposal operations inside the separations identified in the siting criteria mentioned above. FAA also recommends against new airport development projects that would increase the number of aircraft operations or that would accommodate larger or faster aircraft, near putrescible-waste disposal operations located within the separations identified in the siting criteria in 1-3.

2-3. WASTEWATER TREATMENT FACILITIES. Wastewater treatment facilities and associated settling ponds often attract large numbers of wildlife that can pose a threat to aircraft safety when they are located on or near an airport.

a. New wastewater treatment facilities. FAA recommends against the construction of new wastewater treatment facilities or associated settling ponds within the separations identified in the siting criteria in 1-3. During the siting analysis for wastewater treatment facilities, the potential to attract hazardous wildlife should be considered if an airport is in the vicinity of a proposed site. Airport operators should voice their opposition to such sitings. In addition, they should consider the existence of wastewater treatment facilities when evaluating proposed sites for new airport development projects and avoid such sites when practicable.

b. Existing wastewater treatment facilities. FAA recommends correcting any wildlife hazards arising from existing wastewater treatment facilities located on or near airports without delay, using appropriate wildlife hazard mitigation techniques. Accordingly, measures to minimize hazardous wildlife attraction should be developed in consultation with a wildlife damage management biologist. FAA recommends that wastewater treatment facility operators incorporate appropriate wildlife hazard mitigation techniques into their operating practices. Airport operators also should encourage those operators to incorporate these mitigation techniques in their operating practices.

c. Artificial marshes. Waste-water treatment facilities may create artificial marshes and use submergent and emergent aquatic vegetation as natural filters. These artificial marshes may be used by some species of flocking birds, such as blackbirds and waterfowl, for breeding or roosting activities. FAA recommends against establishing artificial marshes within the separations identified in the siting criteria stated in 1-3.

d. Wastewater discharge and sludge disposal. FAA recommends against the discharge of wastewater or sludge on airport property. Regular spraying of wastewater or sludge disposal on unpaved areas may improve soil moisture and quality. The resultant turf growth requires more frequent mowing, which in turn may mutilate or flush insects or small animals and produce straw. The maimed or flushed organisms and the straw can attract hazardous wildlife and jeopardize aviation safety. In addition, the improved turf may attract grazing wildlife such as deer and geese.

Problems may also occur when discharges saturate unpaved airport areas. The resultant soft, muddy conditions can severely restrict or prevent emergency vehicles from reaching accident sites in a timely manner.

e. Underwater waste discharges. The underwater discharge of any food waste, e.g., fish processing offal, that could attract scavenging wildlife is not recommended within the separations identified in the siting criteria in 1-3.

2-4. WETLANDS.

a. Wetlands on or near Airports.

(1) Existing Airports. Normally, wetlands are attractive to many wildlife species. Airport operators with wetlands located on or nearby airport property should be alert to any wildlife use or habitat changes in these areas that could affect safe aircraft operations.

(2) Airport Development. When practicable, the FAA recommends siting new airports using the separations identified in the siting criteria in 1-3. Where alternative sites are not practicable or when expanding existing airports in or near wetlands, the wildlife hazards should be evaluated and minimized through a wildlife management plan prepared by a wildlife damage management biologist, in consultation with the U.S. Fish and Wildlife Service (USFWS) and the U.S. Army Corps of Engineers (COE).

NOTE: If questions exist as to whether or not an area would qualify as a wetland, contact the U.S. Army COE, the Natural Resource Conservation Service, or a wetland consultant certified to delineate wetlands.

b. Wetland mitigation. Mitigation may be necessary when unavoidable wetland disturbances result from new airport development projects. Wetland mitigation should be designed so it does not create a wildlife hazard.

(1) FAA recommends that wetland mitigation projects that may attract hazardous wildlife be sited outside of the separations identified in the siting criteria in 1-3. Wetland mitigation banks meeting these siting criteria offer an ecologically sound approach to mitigation in these situations.

(2) Exceptions to locating mitigation activities outside the separations identified in the siting criteria in 1-3 may be considered if the affected wetlands provide unique ecological functions, such as critical habitat for threatened or endangered species or ground water recharge. Such mitigation must be compatible with safe airport operations. Enhancing such mitigation areas to attract hazardous wildlife should be avoided. On-site mitigation plans may be reviewed by the FAA to determine compatibility with safe airport operations.

(3) Wetland mitigation projects that are needed to protect unique wetland functions (see 2-4.b.(2)), and that must be located in the siting criteria in 1-3 should be identified and evaluated by a wildlife damage management biologist before implementing the mitigation. A wildlife damage management plan should be developed to reduce the wildlife hazards.

NOTE: AC 150/5000-3, *Address List for Regional Airports Division and Airports District/Field Offices*, provides information on the location of these offices.

2-5. DREDGE SPOIL CONTAINMENT AREAS. FAA recommends against locating dredge spoil containment areas within the separations identified in the siting criteria in 1-3, if the spoil contains material that would attract hazardous wildlife.

AR 035993

SECTION 3. LAND USES THAT MAY BE COMPATIBLE WITH SAFE AIRPORT OPERATIONS.

3-1. GENERAL. Even though they may, under certain circumstances, attract hazardous wildlife, the land use practices discussed in this section have flexibility regarding their location or operation and may even be under the airport operator's or sponsor's control. In general, the FAA does not consider the activities discussed below as hazardous to aviation if there is no apparent attraction to hazardous wildlife, or wildlife hazard mitigation techniques are implemented to deal effectively with any wildlife hazard that may arise.

3-2. ENCLOSED WASTE FACILITIES. Enclosed trash transfer stations or enclosed waste handling facilities that receive garbage indoors; process it via compaction, incineration, or similar manner; and remove all residue by enclosed vehicles, generally would be compatible, from a wildlife perspective, with safe airport operations, provided they are not located on airport property or within the runway protection zone (RPZ). No putrescible-waste should be handled or stored outside at any time, for any reason, or in a partially enclosed structure accessible to hazardous wildlife.

Partially enclosed operations that accept putrescible-waste are considered to be incompatible with safe airport operations. FAA recommends these operations occur outside the separations identified in the siting criteria in 1-3.

3-3. RECYCLING CENTERS. Recycling centers that accept previously sorted, non-food items such as glass, newspaper, cardboard, or aluminum are, in most cases, not attractive to hazardous wildlife.

3-4. COMPOSTING OPERATIONS ON AIRPORTS. FAA recommends against locating composting operations on airports. However, when they are located on an airport, composting operations should not be located closer than the greater of the following distances: 1,200 feet from any aircraft movement area, loading ramp, or aircraft parking space; or the distance called for by airport design requirements. This spacing is intended to prevent material, personnel, or equipment from penetrating any Obstacle Free Area (OFA), Obstacle Free Zone (OFZ), Threshold Siting Surface (TSS), or Clearway (see AC 150/5300-13, *Airport Design*). On-airport disposal of compost by-products is not recommended for the reasons stated in 2-3.d.

a. Composition of material handled. Components of the compost should never include any municipal solid waste. Non-food waste such as leaves, lawn clippings, branches, and twigs generally are not considered a wildlife attractant. Sewage sludge, wood-chips, and similar material are not municipal solid wastes and may be used as compost bulking agents.

b. Monitoring on-airport composting operations. If composting operations are to be located on airport property, FAA recommends that the airport operator monitor composting operations to ensure that steam or thermal rise does not affect air traffic in any way. Discarded leaf disposal bags or other debris must not be allowed to blow onto any active airport area. Also, the airport operator should reserve the right to stop any operation that creates unsafe, undesirable, or incompatible conditions at the airport.

3-5. ASH DISPOSAL. Fly ash from resource recovery facilities that are fired by municipal soli waste, coal, or wood, is generally considered not to be a wildlife attractant because it contains no putrescible matter. FAA generally does not consider landfills accepting only fly ash to be wildlife attractants, if those landfills: are maintained in an orderly manner; admit no putrescible-waste of any kind; and are not co-located with other disposal operations.

Since varying degrees of waste consumption are associated with general incineration, FAA classifies the ash from general incinerators as a regular waste disposal by-product and, therefore, a hazardous wildlife attractant.

3-6. CONSTRUCTION AND DEMOLITION (C&D) DEBRIS LANDFILLS. C&D debris (Class IV) landfills have visual and operational characteristics similar to putrescible-waste disposal sites. When co-located with putrescible-waste disposal operations, the probability of hazardous wildlife attraction to C&D landfills increases because of the similarities between these disposal activities.

FAA generally does not consider C&D landfills to be hazardous wildlife attractants, if those landfills: are maintained in an orderly manner; admit no putrescible-waste of any kind; and are not co-located with other disposal operations.

3-7. WATER DETENTION OR RETENTION PONDS. The movement of storm water away from runways, taxiways, and aprons is a normal function on most airports and is necessary for safe aircraft operations. Detention ponds hold storm water for short periods, while retention ponds hold water indefinitely. Both types of ponds control runoff, protect water quality, and can attract hazardous wildlife. Retention ponds are more attractive to hazardous wildlife than detention ponds because they provide a more reliable water source.

To facilitate hazardous wildlife control, FAA recommends using steep-sided, narrow, linearly-shaped, rip-rap lined, water detention basins rather than retention basins. When possible, these ponds should be placed away from aircraft movement areas to minimize aircraft-wildlife interactions. All vegetation in or around detention or retention basins that provide food or cover for hazardous wildlife should be eliminated.

If soil conditions and other requirements allow, FAA encourages the use of underground storm water infiltration systems, such as French drains or buried rock fields, because they are less attractive to wildlife.

3-8. LANDSCAPING. Wildlife attraction to landscaping may vary by geographic location. FAA recommends that airport operators approach landscaping with caution and confine it to airport areas not associated with aircraft movements. All landscaping plans should be reviewed by a wildlife damage management biologist. Landscaped areas should be monitored on a continuing basis for the presence of hazardous wildlife. If hazardous wildlife is detected, corrective actions should be implemented immediately.

3-9. GOLF COURSES. Golf courses may be beneficial to airports because they provide open space that can be used for noise mitigation or by aircraft during an emergency. On-airport golf courses may also be a concurrent use that provides income to the airport.

Because of operational and monetary benefits, golf courses are often deemed compatible land uses on or near airports. However, waterfowl (especially Canada geese) and some species of gulls are attracted to the large, grassy areas and open water found on most golf courses. Because waterfowl and gulls occur throughout the U.S., FAA recommends that airport operators exercise caution and consult with a wildlife damage management biologist when considering proposals for golf course construction or expansion on or near airports. Golf courses should be monitored on a continuing basis for the presence of hazardous wildlife. If hazardous wildlife is detected, corrective actions should be implemented immediately.

3-10. AGRICULTURAL CROPS. As noted above, airport operators often promote revenue-generating activities to supplement an airport's financial viability. A common concurrent use is agricultural crop production. Such use may create potential hazards to aircraft by attracting wildlife. Any proposed on-airport agricultural operations should be reviewed by a wildlife damage management biologist. FAA generally does not object to agricultural crop production on airports when: wildlife hazards are not predicted; the guidelines for the airport areas specified in 3-10.a-f. are observed; and the agricultural operation is closely monitored by the airport operator or sponsor to ensure that hazardous wildlife are not attracted.

NOTE: If wildlife becomes a problem due to on-airport agricultural operations, FAA recommends undertaking the remedial actions described in 3-10.f.

a. Agricultural activities adjacent to runways. To ensure safe, efficient aircraft operations, FAA recommends that no agricultural activities be conducted in the Runway Safety Area (RSA), OFA, and the OFZ (see AC 150/5300-13).

b. Agricultural activities in areas requiring minimum object clearances. Restricting agricultural operations to areas outside the RSA, OFA, OFZ, and Runway Visibility Zone (RVZ) (see AC 150/5300-13) will normally provide the minimum object clearances required by FAA's airport design standards. FAA recommends that farming operations not be permitted within areas critical to the proper operation of localizers, glide slope indicators, or other visual or electronic navigational aids. Determinations of minimal areas that must be kept free of farming operations should be made on a case-by-case basis. If navigational aids are present, farm leases for on-airport agricultural activities should be coordinated with FAA's Airway Facilities Division, in accordance with FAA Order 6750.16, *Siting Criteria for Instrument Landing Systems.*

NOTE: Crop restriction lines conforming to the dimensions set forth in Table 2 will normally provide the minimum object clearance required by

FAA airport design standards. The presence of navigational aids may require expansion of the restricted area.

c. Agricultural activities within an airport's approach areas. The RSA, OFA, and OFZ all extend beyond the runway shoulder and into the approach area by varying distances. The OFA normally extends the farthest and is usually the controlling surface. However, for some runways, the TSS (see AC 150/5300-13, Appendix 2) may be more controlling than the OFA. The TSS may not be penetrated by any object. The minimum distances shown in Table 2 are intended to prevent penetration of the OFA, OFZ, or TSS by crops or farm machinery.

NOTE: Threshold Siting standards should not be confused with the approach areas described in Title 14, Code of Federal Regulations, Part 77, (14 CFR 77), *Objects Affecting Navigable Airspace*.

d. Agricultural activities between intersecting runways. FAA recommends that no agricultural activities be permitted within the RVZ. If the terrain is sufficiently below the runway elevation, some types of crops and equipment may be acceptable. Specific determinations of what is permissible in this area requires topographical data. For example, if the terrain within the RVZ is level with the runway ends, farm machinery or crops may interfere with a pilot's line-of-sight in the RVZ.

e. Agricultural activities in areas adjacent to taxiways and aprons. Farm activities should not be permitted within a taxiway OFA. The outer portions of aprons are frequently used as a taxilane and farming operations should not be permitted within the OFA. Farming operations should not be permitted between runways and parallel taxiways.

f. Remedial actions for problematic agricultural activities. If a problem with hazardous wildlife develops, FAA recommends that a professional wildlife damage management biologist be contacted and an on-site inspection be conducted. The biologist should be requested to determine the source of the hazardous wildlife attraction and suggest remedial action. Regardless of the source of the attraction, prompt remedial actions to protect aviation safety are recommended. The remedial actions may range from choosing another crop or farming technique to complete termination of the agricultural operation.

Whenever on-airport agricultural operations are stopped due to wildlife hazards or annual harvest, FAA recommends plowing under all crop residue and harrowing the surface area smooth. This reduce or eliminate the area's attractiveness foraging wildlife. FAA recommends that this requirement be written into all on-airport farm use contracts and clearly understood by the lessee.

Table 2. Minimum Distances Between Certain Airport Features And Any On-Airport Agriculture Crops.

Aircraft Approach Category And Design Group [1]	Distance In Feet From Runway Centerline To Crop		Distance In Feet From Runway End To Crop		Distance In Feet From Centerline Of Taxiway To Crop	Distance In Feet From Edge Of Apron To Crop
	Visual & ≥ ¾ mile	< ¾ mile	Visual & ≥ ¾ mile	< ¾ mile		
Category A & B Aircraft						
Group I	200 [2]	400	300 [3]	600	45	40
Group II	250	400	400 [3]	600	66	58
Group III	400	400	600	800	93	81
Group IV	400	400	1,000	1,000	130	113
Category C, D & E Aircraft						
Group I	530 [3]	575 [3]	1,000	1,000	45	40
Group II	530 [3]	575 [3]	1,000	1,000	66	58
Group III	530 [3]	575 [3]	1,000	1,000	93	81
Group IV	530 [3]	575 [3]	1,000	1,000	130	113
Group V	530 [3]	575 [3]	1,000	1,000	160	138
Group VI	530 [3]	575 [3]	1,000	1,000	193	167

1. Design Groups are based on wing span, and Category depends on approach speed of the aircraft.

Group I: Wing span up to 49 ft.
Group II: Wing span 49ft. up to 78 ft.
Group III: Wing span 79 ft. up to 117 ft.
Group IV: Wing span 118 ft. up to 170 ft.
Group V: Wing span 171 ft. up to 213 ft.
Group VI: Wing span 214 ft. up to 261 ft.

Category A: Speed less than 91 knots
Category B: Speed 91 knots up to 120 knots
Category C: Speed 121 knots up to 140 knots
Category D: Speed 141 knots up to 165 knots
Category E: Speed 166 knots or more

2. If the runway will only serve small airplanes (12,500 lb. And under) in Design Group I, this dimension may be reduced to 125 feet; however, this dimension should be increased where necessary to accommodate visual navigational aids that may be installed. For example farming operations should not be allowed within 25 feet of a Precision Approach Path Indicator (PAPI) light box.

3. These dimensions reflect the TSS as defined in AC 150/5300-13, Appendix 2. The TSS cannot be penetrated by any object. Under these conditions, the TSS is more restrictive than the OFA, and the dimensions shown here are to prevent penetration of the TSS by crops and farm machinery.

SECTION 4. NOTIFICATION OF FAA ABOUT HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AN AIRPORT.

4-1. GENERAL. Airport operators, land developers, and owners should notify the FAA in writing of known or reasonably foreseeable land use practices on or near airports that either attract or may attract hazardous wildlife. This section discusses those notification procedures.

4-2. NOTIFICATION REQUIREMENTS FOR WASTE DISPOSAL SITE OPERATIONS. The Environmental Protection Agency (EPA) requires any operator proposing a new or expanded waste disposal operation within 5 statute miles of a runway end to notify the appropriate FAA Regional Airports Division Office and the airport operator of the proposal (40 CFR 258, *Criteria for Municipal Solid Waste Landfills*, section 258.10, *Airport Safety*). The EPA also requires owners or operators of new municipal solid waste landfill (MSWLF) units, or lateral expansions of existing MSWLF units that are located within 10,000 feet of any airport runway end used by turbojet aircraft or within 5,000 feet of any airport runway end used only by piston-type aircraft, to demonstrate successfully that such units are not hazards to aircraft.

a. Timing of Notification. When new or expanded MSWLFs are being proposed near airports, MSWLF operators should notify the airport operator and the FAA of this as early as possible pursuant to 40 CFR Part 258. Airport operators should encourage the MSWLF operators to provide notification as early as possible.

NOTE: AC 150/5000-3 provides information on these FAA offices.

b. Putrescible-Waste Facilities. In their effort to satisfy the EPA requirement, some putrescible-waste facility proponents may offer to undertake experimental measures to demonstrate that their proposed facility will not be a hazard to aircraft. To date, the ability to sustain a reduction in the numbers of hazardous wildlife to levels that existed before a putrescible-waste landfill began operating has not been successfully demonstrated. For this reason, demonstrations of experimental wildlife control measures should not be conducted in active aircraft operations areas.

c. Other Waste Facilities. To claim successfully that a waste handling facility sited within the separations identified in the siting criteria in 1-3 does not attract hazardous wildlife and does not threaten aviation, the developer must establish convincingly that the facility will not handle putrescible material other than that as outlined in 3-2. FAA requests that waste site developers provide a copy of an official permit request verifying that the facility will not handle putrescible material other than that as outlined in 3-2. FAA will use this information to determine if the facility will be a hazard to aviation.

4-3. NOTIFYING FAA ABOUT OTHER WILDLIFE ATTRACTANTS. While U. S. EPA regulations require landfill owners to provide notification, no similar regulations require notifying FAA about changes in other land use practices that can create hazardous wildlife attractants. Although it is not required by regulation, FAA requests those proposing land use changes such as those discussed in 2-3, 2-4, and 2-5 to provide similar notice to the FAA as early in the development process as possible. Airport operators that become aware of such proposed developme in the vicinity of their airports should also notify the FAA. The notification process gives the FAA an opportunity to evaluate the effect of a particular land use change on aviation safety.

The land use operator or project proponent may use FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, or other suitable documents to notify the appropriate FAA Regional Airports Division Office.

It is helpful if the notification includes a 15-minute quadrangle map of the area identifying the location of the proposed activity. The land use operator or project proponent should also forward specific details of the proposed land use change or operational change or expansion. In the case of solid waste landfills, the information should include the type of waste to be handled, how the waste will be processed, and final disposal methods.

4-5. FAA REVIEW OF PROPOSED LAND USE CHANGES.

a. The FAA discourages the development of facilities discussed in section 2 that will be located within the 5,000/10,000-foot criteria in 1-3.

b. For projects which are located outside the 5,000/10,000-foot criteria, but within 5 statute miles of the airport's aircraft movement areas, loading ramps, or aircraft parking areas, FAA may review development plans, proposed land use changes, operational changes, or wetland mitigation plans to determine if such changes present potential wildlife hazards to aircraft operations. Sensitive airport areas will be identified as those that lie under or next to approach or departure airspace. This brief examination should be sufficient to determine if further investigation is warranted.

c. Where further study has been conducted by a wildlife damage management biologist to evaluate a site's compatibility with airport operations, the FAA will use the study results to make its determination.

d. FAA will discourage the development of any excepted sites (see Section 3) within the criteria specified in 1-3 if a study shows that the area supports hazardous wildlife species.

4-6. AIRPORT OPERATORS. Airport operators should be aware of proposed land use changes, or modification of existing land uses, that could create hazardous wildlife attractants within the separations identified in the siting criteria in 1-3. Particular attention should be given to proposed land uses involving creation or expansion of waste water treatment facilities, development of wetland mitigation sites, or development or expansion of dredge spoil containment areas.

a. AIP-funded airports. FAA recommends that operators of AIP-funded airports, to the extent practicable, oppose off-airport land use changes or practices (within the separations identified in the siting criteria in 1-3) that may attract hazardous wildlife. Failure to do so could place the airport operator or sponsor in noncompliance with applicable grant assurances. FAA recommends against the placement of airport development projects pertaining to aircraft movement in the vicinity of hazardous wildlife attractants. Airport operators, sponsors, and planners should identify wildlife attractants and any associated wildlife hazards during any planning process for new airport development projects.

b. Additional coordination. If, after the initial review by FAA, questions remain about the existence of a wildlife hazard near an airport, the airport operator or sponsor should consult a wildlife damage management biologist. Such questions may be triggered by a history of wildlife strikes at the airport or the proximity of the airport to a wildlife refuge, body of water, or similar feature known to attract wildlife.

c. Specialized assistance. If the services of a wildlife damage management biologist are required, FAA recommends that land use developers or the airport operator contact the appropriate state director of the United States Department of Agriculture/Animal Damage Control (USDA/ADC), or a consultant specializing in wildlife damage management. Telephone numbers for the respective USDA/ADC state offices may be obtained by contacting USDA/ADC's Operational Support Staff, 4700 River Road, Unit 87, Riverdale, MD, 20737-1234, Telephone (301) 734-7921, Fax (301) 734-5157. The ADC biologist or consultant should be requested to identify and quantify wildlife common to the area and evaluate the potential wildlife hazards.

d. Notifying airmen. If an existing land use practice creates a wildlife hazard, and the land use practice or wildlife hazard cannot be immediately eliminated, the airport operator should issue a Notice to Airmen (NOTAM) and encourage the land owner or manager to take steps to control the wildlife hazard and minimize further attraction.

APPENDIX 1. DEFINITIONS OF TERMS USED IN THIS ADVISORY CIRCULAR.

1. GENERAL. This appendix provides definitions of terms used throughout this AC.

a. Aircraft movement area. The runways, taxiways, and other areas of an airport which are used for taxiing or hover taxiing, air taxiing, takeoff, and landing of aircraft exclusive of loading ramps and aircraft parking areas.

b. Airport operator. The operator (private or public) or sponsor of a public use airport.

c. Approach or departure airspace. The airspace, within 5 statute miles of an airport, through which aircraft move during landing or takeoff.

d. Concurrent use. Aeronautical property used for compatible non-aviation purposes while at the same time serving the primary purpose for which it was acquired; and the use is clearly beneficial to the airport. The concurrent use should generate revenue to be used for airport purposes (see Order 5190.6A, *Airport Compliance Requirements*, sect. 5h).

e. Fly ash. The fine, sand-like residue resulting from the complete incineration of an organic fuel source. Fly ash typically results from the combustion of coal or waste used to operate a power generating plant.

f. Hazardous wildlife. Wildlife species that are commonly associated with wildlife-aircraft strike problems, are capable of causing structural damage to airport facilities, or act as attractants to other wildlife that pose a wildlife-aircraft strike hazard.

g. Piston-use airport. Any airport that would primarily serve FIXED-WING, piston-powered aircraft. Incidental use of the airport by turbine-powered, FIXED-WING aircraft would not affect this designation. However, such aircraft should not be based at the airport.

h. Public-use airport. Any publicly owned airport or a privately-owned airport used or intended to be used for public purposes.

i. Putrescible material. Rotting organic material.

j. Putrescible-waste disposal operation. Landfills, garbage dumps, underwater waste discharges, or similar facilities where activities include processing, burying, storing, or otherwise disposing of putrescible material, trash, and refuse.

k. Runway protection zone (RPZ). An area off the runway end to enhance the protection of people and property on the ground (see AC 150/5300-13). The dimensions of this zone vary with the design aircraft, type of operation, and visibility minimum.

l. Sewage sludge. The de-watered effluent resulting from secondary or tertiary treatment of municipal sewage and/or industrial wastes, including sewage sludge as referenced in U.S. EPA's *Effluent Guidelines and Standards*, 40 C.F.R. Part 401.

m. Shoulder. An area adjacent to the edge of paved runways, taxiways, or aprons providing a transition between the pavement and the adjacent surface, support for aircraft running off the pavement, enhanced drainage, and blast protection (see AC 150/5300-13).

n. Turbine-powered aircraft. Aircraft powered by turbine engines including turbojets and turboprops but excluding turbo-shaft rotary-wing aircraft.

o. Turbine-use airport. Any airport that ROUTINELY serves FIXED-WING turbine-powered aircraft.

p. Wastewater treatment facility. Any devices and/or systems used to store, treat, recycle, or reclaim municipal sewage or liquid industrial wastes, including Publicly Owned Treatment Works (POTW), as defined by Section 212 of the Federal Water Pollution Control Act (P.L. 92-500) as amended by the Clean Water Act of 1977 (P.L. 95-576) and the Water Quality Act of 1987 (P.L. 100-4). This definition includes any pretreatment involving the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. (See 40 C.F. R. Section 403.3 (o), (p), & (q)).

Electronic or visual vertical guidance on each runway – In 1993, a report of the U.S. House Committee on Public Works and Transportation stated that, "To date, FAA's installation of vertical visual guidance systems has occurred on a relatively limited basis. There are numerous runways used by commercial air carriers that have neither an instrument landing system nor a vertical visual guidance system. Because this visual guidance equipment can greatly enhance safety, the Committee believes it is necessary to provide such equipment, particularly on non-ILS equipped runways." The Committee directed the FAA to, within six months of the enactment of the 1993 Aviation Infrastructure Investment Act, "compile a list of all non-ILS equipped commercial service runways also not equipped with a vertical visual guidance system and a plan for equipping them." Five years later, no list has been produced and there is no plan for installing vertical visual guidance equipment per that directive.

Runway safety areas – Within the same report, the Committee also expressed its concern about "the problem of inadequate safety areas beyond the ends of runways at certificated airports" which has resulted in preventable airline accidents. The FAA was, again, given six months to "complete a study and a cataloguing of runways used by air carriers at certificated airports to determine which runway safety areas do not meet current FAA standards." The agency was also directed to determine the costs and feasibility of bringing inadequate runway safety areas up to current standards. Regrettably, the FAA has also failed to produce such a study and, as a result, no progress is being made on this front, where the difference between a minor incident and a major accident can be a few hundred feet of cleared safety area.

Mr. Chairman, I submit that these are serious failures by the FAA to address serious safety issues. While we have the utmost respect for the professional men and women who comprise the FAA, these omissions must be rectified expeditiously to provide the level of safety that the traveling public deserves and Congress has recommended.

Wildlife Hazards

ALPA's Airport Standards Committee has been at the forefront of an effort begun in the fall of 1996 to generate greater awareness about the problem of wildlife hazards as they affect aviation safety. ALPA was instrumental in the creation of, and co-chairs, the industry/government Wildlife Hazards Working Group (WHWG) comprised of airport, airline and pilot organizations in addition to FAA, USDA, the USAF and consultants. This group has successfully collaborated to heighten the awareness of the potential for wildlife strikes, promoted data collection efforts and developed other methods for addressing this problem.

A few facts of interest about wildlife hazards:

> Since 1995, 74 people have been killed in collisions worldwide between aircraft and birds and four large aircraft have been destroyed. One of these accidents resulted from a USAF AWACs E-3 (modified B707) striking a flock of geese at Elmendorf Air Force Base in Alaska in September 1995 which resulted in the loss of 24 lives at a cost of $189 million.
>
> By the FAA's estimate, over $250 million a year is lost to U.S. aviation interests due to conflicts with wildlife.
>
> Resident/non-migratory goose populations tripled from 1985-1995. Goose collisions with aircraft have doubled since 1990. Experts have determined that there is a 25% chance of a hull loss by the year 2006 due to a bird strike.
>
> The USDA and FAA are working jointly to develop wildlife strike statistics to determine the magnitude and nature of the hazard. The agencies published a document entitled *Wildlife Strikes to Civil Aircraft in the United States 1992-1996* dated August 1997 which details 11,571 wildlife strikes which were reported to the FAA during that time. Commercial aviation accounted for 75% of these strikes, an average of 1,727 strikes each year during that period. Ninety seven (97) percent of these strikes were caused by bird species which are

AR 036001

federally protected under the Migratory Bird Treaty Act; birds and other animals often find habitat and refuge at and around airports because of federal protections.

NTSB Member John Goglia has stated that he believes measures taken against the wildlife hazard should be elevated to the level of a terrorist threat and addressed accordingly. USDA Assistant Secretary Mike Dunn has remarked that "there has never been a greater potential for catastrophe than today with conflict between aviation and wildlife."

We have been very fortunate in this country in that we have not lost an air carrier aircraft due to wildlife strikes for several years. However, we cannot realistically expect that this situation will continue. As proof of this view, we are providing with this testimony a report (attachment 1) on a recent air carrier bird strike which could easily have resulted in catastrophe, except for the superior airmanship demonstrated by the flight crew. The aircraft was a 727-200 departing Houston Intercontinental Airport -- a summary of this event as described by the First Officer follows:

> "On departure from Houston, passing approximately 6,000 feet, in climb and accelerating, we hit what appeared to be a flock of large white birds. I saw a flash of white objects, followed immediately by the loud bang of multiple hits. The aircraft began to vibrate or shudder, and the noise level in the cockpit was extremely loud. With volume all the way up, I could barely make out radio transmissions. At first I could not hear the Second Officer at all, and communications with the Captain were difficult. A second shudder occurred, which I now believe was part of the radome and/or the radar antenna separating from the aircraft. The noise level in the cockpit made normal crew coordination and checklist disciple extremely difficult. The number one engine was running, but at a reduced level, with oscillating indications . . . I was still flying the aircraft but had no accurate airspeed indications . . . we were fortunate to have a line check Second Officer in the cockpit giving Initial Operating Experience to a new hire engineer."

The airplane was flying at 280 knots indicated airspeed when it hit the birds. The aircraft's number one engine lost power, severe damage was incurred by the number two engine, and the number three engine pylon and strut were damaged. Wing damage occurred on the leading edges, flaps and slats. The radome and the first officer's pitot tube were severed from the aircraft.

In spite of this accident and others like it, we have observed reluctance by some federal regulators, air carriers and airport operators to acknowledge the severe threat posed by wildlife hazards and take appropriate remedial action. We believe that they likely view wildlife strikes as entirely random, coincidental "acts of God" which are unavoidable and unpreventable. We strongly disagree with such a notion, and the ability to manage wildlife through a variety of measures at numerous airports proves it to be erroneous.

Federal Aviation Regulations require certificated airports to conduct ecological studies when air carriers experience multiple bird strikes, have damaging collisions with wildlife, or observe wildlife in size or numbers than could cause collisions. When such an event occurs, the FAA requires action, but does not have ample wildlife management staff expertise to assist the airports. Therefore, FAA often refers airports to the U.S. Department of Agriculture's Wildlife Services biologists who have the expertise, but are not funded, to provide these services. USDA has developed wildlife hazard evaluations and management plans, and implemented these plans for some airports with the costs being fully reimbursed by the airports. As a result, wildlife-aircraft strikes have been reduced significantly at specific locations. For example, at John F. Kennedy International Airport, gull strikes have been reduced by over 75 percent and at O'Hare International Airport, bird and deer strikes have been reduced by 70 and 100 percent, respectively. However, many airports have ongoing wildlife problems which have not been addressed in such a proactive manner.

Further, most airlines have not yet taken steps to safeguard against wildlife strikes. Most commercial airline pilots are not trained on wildlife avoidance and FAA guidance to pilots on this subject is not well

q. Wildlife. Any wild animal, including without limitation any wild mammal, bird, reptile, fish, amphibian, mollusk, crustacean, arthropod, coelenterate, or other invertebrate, including any part, product, egg, or offspring there of (50 CFR 10.12, *Taking, Possession, Transportation, Sale, Purchase, Barter, Exportation, and Importation of Wildlife and Plants*). As used in this AC, WILDLIFE includes feral animals and domestic animals while out of the control of their owners (14 CFR 139.3, *Certification and Operations: Land Airports Serving CAB-Certificated Scheduled Air Carriers Operating Large Aircraft (Other Than Helicopters)*).

r. Wildlife attractants. Any human-made structure, land use practice, or human-made or natural geographic feature, that can attract or sustain hazardous wildlife within the landing or departure airspace, aircraft movement area, loading ramps, or aircraft parking areas of an airport. These attractants can include but are not limited to architectural features, landscaping, waste disposal sites, wastewater treatment facilities, agricultural or aquacultural activities, surface mining, or wetlands.

s. Wildlife hazard. A potential for a damaging aircraft collision with wildlife on or near an airport (14 CFR.139.3).

2. RESERVED.

STATEMENT OF

CAPTAIN J. RANDOLPH BABBITT, PRESIDENT

AIR LINE PILOTS ASSOCIATION

BEFORE THE SUBCOMMITTEE ON AVIATION

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

U.S. HOUSE OF REPRESENTATIVES

AIP REAUTHORIZATION

MARCH 25, 1998

Good morning, Mr. Chairman, I am Captain J. Randolph Babbitt, President of the Air Line Pilots Association (ALPA). I am accompanied today by Captain David Haase, ALPA's Executive Central Air Safety Chairman. ALPA represents the professional interests of 49,000 pilots who fly for 48 airlines in the United States and Canada. We appreciate the opportunity to appear before you today to discuss the issue of airport funding. With your permission, we will also present information on several issues about which we believe Congress should be informed, or updated on, that impact aviation safety and security.

As you know, ALPA was represented on the National Civil Aviation Review Commission (NCARC). ALPA obviously has a strong interest in the development of recommendations which are aimed at enhancing aviation safety; perhaps less obvious is our interest in aviation capacity and efficiency, due to their impact on the livelihoods of our members.

ALPA strongly supports the NCARC's recommendations to:

> Establish airport capital requirements funding at a minimum of $2 billion annually over the next five years. In fact, we recommended a level of $2.7 billion to the NCARC to ensure that small airports have access to capital needed to comply with airport certification requirements.
>
> Ensure that the Airport Improvement Program (AIP) is treated within the federal budget with long term commitment and stability.
>
> Fund smaller airports at a higher level, due to their inability to self-finance needed improvements.

FAA Inaction on Airport Safety Issues

We have been most disappointed by the FAA's unresponsiveness to Congressional directives on two matters of significant interest to ALPA. Our most recent statement to this Subcommittee about reauthorization of the AIP, dated May 3, 1996, expressed our concern that those charged with improving airport safety had failed to provide a plan to implement certain safety enhancements. Two years later, our concern is the same. Section 47101(f) of the AIP statute states, in part:

> This subchapter must be carried out consistently with a comprehensive airspace system plan, giving highest priority to commercial service airports, to maximize use of safety facilities including installing, operating, and maintaining [certain safety enhancements].

The law lists 10 separate safety items which are to be maximally implemented. We stated two years ago, and reiterate today, that the FAA has failed to make several of these items safety priorities. Following are comments on two of the items listed in the law:

developed.

There are several areas in which the federal government can assist in mitigating the threat to public safety posed by wildlife. We recommend that:

Congress create a multi-year authorization of at least $450,000 per year for wildlife hazard mitigation measures and management of the FAA's wildlife strike data base.

Congress encourage affected federal agencies to create a memorandum of understanding (MOU) aimed at resolving areas of conflict as regards wildlife mitigation measures. The MOU should also designate airports and the areas around them as "wildlife incompatible" for the protection of both the traveling public and animals.

Congress create a multi-year authorization of at least $600,000 per year for the federal government to perform wildlife surveys at airports.

FAA encourage airport operators to treat wildlife hazards as the serious threat to aviation safety that they are, by urging them to conduct wildlife surveys and institute wildlife mitigation measures aimed at keeping birds and animals away from the airport environs.

FAA hire a full-time wildlife biologist at its Technical Center to perform wildlife hazard research. The agency employed a wildlife biologist until fairly recently, when the position was eliminated due to a funding shortfall. An FAA Aircraft Rescue and Firefighting expert has been assigned the additional duties of staffing wildlife issues, which we find to be inadequate for a public safety hazard of this magnitude.

NTSB perform investigations on aircraft accidents which occur due to wildlife strikes, such as the B727-200 that departed Houston as described above. If that accident had occurred for any other reason (e.g., faulty parts, haphazard maintenance, pilot error, etc.), it would have received the full attention of the FAA, NTSB and the media. That accident was not investigated by the NTSB, in spite of the significant damage done to the aircraft and great risk faced by the passengers and crew.

Small Airport Certification

On November 19, 1996, a United Express B-1900 aircraft collided during roll out with a privately owned Beechcraft King Air at the Quincy, Illinois, municipal airport. The United Express aircraft was completing its landing roll and the King Air was in its takeoff roll on an intersecting runway. The collision occurred at the runway intersection and all occupants of both aircraft, 14 persons in all, were killed.

The Quincy Airport has an aircraft rescue and firefighting truck which stands by 15 minutes before and 15 minutes after air carrier operations involving aircraft having more than 30 passenger seats. At the time of the regional airliner accident, the airport did not have a timely ARFF response capability, nor was it required to do so under the Limited certificate issued to it by the FAA.

The NTSB, in its report on the ensuing investigation of this accident, concluded that "If on-airport aircraft rescue and fire fighting equipment protection had been required for this operation at Quincy Airport, lives might have been saved." According to NTSB, the "impact forces were at a survivable level for the occupants of both airplanes."

The federal government began movement toward certification of small airports with the publication of a 1987 GAO Report entitled "Aviation Safety -- Commuter Airports should Participate in the Airport Certification Program." That report explained how safety could be enhanced by requiring small airports serving aircraft with 10-30 passenger seats to be regulated by the FAA. Congress became actively involved in the issue by expanding the FAA's authority to certificate such airports through language included in the Federal Aviation Authorization Act of 1996. ALPA submitted testimony to the

2C-1

King County Executive
RON SIMS

RECEIVED
20 APR 1998

April 10, 1998

Jonathan Freedman, Project Manager
United States Army Corps of Engineers
Post Office Box 3755
Seattle, WA 98124-2255

Dear Mr. Freedman:

This letter is to clarify communications that you have received from King County regarding the Port of Seattle's Application 96-5-03436 for a 404 permit for the proposed master plan expansion at SeaTac Airport.

You previously received a letter dated January 20, 1998 from David Masters, Watershed Coordinator for the Central Puget Sound Watershed Forum. I wish to clarify that the letter prepared by Mr. Masters reflects the interests of the interjurisdictional group for which he is the coordinator, the Central Puget Sound Watershed Forum. This letter does not constitute the official position of King County regarding the Port's Master Plan or the 404 application.

It is my understanding that since this letter was written a meeting has occurred between resource agency representatives, the Corps, and the Port. I am told that the resource agencies raised a number of potential issues at this meeting, some of which were similar to issues raised in Mr. Masters' letter. I am also told that the Port representatives were able to resolve several concerns through presentation and clarification of existing information, and that the Port committed to providing additional written information summarizing the changes in project details and providing detailed information on bird-strikes at the airport.

It is my expectation that the Port will continue to make a good faith effort to address all of the legitimate concerns raised during the permit review process.

Sincerely,

Paul Tanaka
Deputy King County Executive

PT:pr

KING COUNTY COURTHOUSE 516 THIRD AVENUE, ROOM 400 SEATTLE, WA 98104-3271
(206) 296-4040 296-0194 FAX 296-0200 TDD E-mail: ron.sims@metrokc.gov

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RANDOLPH PARSONS
CHAIRPERSON
CITY OF BURIEN
PLANNING COMMISSION
2727 SW 149TH PL.
BURIEN, WA. 98166-1657
206-439-92

1/27/98

City of Burien, Washington

THE BURIEN PLAN

PLEASE REVIEW IN PARTICULAR THE ENCLOSED POLICIES, GOALS, OPPORTUNITIES & CONSTRAINTS. WE EXPECT THE SAME CAREFUL PROTECTION OF OUR AQUATIC RESOURCES BY THE USACOE & WDOE.

THE COMPREHENSIVE PLAN FOR THE CITY OF BURIEN, WASHINGTON

November, 1997

VOLUME I

be available within three years. Adequate public facilities and their corresponding levels of service include:

- Streets: New development or redevelopment shall meet the level of service defined in policy TR 1.1, the mitigation requirements contained in policy TR 1.3, and the street construction standards identified in policy TR 2.7 or as adopted by ordinance.

- Water: New development and redevelopment shall meet the requirements for water set forth in policy UT 1.6 or as adopted by ordinance.

- Sewer: New development and redevelopment shall meet the requirements for sewer as identified in policy UT 1.6 or as adopted by ordinance.

- Storm drainage: New development and redevelopment shall meet the requirements of the Storm Water Element and the provisions of the King County Surface Water Design Manual as adopted by ordinance.

Natural Environment

Goal EV.1

Preserve and enhance environmentally sensitive areas in order to protect public health, safety, and welfare, and to maintain the integrity of the natural environment.

Pol. EV 1.1 The City of Burien's Sensitive Areas Map shall be used as a reference for identifying the City's environmentally sensitive areas. Other unmapped sensitive areas do exist throughout the city. Any site containing environmentally sensitive areas are subject to the special development regulations and conditions found in the City's Environmentally Sensitive Areas Ordinance.

Pol. EV 1.2 Development should be directed toward areas where their adverse impacts on environmentally sensitive areas can be minimized.

Pol. EV 1.3 The City shall maintain a system of development regulations and a permitting system to prevent the destruction of environmentally sensitive areas. Development regulations should at a minimum address wetland protection, aquifer recharge areas important for potable water, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas.

AR 036008

Pol. EV 1.4 The City shall require permit review approval before any activity or construction is allowed to occur in, adjacent to, or impact an environmentally sensitive area.

Discussion: A permit is required because environmentally sensitive areas are susceptible to degradation from incompatible uses or activities including, improper clearing, grading, filling, refuse dumping, and construction.

Pol. EV 1.5 If no feasible alternative exists, a limited amount of development may occur on wetlands and floodplains. In these instances, a broad range of site planning techniques should be explored to minimize impacts on these environmentally sensitive areas.

Discussion: Clustering and appropriately designed housing types can allow for a more environmentally sensitive site plan by concentrating development on the most buildable portion of a site while preserving natural drainage, wetlands and other natural features. Greater attention to site design, including the use of buffers, can enhance aesthetic appeal, neighborhood compatibility, and resource protection.

Pol. EV 1.6 Clustering of housing units may be allowed on lots designated for residential development that contains steep slopes and are located adjacent to an urban environment.

Discussion: This policy is intended to allow a more gradual transition from the urban environments (containing multifamily and commercial development) along Ambaum Boulevard eastward to the steep sloped areas designated for lower density single family residential development that are adjacent to Salmon Creek Ravine and Seahurst Park. This policy would allow a property owner to use the full development potential of the lot by concentrating development on the buildable portion of the lot, while protecting the steep sloped portion from development.

Pol EV 1.7 The City shall develop land use regulations to buffer environmentally sensitive areas from the impacts of adjacent land uses.

Goal EV.2

Maintain and promote a safe and healthy environment and preserve the quality of life in Burien.

Pol. EV 2.1 The City shall ensure that uses and development in shoreline areas is compatible with the shoreline environments designated in the City's

AR 036009

Shoreline Master Program. Adherence to these designations will ensure that sensitive habitat, ecological systems, and other shoreline resources are protected.

Discussion: Shoreline designations within the City are as follows: "Conservancy" designation is applied from the north end of Seahurst Park southwards to approximately the northern end of 28th Ave SW. "Urban" designation is applied to the remainder of the Puget Sound shoreline within Burien, as well as to the shoreline of Lake Burien.

Surface Water Quality

Pol. EV 2.2 Stream banks and stream channels should be maintained or restored to their natural condition wherever such conditions or opportunities exist.

Pol. EV 2.3 The capacity of natural drainage courses shall not be diminished by development or other activities.

Pol. EV 2.4 The City shall consider the impacts of new development on water quality as part of its environmental review process and require where appropriate any mitigation measures.

Pol. EV 2.5 The City Shoreline Master Program, hereby adopted as an element of this Plan, shall govern the development of all designated Shorelines of the City. Lands adjacent to these areas shall be managed in a manner consistent with this Program.

Air Quality

Pol. EV 2.6 The City will continue to support and rely on the various State, Federal, local and regional programs to protect and enhance air quality.

Pol. EV 2.7 The City shall encourage the retention of vegetation and encourage landscaping in new developments in order to provide filtering of suspended particulates.

Pol. EV 2.8 The City shall consider the impacts of new development on air quality as a part of its environmental review process and require mitigating measures as may be appropriate.

AR 036010

Vegetative Quality

Pol. EV 2.9 The City shall consider the impacts of new development on the quality of land, wildlife and vegetative resources as a part of its environmental review process and require any appropriate mitigating measures. Such mitigation may involve the retention of significant habitats.

Pol. EV 2.10 The City shall encourage the preservation of existing vegetation and use of landscaping as an integral part of development plans.

Pol. EV 2.11 The City should consider developing and implementing a measure which would preserve trees of historical significance.

Hazardous Materials

Pol. EV 2.12 The storage and disposal of any hazardous material shall be done only in strict compliance with applicable city, state and federal law.

Pol. EV 2.13 The City shall consider the impacts of new development on the risk of hazardous materials as a part of its environmental review process and require any appropriate mitigating measures.

Pol. EV 2.14 No development shall occur on land determined to be contaminated until mediation has been completed between all parties involved. The city will obtain county, Federal and state resources to address issues.

Goal EV.3

Promote soil stability and to ensure against the loss of both public and private property in areas with steep slopes.

Pol. EV 3.1 As slope increases, development intensity, site coverage, and vegetation removal should decrease and thereby minimize the potential for drainage problems, soil erosion, siltation and landslides. Slopes of 40 percent or greater should be retained in a natural state, free of structures and other land surface modifications.

1. Single family homes and detached single-family garages on existing legally established tax lots are exempted from this restriction, provided that:

   a. The application of this restriction would deny any appropriate use of this property;

   b. There is no other appropriate economic use with less impact;

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c. The proposed development does not pose a threat to public health, safety or welfare on or off the development site;

d. Any alterations permitted to the sensitive area shall be the minimum necessary to allow for economic use of the property;

e. An analysis of soils, footings and foundations, and drainage be prepared by qualified professionals, certifying that the proposed activity is safe and will not adversely affect the steep slope hazard area or buffer; and

f. There are adequate plans, as determined by the City, for stormwater and vegetation management.

2. Short plats or other divisions of an existing legal tax lot shall only be approved if all resulting lots are buildable under this restriction.

3. It is the applicant's responsibility to show that these provisions are met through an appropriate mechanism such as, or similar to, the SEPA process.

Pol. EV 3.2 The City should prohibit development on areas prone to erosion and landslide hazards. Further, the City should restrict development on potentially unstable land to ensure public safety and conformity with existing natural constraints, unless the risks and adverse impacts associated with such development can be appropriately mitigated.

Pol. EV 3.3 The City should require development proposals to include measures to stabilize soils, hillsides, bluffs and ravine sidewalls and to promote wildlife habitat by retaining or restoring native vegetation.

Pol. EV 3.4 The City should consider developing policies that balance the removal of vegetation to preserve and enhance views with the need to retain vegetation to promote slope stability and open space.

Pol. EV 3.5 Land uses on steep slopes should be designed to prevent property damage and environmental degradation, and to enhance open space and wildlife habitat.

Pol. EV 3.6 Where there is a high probability of erosion, grading should be kept to a minimum and disturbed vegetation should be restored as soon as feasible. In all cases, the City shall require appropriate site design and construction measures to control erosion and sedimentation.

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Goal EV. 4

Conserve fish and wildlife resources and maintain bio-diversity.

Pol. EV 4.1 The City should maintain and enhance existing species and habitat diversity including fish and wildlife habitat that supports the greatest diversity of native species.

Pol. EV 4.2 All development activities shall be located, designed, constructed and managed to avoid disturbance of adverse impacts to fish and wildlife resources, including spawning, nesting, rearing and habitat areas and migratory routes.

Pol. EV 4.3 Fish and wildlife habitat should be protected, conserved and enhanced, including:

a. Habitats for species which have been identified as endangered, threatened, or sensitive by the state or federal government;

b. Priority species and habitats listed in the Adopted King County Comprehensive Plan, November 1994;

c. Commercial and recreational shellfish areas;

d. Kelp and eel-grass beds;

e. Herring and smelt spawning areas; and

f. Wildlife habitat networks designated by the City.

Pol. EV 4.4 Fish and wildlife should be maintained through conservation and enhancement of terrestrial, air and aquatic habitats.

Pol. EV 4.5 The City shall be a good steward of public lands and should integrate fish and wildlife habitats into capital improvement projects whenever feasible.

Pol. EV 4.6 The City shall work with adjacent jurisdictions and state, federal and tribal governments during land use plan development review to identify and protect habitat networks that follow or are adjacent to jurisdictional boundaries.

Pol. EV 4.7 The City should ensure that habitat networks throughout the City are designated and mapped. The network should be of sufficient width to protect habitat and dispersal zones for small mammals, amphibians, reptiles, and birds. These networks should be protected through incentives,

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regulation and other appropriate mechanisms. Site planning should be coordinated during development review to ensure that connections are made or maintained amongst segments of the network.

Pol. EV 4.8 Native plant communities and wildlife habitats shall be integrated with other land uses where possible. Development shall protect wildlife habitat through site design and landscaping. Landscaping, screening, or vegetated buffers required during development review shall retain, salvage and/or reestablish native vegetation whenever feasible. Development within or adjacent to wildlife habitat networks shall incorporate design techniques that protect and enhance wildlife habitat values.

Pol. EV 4.9 The City should protect salmonid habitats by ensuring that land use and facility plans (transportation, water, sewer, power, gas) include riparian habitat conservation measures developed by the City, affected tribes, and/or state and federal agencies. Development within basins that contain fish enhancement facilities must consider impacts to those facilities.

Pol. EV 4.10 In order to minimize adverse impacts related to noise, fish and wildlife habitat conservation areas within the City shall be protected from exterior noise levels which exceed 55 dBA Ldn.

Pol. EV 4.11 The City shall promote voluntary wildlife enhancement projects which buffer and expand existing wildlife habitat, through educational and incentive programs for individuals and businesses.

Goal EV.5

Protect, improve and sustain ground water quality and quantity through sound and innovative environmental management.

Pol. EV 5.1 The City hereby adopts King County's Preliminary Map of Areas Highly Susceptible to Ground Water Contamination designating Critical Aquifer Recharge Areas, including any subsequent amendments.

Pol. EV 5.2 The City shall protect the quality and quantity of groundwater by:

a. Placing priority on implementation of the South King County Groundwater Management Plan;

b. Developing a process by which the City will review, and implement, as appropriate, Wellhead Protection Programs in conjunction with adjacent jurisdictions and ground water purveyors, and adopting best management practices for new development recommended by the South King County

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Groundwater Management Plan. The goals of those practices should be to promote aquifer recharge quality and quantity; and

c. Refining regulations as appropriate to protect critical aquifer recharge areas based on information derived through the preparation of Groundwater Management Plans and Wellhead Protection Programs.

Pol. EV 5.3 The City shall protect ground water recharge by promoting methods that infiltrate runoff where site conditions permit, except where potential groundwater contamination cannot be prevented by pollution source controls and stormwater pretreatment.

Pol. EV 5.4 In making future zoning decisions, the City shall evaluate and monitor ground water policies, their implementation costs, impacts upon the quantity and quality of groundwater and the need for new water supplies.

Wetlands

Goal EV.6

Protect and enhance the functions and values of the City's wetlands.

Pol. EV 6.1 The City shall protect its wetlands with an objective of no overall net-loss of functions and values.

Pol. EV 6.2 All wetland functions should be considered in evaluating wetland mitigation proposals, including fish and wildlife habitat, flood storage, water quality, recreation, educational opportunities, and aesthetics.

Pol EV 6.3 The City will protect wetlands by maximizing infiltration opportunities and promoting the conservation of forest cover and native vegetation.

Pol. EV 6.4 Mitigation for any adverse impacts on wetlands shall be provided in the same basin within which the impacts occur.

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Environmental Quality

Goal EQ.1

Recognize the significant role that the natural environment plays in creating a healthy and attractive community.

Discussion: *Trees, landscaping, and open space all contribute to community image, while providing wildlife habitat and recreational opportunities. It is important to ensure that these natural features are conserved and enhanced so that they provide physical separation and some visual relief to the built environment.*

Pol. EQ 1.1 To enhance the community's appearance, identity and natural beauty, the City shall promote the conservation and retention of trees of local and historical significance. The use and incorporation of non-invasive native vegetation into landscaping and buffer areas and is also encouraged for new development.

Pol. EQ 1.2 The City should maintain, protect and enhance greenbelts riparian corridors and wildlife habit corridors so that the extent and intensity of the built environment is balanced by these natural features.

Pol. EQ 1.3 The City shall work with property owners to encourage non-purchase options such as conservation easements, current use easements, and development covenants to preserve open space and greenbelts within the city's neighborhoods. The City should also accept donations of properties where public access is anticipated or planned.

Neighborhood Quality

Goal NQ.1

Reinforce and enhance the well-established character of the City's neighborhoods.

Discussion: *An important part of the Burien Vision is reinforcing the character of the well-established neighborhoods as the City continues to grow. Measures to accomplish this need to address "blending" infill, redevelopment and new development with existing neighborhoods, balancing development with preservation of open space, regulating site design to enhance the sense of community, and mitigating the impacts of traffic.*

Pol. NQ 1.1 Design guidelines shall be used to support and enhance the character of the City's well-established neighborhoods. However, the City may vary design guidelines, standards and requirements within and between the residential areas of the City, based on the neighborhood's unique "character."

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pedestrian-bicycle trail along 1st Avenue South. Burien should ensure that its local non-motorized trail system that links parks, schools, recreation and open space resources is connected to this pedestrian-bicycle facility as it passes through the City.

Pol. PRO 5.7 Where feasible, the City should encourage the multiple use of existing facilities by incorporating storm drainage *facilities, especially retention ponds,* and other public lands into the open space or park system *to enhance recreational opportunities and improve wildlife habitat.* This should be accomplished through cooperative agreements with the appropriate agency or jurisdiction.

Discussion: These stormwater retention facilities could include the Hermes Depression and other retention ponds owned by the City. These facilities could serve as important community resources, and be linked to the network of community paths and trails, and used by school science programs.

Pol. PRO 5.8 The City should create a community path network that connects neighborhoods and activity centers, and links the existing nature trails at Seahurst Park with those at the future SeaTac Regional Park.

Pol. PRO 5.9 The City should actively seek funding from a variety of sources to help implement a park, recreation and open space acquisition and development program.

Open Space Areas

Goal OS.1

Protect and preserve as open space areas that:

- ***are ecologically significant sensitive areas;***
- ***serve as buffers between uses and link open space; and***
- ***provide trails, wildlife corridors and greenways.***

Pol. OS 1.1 The City shall seek to protect as open space, areas where the soils have been identified as having severe or very severe erosion potential, landslide hazard or seismic hazard.

Pol. OS 1.2 The City shall seek to retain as open space, those areas that provide essential habitat for any rare, threatened or endangered plant or wildlife species.

Pol. OS 1.3 The City shall seek to retain as open space, those areas having a unique combination of open space values, including: separation or buffering

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between incompatible land uses; visual delineation of the City or a distinct area or neighborhood of the City; unusually productive wildlife habitat; floodwater or stormwater storage; stormwater purification; recreational value; aesthetic value; and educational value.

Pol. OS 1.4 Development within areas designated for open space uses shall, in general, be low density or non-intensive in character. Developments shall be designed and sited in a manner that minimizes or mitigates disruption of the most important open space values of the site. Appropriate uses within designated open space areas may, under proper circumstances, include (but not necessarily be limited to): parks and other recreational facilities; very low density residential; stormwater storage; agriculture; and watershed. It is recognized that designating private property for open space uses does not establish or promote any public access rights to such property.

Pol. OS 1.5 The City should promote the use of property tax reductions as an incentive to preserve desirable lands as a public benefit. The City should also encourage and support the participation of community-based non-profit organizations which offer options and alternatives to development in the interest of preserving desirable lands as a public benefit.

Pol. OS 1.6 The City should work with property owners and encourage non-purchase options to preserve open spaces and greenbelts within neighborhoods, including using conservation easements, current use assessment, and development covenants. The City should also accept donations of properties where public access is anticipated or planned.

Culture and Arts

Goal CA.1

Develop a diversity of cultural and art resources within the City to meet the needs of City residents, employees and visitors.

Pol. CA 1.1 Public art and theater and performing facilities are considered appropriate types of park resources for the City, and should be planned for and developed. The City should promote partnerships between other agencies, private organizations, and individuals in order to meet the needs of the general community for these facilities.

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STORM WATER ELEMENT

Goal ST.1

Manage stormwater runoff in such a manner as to:

- ***protect steep slopes, streams, wetlands and shorelines from erosion and sedimentation to avoid the degradation of environmental quality, wildlife habitat, and natural system aesthetics;***
- ***protect the quality of surface water and groundwater;***
- ***provide recharge of groundwater where appropriate; and***
- ***ensure natural control mechanisms are preferred, where appropriate.***

Managing Stormwater (General)

Pol. ST 1.1 The City shall separately adopt a detailed Storm Drainage Master Plan to implement these stormwater policies based on this comprehensive plan. This plan shall:

a. Provide a plan of drainage improvements and regulatory actions that will reduce or eliminate local erosion, landslide and flooding problems in Burien, thereby protecting existing and future development and property values;

b. Provide protection from erosion, landslides and flooding in the Puget Sound basins where perennial and seasonal streams exist, and also protect these streams from the impacts of urban runoff;

c. Provide for the long-term protection and restoration of Miller Creek as a viable fish habitat and a natural amenity for the urban area; and

d. Provide long-term protection and restoration of Salmon Creek downstream of Ambaum Boulevard SW from Salmon Creek Ravine to the Puget Sound as a viable fish habitat and a natural amenity for the urban area.

Pol. ST 1.2 The City should encourage regional approaches to managing stormwater to provide improved performance, maintenance and cost efficiency.

Pol. ST 1.3 Wherever possible, stormwater facilities should be considered as a multi-functional community resource which provides other public benefits such as recreational, habitat, cultural, educational, open space and aesthetic opportunities.

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Pol. ST 1.4 Stormwater retention/detention facilities may be allowed to be used as partial fulfillment of open space requirements, where the facility provides significant recreation and open space amenities. In determining the degree to which this is allowed, consideration shall be given to the nature of the development. Where the development is non-residential, a greater percentage may be allowed for fulfillment. Commercial development should be encouraged to make retention/detention facilities part of a more extensive landscaping. These facilities should be designed as an amenity, particularly in commercial developments, and to ensure the safety of its users.

Pol. ST 1.5 A watershed approach should be taken to surface water management, with responsibility shared among the City and other contributing jurisdictions. This approach should emphasize:

a. Prevention of water quality degradation through implementation of Best Management Practices and educational programs to reduce pollution entering surface waters;

b. Reduction of volumes and duration of urban flows to prevent flooding and erosion;

c. Cost sharing;

d. Consistency with the City's risk management practices; and

e. Maintenance and restoration of stream habitat for habitat preservation and enhancement.

f. Coordinated, knowledge based management decisions.

Protecting Natural Drainage Systems

Pol. ST 1.6 Development shall be designed and constructed to minimize disruption and/or degradation of natural drainage systems and the habitat they provide, both during and after construction. Development design which minimizes impervious surfaces by limiting site coverage and maximizing the exposure of natural surfaces for the infiltration of water should be encouraged.

Pol. ST 1.7 Stormwater should be detained and infiltrated on-site where possible. If on-site detention and infiltration is not possible, stormwater should be detained so that the release rate shall be as close to predevelopment or natural conditions, as possible. Any release must be to an approved drainage system, either natural or constructed, as approved by the City.

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Pol. ST 1.8 As part of its review process, the City shall consider the impacts of stormwater runoff from new development on the City's natural drainage systems, and require any appropriate mitigating measures. The City should also consider requiring retrofitting existing development with stormwater management facilities when redevelopment occurs and the amount of impervious surfaces increases. Criteria for implementing this policy should also be developed using a threshold approach patterned after SEPA requirements.

Pol. ST 1.9 The City shall require development to provide off-site improvements necessary to avoid adverse downstream impacts.

Protecting Water Quality

Pol. ST 1.10 In the interest of the residents of Burien, the Puget Sound area and adjoining communities, the City will protect the quality of surface water bodies located in the City.

Pol. ST 1.11 The City will encourage all City residents and businesses to implement Best Management Practices to prevent erosion and sedimentation from occurring, and to prevent pollutants from entering ground or surface waters.

Pol. ST 1.12 The City shall establish enforcement mechanisms that may be used to prevent or stop contamination to surface water quality, as well as to implement all City stormwater policies. Enforcement mechanisms should address surface water contamination, including surface water flows. Through intergovernmental coordination, the city will seek similar enforcement mechanisms for all waters through or into the City from up to five miles from its corporate limit.

Discussion: The City currently does not have an adopted water quality ordinance.

Pol. ST 1.13 The City shall incorporate facilities to improve the water quality of surface water runoff from existing and new roadway improvements.

Providing Groundwater Recharge

Pol. ST 1.14 Where infiltration will not adversely effect down gradient properties, infiltration of stormwater is preferred over surface discharge to a natural stream system. The return of precipitation to the soil at natural rates near where it falls should be encouraged through the use of infiltration

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mechanisms, including but not limited to well designed open drainage systems, infiltration ponds, detention ponds and grass lined swales.

Goal ST.2

Ensure that standards used for the design and development of stormwater drainage systems reflect and support the character of adjacent development and the stormwater, land use, and environmental protection goals of the City.

Pol. ST 2.1 Appropriate stormwater management practices should be employed to prevent stormwater problems from urban runoff, which may include flooding, erosion, or stream channel scouring in natural drainage systems. These practices at a minimum should include the collection, control and treatment of storm water runoff at a rate and quantity that will prevent damage to both man-made and natural drainage systems. One or a combination of the following two approaches can be used to managed excessive storm water runoff:

a. Collect, control, and treat stormwater runoff to a level that will prevent damage to the natural drainage system and restore the ability of the natural drainage system to function as a productive biosystem; and/or

b. Remove excessive stormwater runoff from the natural drainage system by artificial means such as bypass systems in accordance with SEPA or other adopted plans, regulations or regional programs.

Pol. ST 2.2 The following guidelines shall be used to develop stormwater quantity and quality standards within the City:

a. *Multifamily and Moderate Density Single Family Neighborhoods:* The City shall require new development, as well as redevelopment projects involving external construction that may have drainage implications, to comply with full urban stormwater drainage standards that include culverts, pipes, gutters, and detention, retention and water quality treatment facilities. The standards should also address maximum impervious lot coverage.

b. *Commercial and Industrial Areas:* The City shall require new development, as well as redevelopment projects involving external construction that may have drainage implications, to comply with full urban stormwater drainage standards, as described above.

c. *Low Density Single Family Neighborhoods:* The City shall allow "modified urban standards" that are appropriately designed to match

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the character of adjacent land uses, such as allowing well designed, open drainage systems rather than gutters and pipes. (Facilities on arterials in these areas may require full urban stormwater drainage standards.)

d. *Low and Moderate Density Single Family Neighborhoods located in landslide hazard areas, on steep slopes, or in erosion hazard areas (as defined in the City's Environmentally Sensitive Areas Ordinance), or in areas with existing or potential drainage problems:* The City shall require new development, as well as redevelopment projects involving external construction that may have adverse impacts on the stormwater drainage system, to comply with stormwater drainage standards that include on-site drainage controls. (Facilities on arterials in these areas may require full urban stormwater drainage standards.)

Pol. ST 2.3. The City should develop and adopt regulations to supplement the adopted King County Surface Water Design Manual to ensure that any clearing, grading or the addition of impervious area in steep slopes or landslide hazard areas (or projects that drain or discharge into such areas) be reviewed for drainage implications and regulated accordingly.

Pol. ST 2.4 Design and construction standards for development should address rate of discharge, water quality, method and point of discharge, and method of storm drainage control.

Pol. ST 2.5 Design and construction standards for development should require the use of temporary erosion and sedimentation control measures that minimize the transport of sediment to drainage facilities, water resources, and adjacent properties.

Pol. ST 2.6 Stormwater conveyance systems for proposed projects must be analyzed, designed and constructed to accommodate stormwater runoff originating off-site that are conveyed onto the project site, as well as runoff from the project itself, and ensure that stormwater discharge from the site occurs at the natural location.

Pol. ST 2.7 The City shall enact ordinances and review development and redevelopment proposals in a manner which controls the duration and discharge of storm water from new development. At a minimum, peak discharge shall not exceed the rate of the predevelopment or natural condition.

Pol. ST 2.8 Maintenance of all drainage facilities constructed or modified by a proposed project becomes the responsibility of the property owner. The

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City of Burien may assume maintenance of all approved drainage facilities constructed for formal plat subdivisions, planned unit developments, and short plat subdivisions two years after construction approval and upon assurance that they are in working order.

Goal ST.3

Minimize the risk to property and residents from flooding hazards.

Pol. ST 3.1 Flood prone properties outside of the floodway are developable provided that such development can meet the standards set forth in the federal flood insurance program.

Discussion: The general location of areas within the 100-year floodplain is depicted on the City's environmentally sensitive areas map.

Pol. ST 3.2 Site plan review shall be required under SEPA for all development in the flood plain, including single family development, short plats and redevelopment. Appropriate mitigating measures shall be required whenever needed to reduce potential hazards.

Pol. ST 3.3 Any development within the floodway, which would reduce the capacity of the floodway or create risks to property, shall be prohibited.

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SUMMARY OF OPPORTUNITIES AND CONSTRAINTS

The planning alternatives were devised to reflect and respond to the opportunities and constraints that confront the future development of the city. These basis of opportunities and constraints are described in detail in Section II of this plan.

Constraints include environmentally sensitive areas, such as areas susceptible to landslides, or areas deficient in the types of services necessary for more urban levels of development, such as sewer or water. It should be noted that while constraints are traditionally viewed as limiting or restricting development, they could also be turned around and viewed as opportunities for preserving the existing character of an area, whether it be as open space or low density development.

Opportunities take on many different faces within the City. For example, opportunities can be found to preserve and enhance existing parks and open space, to enhance the character of our built environment, such as in the downtown core, or to reconfigure the transportation network to improve the flow of traffic.

Map 1 depicts the location of significant constraints and Map 2 the opportunities within the City of Burien. (Please note that these maps summarize constraints and opportunities within the City, and consequently are to be used only for illustration purposes.)

Environmentally Sensitive Areas

Within Burien, environmentally sensitive areas that can be seen as potential limitations to development include areas where the underlying geology, soils and topography create hazardous conditions for development, and areas where the City's and region's water resources are susceptible to degradation from development

Landslide Hazard Areas

It is generally regarded that special care must be taken when building on steep slopes. The Soil Conservation Service of the U.S. Department of Agriculture reports that most soils on 15 to 40 percent slopes can be potential erosion and landslide hazards. Consequently, slopes greater than 40 percent are rarely built on. Many sources advise against any development on slopes of more than 25 percent, unless it is highly regulated and engineered. The proposed plan maintains the current regulatory system that strictly controls new development on slopes in excess of 40% or on known landslide hazard areas less than 40%.

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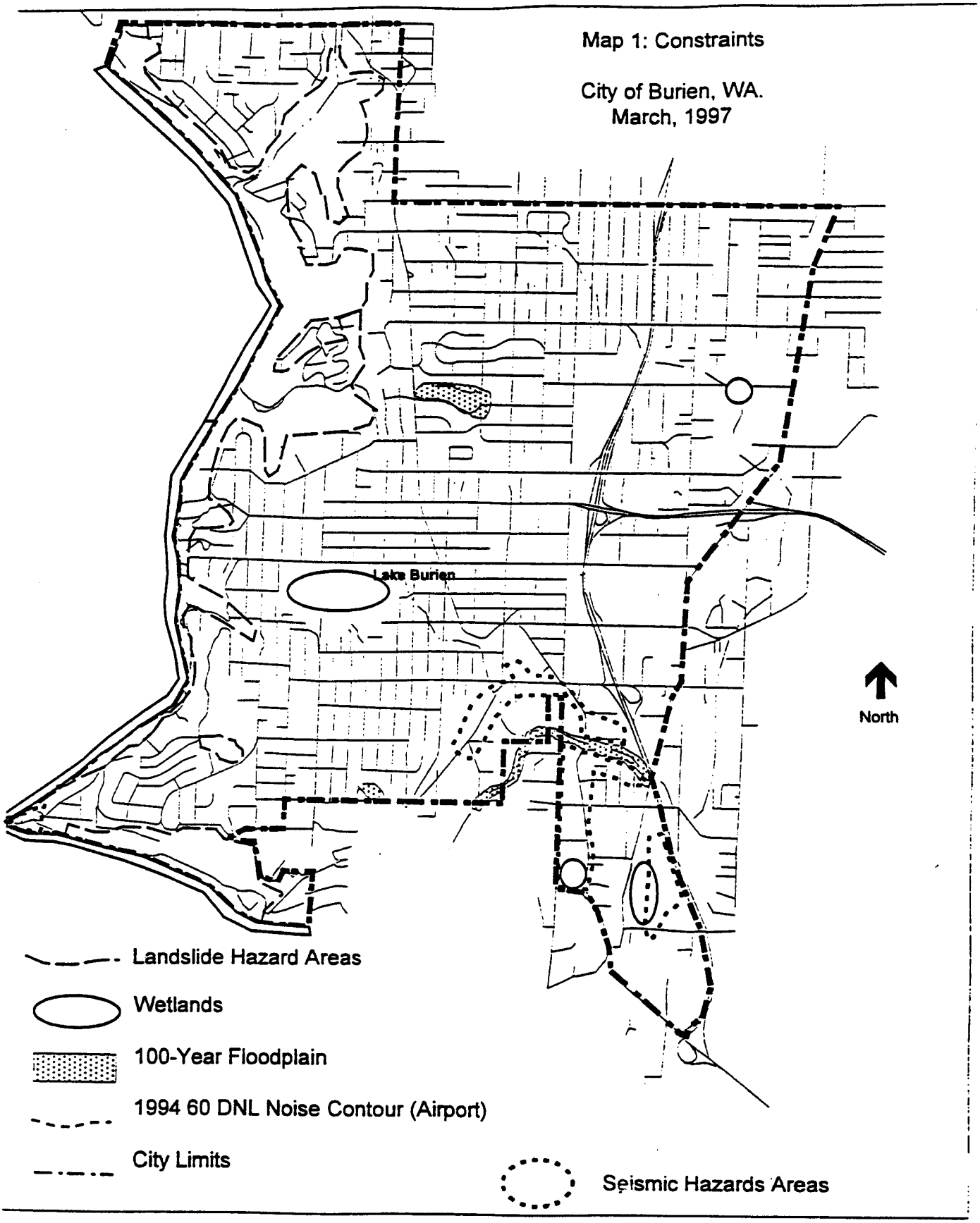
Map 1: Constraints
City of Burien, WA.
March, 1997
Lake Burien
North
Landslide Hazard Areas
Wetlands
100-Year Floodplain
1994 60 DNL Noise Contour (Airport)
City Limits
Seismic Hazards Areas

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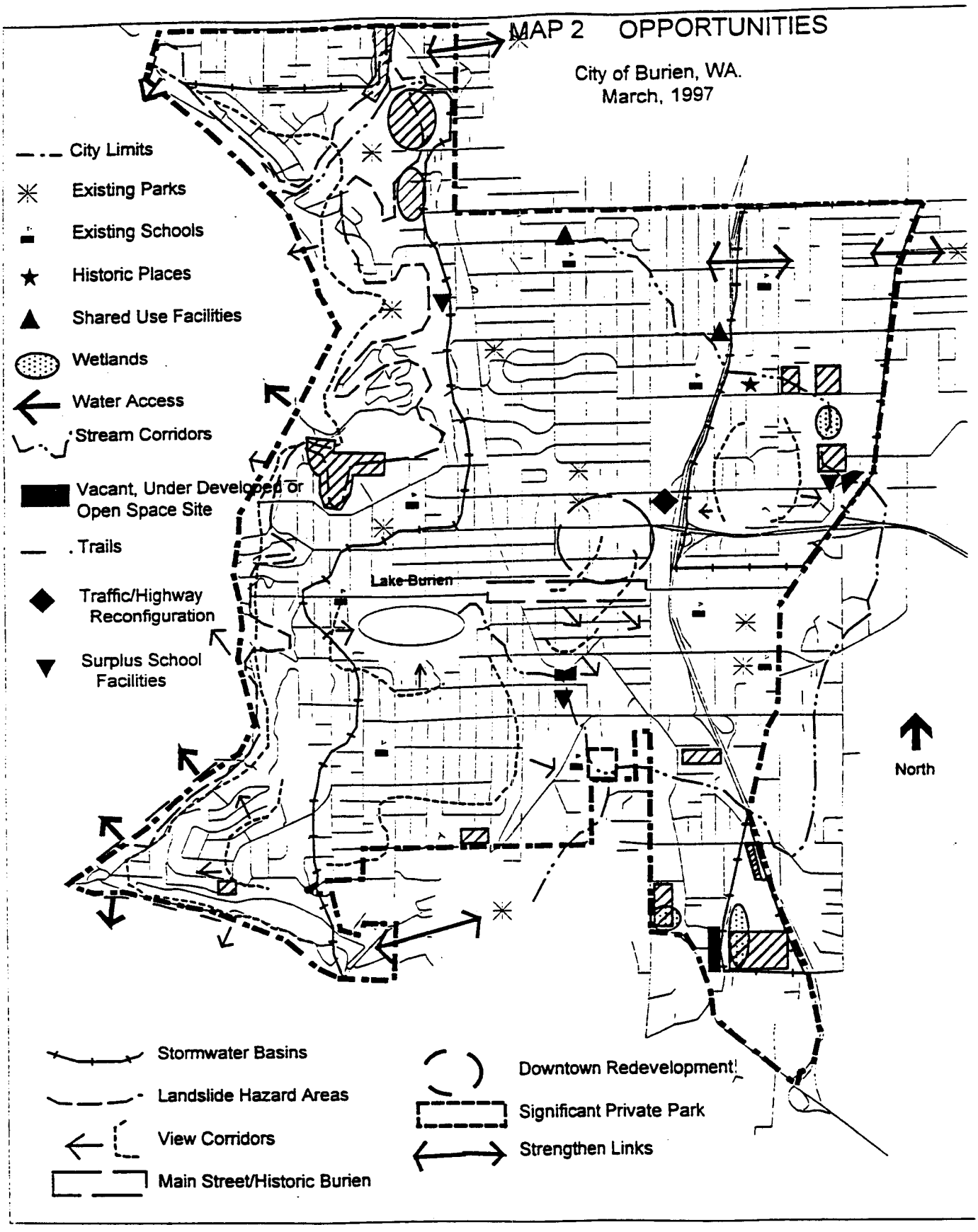
MAP 2 OPPORTUNITIES
City of Burien, WA.
March, 1997
City Limits
Existing Parks
Existing Schools
Historic Places
Shared Use Facilities
Wetlands
Water Access
Stream Corridors
Vacant, Under Developed or Open Space Site
Trails
Traffic/Highway Reconfiguration
Surplus School Facilities
Lake Burien
North
Stormwater Basins
Landslide Hazard Areas
View Corridors
Main Street/Historic Burien
Downtown Redevelopment
Significant Private Park
Strengthen Links

Within the City, landslide hazard areas are defined as having slopes steeper than 15 percent which are underlain by impermeable soils, such as silt and clay, and mixed with relatively permeable soils consisting largely of sand and gravel. These problems are exacerbated by the presence of springs or ground water seepage. These areas are generally stable under natural slope conditions but are subject to stability problems resulting from land use activities. The apparent stability of these slopes can be deceptive: their potential instability might be obscured and the necessity for special regulation of land developments might not be apparent.

Soil erosion can be a significant problem in areas undergoing development. The removal of protective vegetative coverings from unstable soils during construction can expose soil particles to uncontrolled surface water runoff, wind, or gravitational forces. As runoff gains velocity, it detaches and carries away particles, and cuts rills and gullies into the soil. The impacts are usually seen in adjacent and downstream areas where the eroded soil reduces water quality and causes sedimentation in wetlands, streams, storm drainage facilities, and developed properties. Because of this, it is critical to require effective erosion control measures during clearing and development phases on sites that have been identified as prone to significant erosion and landslides. Special precautions, development standards, and best management practices should be instituted before development occurs in landslide hazard areas. In addition, development on openly steep slopes/unstable areas can be detrimental to human health, the sustainability of the environment, and property values.

The majority of the landslide hazard areas are located along the Puget Sound coastline, where soil types, steep slopes and ravines, spring fed creeks, and upland streams combine to create unstable lands. These areas include parts of Shorewood, Seahurst, Seahurst Park, Salmon Creek Ravine, and the Three Tree Point area. The slopes along these bluffs are steep to very steep, often exceeding 40 percent.

In contrast to these constraints, the majority of the City is characterized by gently rolling terrain, with elevations between 300 and 400 feet mean sea level (msl). The highest elevations are found in the northeastern part of the City. The upland areas drop abruptly from 300 feet msl to sea level along the Puget Sound shoreline bordering the City on the west.

Wetlands

Wetlands are transitional areas between upland and aquatic environments where water is present long enough to form distinct soils and where specialized "water loving" plants can grow. Wetlands include marshy areas along shorelines, inland swamps, and seasonal watercourses. Wetlands are typified by a water table that usually is at or near the surface, and there may be standing water all or part of the year. Wetlands provide erosion and sediment control -- the extensive root systems of wetland vegetation stabilize stream banks and shorelines. Wetlands also improve water quality by decreasing the velocity of water flow, resulting in the physical interception and filtering of waterborne sediments, excess nutrients, heavy metals, and other pollutants. Wetlands help in flood control, for when floodwaters overflow the banks of streams and rivers the porous soils and wetland plants soak up tremendous amounts of water which then

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seeps slowly back into streams. Wetlands also provide food and shelter, essential breeding, spawning, nesting and wintering habitats for fish and wildlife, including migratory birds, anadromous fish, and other commercial and recreational valuable species.

The City of Burien wetland resources includes two Class 2 wetlands[3] in the southeastern area of the City, totaling approximately 26 acres. In addition, just north of the Highline School District Mental Health facilities, Miller Creek flows into an open body of water less than an acre in size and classified as a Class 2 wetland. Other significant wetland areas are found along Miller Creek. One particularly noteworthy area is located in the Miller Creek Ravine in the vicinity of 1st Avenue South and Ambaum. Puget Sound Beaches, along with adjacent creek mouths are considered particularly important wetland resources. The King County wetland inventory system also designates Lake Burien as a wetland

There may also be a number of other wetlands of smaller size located within the city. The City of Burien has adopted standards and requirements which allow only very limited development and activities in and adjacent to wetlands, while striving to preserve their integrity.

Stormwater Drainage Basins

The City of Burien is divided into seven drainage basins -- Seola Creek, Puget Sound (two basins), Salmon Creek, Hermes Depression, SW 142nd St: Depression, and Miller Creek. Most of the significant constraints to development are located in the Puget Sound drainage basins.

The Salmon Creek drainage basin originates in the City of Seattle, flows through the White Center area, and terminates in Puget Sound in the northwest corner of the City. Flows from this basin are attenuated somewhat by a series of degraded wetlands and small lakes, including Garret Lake, all of which are outside the City of Burien. At Ambaum Boulevard an old World War II pipeline diverts part of the flow entering the City directly to Puget Sound. This pipeline is undersized but does help to lessen the erosion and sliding that occurs in the steep portions of this basin due to uncontrolled runoff.

The Miller Creek drainage basin originates in numerous bogs, lakes, and depressions in the plateau area that makes up the bulk of the Burien-SeaTac land area. Miller Creek is formed through a system of seven tributaries. Miller Creek receives drainage from the Burien commercial area, State Highway 509, Sea-Tac Airport and an extensive area in King County. The main stem of Miller Creek is only partially in the City of Burien. Erosion, slides and loss of habitat are the principal problems associated with Miller Creek, and primarily occur south of Burien in the City of Normandy Park. Within Burien, there are a number of drainage problems associated with depression areas caused by the last glacial period, and by undersized pipelines and incomplete drainage systems.

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[3] The City of Burien Zoning Code (18.59.945 Wetlands) defines Class 2 wetlands as "including wetlands assigned the Significant #2 rating in the 1983 King County Wetlands Inventory or which meet any of the following criteria: a) are wetlands greater than one acre in size; b) are wetlands equal to or less than one acre in size and have three or more wetlands classes; c) are forested wetlands equal to or less than one acre but larger than 2,500 square feet; or d) are wetlands which have present heron rookeries or raptor nesting trees."

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The Puget Sound drainage basins include a series of small basins composed of steep hillsides sloping down from the Burien Plateau area to the Puget Sound. Each basin collects ground water outcroppings and urban runoff, and forms streams of varying sizes, some quite large as in Seahurst Park, an others intermittent spring-fed creeks. Increases in development and impervious surfaces within these basins, combined with the effects of uncontrolled runoff from development, has caused a number of serious erosion and slide problems in each of these basins.

Other areas contributing to stormwater drainage problems in the City are the major shopping areas downtown and along 1st Avenue South. Most of the central commercial area of Burien was developed before the advent of King County stormwater control ordinances.

Flood Plains

A very small portion of the City is within designated 100-year floodplains. One is located just north of SW 142nd St. between Ambaum Blvd. and 6th Ave. SW. This area forms a natural drainage basin for the 142nd Street Depression Sub-basin, and experiences severe flooding during the winter months. The other 100-year floodplain is located in the southern part of the City, along the Miller Creek Corridor. Much of the corridor the Creek passes through in this area has not been developed, and includes a low-density residential neighborhood, the Kiwanis Park/Camp Schoenwald, and some ravine areas.

Aquifer Recharge Areas

The Highline Well Field serves as a smaller source of supply for the Seattle Water Department (SWD). The eastern half of the City is located in the aquifer's recharge area. In the unsewered portions of the northeastern part of the City, poor soils and a history of failing septic tanks create a high potential for groundwater contamination of this aquifer.

The aquifer recharge area needs to be protected in the design of the future land use alternatives. This could be accomplished through regulatory measures, such as downzoning the affected areas to keep the level of development low (which would stem the proliferation of septic tanks but not prevent the failure of existing ones) or by installing a sewer system.

Capital Facilities

Capital facility constraints include sewer, water, and transportation system deficiencies.

Sewer

While there is enough capacity within the sewer system to meet the future needs of the community, there are several unsewered areas within the City that pose constraints to development (see Existing Conditions Map 21). These areas include Three Tree Point, Seahurst, parts of Shorewood, and the northeastern and southeastern parts of the City. Without sewer

AR 036030

systems in place, limited development can occur in these areas. If a sewer system is not implemented in these areas, downzoning becomes a possible response or alternative.

Water

There are six separate water purveyors for the City, including the Seattle Water Department (SWD). The most common current deficiency identified by the water districts involves replacing undersized distribution lines to improve fire flow. This is particularly true in portions of Districts 85, 20, and 49, and the Highline Water District in the Three Tree Point and 490 pressure zones. Until these improvements are actually implemented, development in these areas will be limited. The Highline Water District has identified a potential water supply shortage in the future that needs to be addressed. In some cases, the need for pipe replacements and other improvements in these areas has been identified and planned for in the near future. In other cases, such as in District No. 85 and the Seattle Water Service Area, no definitive plans are known.

Traffic

The amount of automobile traffic traveling between residential areas in the far western parts of the City along the Puget Sound coast is already perceived as an issue. Capacity deficiencies on existing roads, combined with a lack of east-west routes create congestion on the available routes and high volumes of traffic traveling through the adjacent residential neighborhoods. Streets in residential areas are generally constructed to a low rural level of service standard. Many of these streets, especially in the western part of the city are not appropriate to support urban levels of development. Most residential areas do not have sidewalks. These concerns would be intensified with additional residential development along the coastline.

Other major constraints include inadequate sight clearances are present on many of the city arterials creating potential safety and capacity concerns if higher intensity development occurs at these sites, and congestion at some of the city's major intersections especially at the interchange of SR509 and SR518.

OPPORTUNITIES

Map 2 presents an graphic display of all of the opportunities that will be summarized below. In addition there are several opportunities to promote the redevelopment of downtown.

Parks, Recreation and Open Space

The following opportunities exist related to parks, and recreation:

- Preserving and enhancing existing parks, open space and recreation facilities. Many of the existing facilities are in need of maintenance and improvements.

AR 036031

- Sharing the use of facilities, such as stormwater drainage ponds and properties. Passive parks and walking trails could be added to these sites at minimal cost, while still maintaining the basic function of these facilities.

- There is an opportunity to create a network of designated walking routes to connect parks, open spaces, and recreation areas with other activity areas in the City, including neighborhoods, schools, shopping areas, the transit center, and the downtown core. These routes could be differentiated from other sidewalks or routes by a variety of methods, including planting trees to form a greenway on certain streets or using a different paving for sidewalks. Existing trails within the City, such as the Indian Trail, could also be incorporated into the network.

- Surplus school facilities could be purchased for use by the City. Currently top on the list for surplus within the City of Burien are the Highline Senior Center, Lakeview School (existing school district museum and field), and Sunny Terrace School (no longer in operation).

- There are a number of large, vacant parcels of land located throughout the City. These parcels could be considered for a variety of activities.

View corridors

The hilltops in Burien provide views of Mount Rainier, the Olympic and Cascade Mountains, and the Puget Sound. There are opportunities for preserving these public views and/or building developments which capitalize upon the view. In addition the sensitive areas along the coast offer outstanding waterfront and Puget Sound view values.

Environmentally sensitive lands

Environmentally sensitive areas, as discussed earlier, include wetlands, steep slopes, and aquifer recharge areas. While seen as constraints to development, these lands can also be considered as opportunities for preservation. Many environmentally sensitive areas, in their natural state, also perform functions which are impossible or difficult and costly to replace. All of the wetlands described under the constraints section also represent an opportunity for open space preservation or passive parkland development. Each of these areas could stand-alone, or be linked to a network of City parks, open spaces and recreation areas through paths, trails, or greenway corridors.

Creeks

Salmon Creek and Miller Creek are the two major surface water drainage systems within the City. Miller Creek is the larger of the two, draining a total area of approximately 5,230 acres compared to Salmon Creek's 1,390 acre drainage basin. Both stream systems include numerous small tributaries, such as Walker Creek, with lakes and wetlands found in upland depressions. Drainage is predominantly to the west toward Puget Sound, although both Creeks flow in a

generally southwest direction. Salmon Creek and Miller Creek are classified by King County as Class 2, salmonid bearing streams.

The characteristics of the stream channels and stream flows in the Miller Creek and Salmon Creek systems are typical of urbanized streams. Both streams have been extensively modified by channelization, culverting, fill and other man-made changes. Miller Creek experiences a moderate level of pollution as a result of urbanization.

Miller Creek flows through three jurisdictions -- the cities of Burien, SeaTac and Normandy Park. In the northern part of Burien, the stream corridor runs through single family neighborhoods. Moving eastward, the stream corridor runs through relatively low density single family development, and in some areas is well-vegetated. The creek's future in SeaTac is currently unknown. Construction of the third runway at SeaTac Airport may cause the stream channel to be relocated. In addition, the City is currently considering different land use alternatives for that area, and may change the future land uses from low density single family development to higher intensity uses such as business parks and multifamily residences, both of which would have an impact on stream conditions and habitat. The City of Normandy Park's comprehensive plan calls for preserving the Miller Creek corridor and creating a network of trails along the stream and connected to the Walker Preserve.

Opportunities exist to preserve the existing vegetated stream corridor by creating a linear trail along the Miller Creek corridor through easements, development standards, or purchase of adjacent vacant land. This corridor could also link any open space, park, historic area or recreation area in close proximity. Opportunities for connecting to corridor trails in Normandy Park, and potentially SeaTac, could also be explored.

As it enters the City from the north, Salmon Creek runs continues through a short stretch of residential areas, soon entering a series of ravines, open spaces and Seahurst Park before joining Puget Sound. A similar strategy of corridor preservation could be implemented along Salmon Creek. Such a strategy would actually enhance the habitat qualities of both of the stream corridors while still offering opportunities for passive enjoyment of the creeks.

Lake Burien

Lake Burien is a 42 acre lake which served as a focal point for activities in the early history of Burien. Currently, the lake is surrounded primarily by single family homes, although the City owns some right-of-way adjacent to the lake on the southeast corner which could be used to allow public access to the lake. However, the site is too small to allow for parking or other facilities. Consequently, the site could be developed as a pedestrian accessible "pocket park" to provide a public viewing spot of Lake Burien.

Historic Places

A survey of potentially valuable historic places was prepared for the City and surrounding communities. These places include but are not limited to the Dodd Homestead (1888) and the

AR 036033

ravines, spring fed creeks, and upland streams combine to create unstable lands. In these areas, steep and very steep slopes (often in excess of 40 percent) and surface or near-surface exposures of relatively impermeable clay and silt deposits contribute to Class III Landslide Hazard Areas. Class III Landslide Hazard Areas are the greatest landslide hazard potential recognized by King County (King County, 1990; ST Engineering, 1985). Landslide Hazard Areas are found in parts of Shorewood, Seahurst, Seahurst Park, Salmon Creek Ravine, and the Three Tree Point area.

Special precautions, development standards, and best management practices should be instituted prior to development in erosion and landslide hazard areas. Uncontrolled storm water runoff and seepage from springs also works to disturb soils, contribute to erosion and aggravate landslide problems experienced on steep slopes. Storm water runoff traveling at high velocities through a stream channel also has the potential to destroy wildlife habitat by scouring the streambed and denuding vegetation. Consequently, special attention should be paid to the management of any development occurring on steep slopes. In addition, while slopes have the best potential for view property, development on openly steep slopes/unstable areas can be detrimental to human health, the sustainability of the environment, and property values.

Seismic Potential

Damage from earthquakes is caused primarily by ground shaking. The severity of the ground shaking depends on the distance from the earthquake epicenter, the magnitude and duration of the earthquake, the nature and thickness of surface and subsurface geologic materials, and subsurface structures. Surface faulting and sudden ground elevation changes (subsidence and uplift) can also result in damage. Earthquakes may also trigger landsliding, soil compaction, liquefaction of water-saturated deposits, and inundation from seismically induced water waves (tsunamis and seiches).

Valley soils along the lower reaches of both Salmon and Miller Creeks present potential seismic hazards. No geologic hazards are identified in the upland areas. Also, areas identified as potential landslide hazard areas are considered to be at increased risk during earthquakes.

Water Resources

Water resources include aquifer recharge areas and ground water, surface water resources and wetlands.

Aquifer Recharge Areas and Ground Water

Precipitation released from the snow pack, lakes, streams, rivers, oceans, or wetlands, seeps into the soil where it is taken up by plant roots, or infiltrates into the ground where it becomes ground water. As the ground water travels through the ground, it may discharge to surface features such as lakes, streams, or rivers. The water that remains in the ground may be contained in an aquifer.

Wells can be used to tap into aquifers to provide a source of water for many jurisdictions, including Burien.

AR 036034

The Highline Well Field (a series of aquifers) is one of three sources of water supply for the Seattle Water Department (SWD). SWD is the largest purveyor of water in the state with almost 40% of the Department's available water purchased by water purveyors, including those serving Burien. The Highline Well Field lies in the area north of SeaTac International Airport. The Highline Well Field recharge area spans an area that includes the northeastern portion of Burien.

There are three principal aquifers beneath the Highline area which are located in permeable sand and gravel substrata. Each of these aquifers is separated by layers of relatively impermeable materials. The shallowest aquifer is recharged by infiltration from precipitation in upland areas (particularly in areas such as Miller Creek and Salmon Creek), and from ponded water beneath upland lakes. Most surface water features, including lakes, streams and springs, interact with the shallow aquifer as either areas of discharge or recharge. The bluffs along the Puget Sound shoreline are the principal locations of groundwater discharge through springs and seeps.

Aquifer recharge occurs primarily as a result of the infiltration of rainfall, and secondly by the movement of water from adjacent aquifers or water bodies. The rate and quantity of water entering the ground depends on several factors. Natural factors include amount of precipitation, soil type and conditions, vegetation, and topography. Man-made factors include impervious surfaces associated with development, the channeling of runoff, changes in soil condition such as compaction, and removal of vegetation. Aquifers can also be effected by contamination. A hazardous waste spill can have severe adverse impacts on an aquifer, possibly making the water unusable for years.

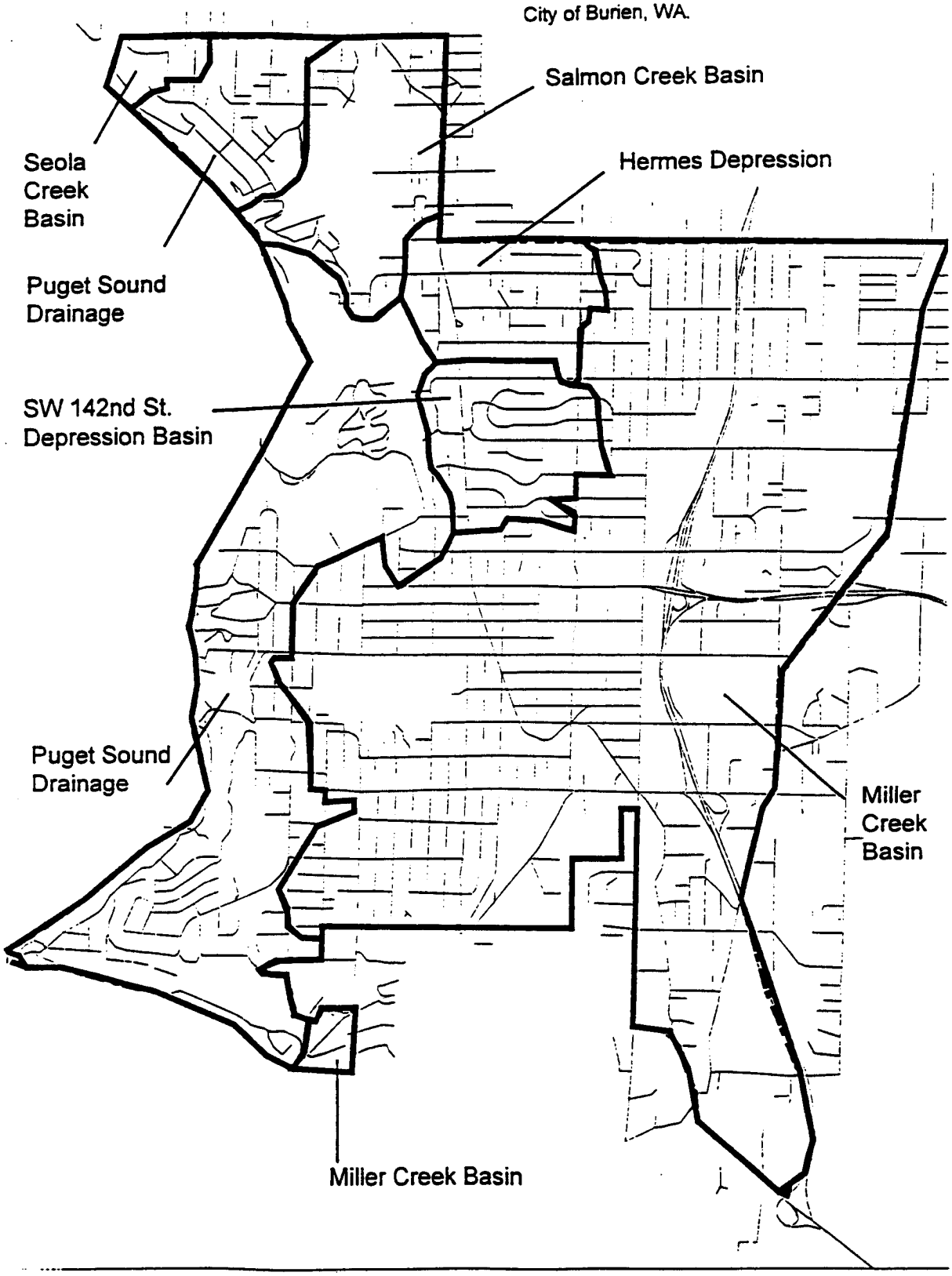
Surface Water Resources

As can be seen on Map 9, the City of Burien is divided into seven drainage basins - Seola Creek, Puget Sound (two basins), Salmon Creek, Hermes Depression, SW 142nd St. Depression, and Miller Creek. Miller Creek is the largest of the basins, draining an area of approximately 5,230 acres. Salmon Creek is the second largest system, draining 1,390 acres. Drainage is predominantly to the west towards Puget Sound, although both of the major streams flow in a general southwesterly direction. Salmon Creek originates in the City of Seattle, flows through the White Center area, and terminates in Puget Sound in the northwest corner of the City. Flows from this basin are somewhat attenuated by a series of degraded wetlands and small lakes, including Garret Lake, all of which are outside the City of Burien.

AR 036035

Map 9 Drainage Basins

City of Burien, WA.



AR 036036

Miller Creek originates in numerous bogs, lakes, and depressions in the plateau that makes up the bulk of the Burien-SeaTac land area. Miller Creek is formed through a system of seven tributaries. Miller Creek receives drainage from the Burien commercial area, State Highway 509, Sea-Tac Airport and an extensive area in King County. The main stem of Miller Creek is only partially in the City of Burien.

The characteristics of the stream channels and stream flows in Miller and Salmon Creeks are typical of urbanized streams. Channelization, culverting, fill and other man-made changes have extensively modified both streams During storms, the peak volume of water conveyed by the creeks is both greater and occurs in less time than it would if the drainage basins had remained in a natural, or undeveloped state. This increased stream runoff increases the potential for streambed scouring and the amount of flooding and sedimentation that could occur in downstream areas. The Puget Sound drainage basins include a series of small basins composed of steep hillsides sloping down from the Burien Plateau area to the Puget Sound. Each basin collects ground water outcroppings and urban runoff, and forms streams of varying sizes, some quite large as in Seahurst Park, and others as intermittent spring-fed creeks. Increases in development and impervious surfaces within these basins, combined with the effects of uncontrolled runoff from development, have caused a number of serious erosion and slide problems in each of these basins.

There is one lake located within the City of Burien - Lake Burien. At one time the lake served as the drainage basin for a small area. Some time ago, a system of stormwater drainage pipes were installed on the northern side to divert runoff from the lake. However, there remains several drainage points to the lake on the south side. Underground culverts drain the lake to the southeast. Private residences border the lake, and there is no public access to this body of water.

There are a number of lakes just outside of the Burien City limits. Within the City of SeaTac there are four lakes in close proximity to Burien. Just south of SR 518 are Lora Lake and Lake Reba. Tur Lake is located just east of SR 509 and north of SR 518. Arbor Lake is located in King County, just north of SW 128th Street and west of SR 509.

Wetlands

Wetlands are transitional areas between upland and aquatic environments where water is present long enough to form distinct soils and where specialized "water loving" plants can grow. Wetlands include marshy areas along shorelines, inland swamps, and seasonal watercourses. Wetlands are typified by a water table that usually is at or near the surface, and there may be standing water all or part of the year. Soils that are present in wetlands are known as "hydric soils." Certain plant species, including trees, shrubs, grasses, and grass-like plants have adapted to the low oxygen content of wetland soils. These plants are known as "hydrophytes."

Another distinguishing characteristic of wetlands, in addition to soils and plants, is hydrology. Wetlands hydrology refers to the wetness of the wetlands: how often and how long the soil is saturated or flooded with water. Indicators of wetland hydrology may include drainage patterns, sediment deposition, watermarks, stream gauge data, flood predictions, historic data, visual observation of saturated soils, or flooded soils.

AR 036037

The City of Burien wetland resources includes two Class 2 wetlands[4] in the southeastern area of the City, totaling approximately 26 acres. In addition, just north of the Highline School District Mental Health facilities, Miller Creek flows into an open body of water less than an acre in size which is classified as a Class 2 wetland. Other significant wetland areas are found along Miller Creek, one particularly noteworthy area is located in the Miller Creek Ravine in the vicinity of 1st Avenue South and Ambaum. Puget Sound Beaches, along with adjacent creek mouths are considered particularly important wetland resources. The King County wetland inventory system also designates Lake Burien as a wetland

There may also be a number of other wetlands of smaller size located within the city. The City of Burien has adopted standards and requirements which allow only very limited development and activities in and adjacent to wetlands, while striving to preserve their integrity.

Floodplains

The 100-year floodplain is comprised of two components: the floodway and the flood fringe. The floodway is the area of fastest moving water where damage and safety threats are the greatest. Absence of permanent structures in the floodway, such as houses and businesses, allow floodwater to move unimpeded and reduces the possibility for property damage. Only seasonal uses or water dependent facilities, such as passive-recreation types of parks, stream bank stabilization facilities or storm water facilities, should be allowed in these areas. The flood fringe is that portion of the floodway covered by floodwaters during a base flood. It is generally associated with standing water rather than rapidly flowing water.

According to the Federal Emergency Management Agency (FEMA) maps, a very small portion of the city is within designated 100-year floodplains. One of the floodplains is located in the southern part of the city along the Miller Creek Corridor. In this area, parts of the corridor have not been developed. Uses along the corridor include a low-density residential neighborhood, the Kiwanis Park/Camp Schoenwald, and some ravine areas. It should be noted that although only a few areas are designated as 100-year floodplains, there are still many other areas with drainage problems (as noted under the section on water resources).

The other 100-year floodplain is located just north of SW 142nd St. between Ambaum Blvd. and 6th Avenue SW. This area forms a natural drainage basin for the 142nd Street Depression Sub-basin. Although it is not a floodplain, the Hermes Depression is another natural drainage basin located just north of the 142 Street Depression. Neither the 142nd Street Depression nor the Hermes Depression has a natural outflow for water that collects in these basins. Consequently, during the winter months, heavy rains cause these areas to experience severe flooding.

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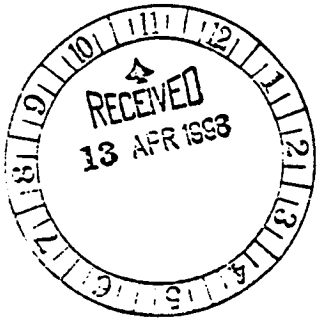
[4] The City of Burien Zoning Code (18.59.945 Wetlands) defines Class 2 wetlands as "including wetlands assigned the Significant #2 rating in the 1983 King County Wetlands Inventory or which meet any of the following criteria: a) are wetlands greater than one acre in size; b) are wetlands equal to or less than one acre in size and have three or more wetlands classes; c) are forested wetlands equal to or less than one acre but larger than 2,500 square feet; or d) are wetlands which have present heron rookeries or raptor nesting trees."

OFFICE OF THE MAYOR
Charles A. Booth, Mayor

CITY ADMINISTRATION
25 West Main, Auburn, WA 98001
(253) 931-3041 Fax: (253) 288-3132



March 31, 1998

Mr. Jonathan Friedman
U.S. Army Corps of Engineers
Attn: Regulatory Division
PO Box 3755
4755 E. Marginal Way S.
Seattle, WA 98124-3755

Dear Mr. Friedman:

I am writing to express support for the 404 permit application of the Port of Seattle for an off-site wetland mitigation project in the City of Auburn.

The City and Port have entered into an agreement concerning this project, and the City continues to work with the Port in anticipation of issuing the necessary permits when it is appropriate to do so. The City looks forward to working with the Port to ensure a project that is satisfactory to both parties.

Thank you for considering our views.

Respectfully submitted,

Charles A. Booth/dr
Charles A. Booth
Mayor

d:\mayor\letter\98-jf401

City of Des Moines

ADMINISTRATION
21630 11TH AVENUE SOUTH
DES MOINES, WASHINGTON 98198-6398
(206) 878-4595 FAX: (206) 870-6540

2L-3

April 8, 1998

Mr. Jonathan Freedman, Project Manager
US Army Corps of Engineers
Regulatory Branch
P. O. Box 3755
Seattle, WA 98124-2255

Re: US Army Corps of Engineers Public Notice #96-4-02325; Port of Seattle

Dear Mr. Freedman:

1 The City of Des Moines would like to reiterate our strong opposition to the issuance of the above referenced permit. Current studies (Des Moines Creek Basin Plan - 1997) indicate that Des Moines Creek is in an extremely marginal state, particularly during the summer months. Low flows, reduced oxygen levels, and higher temperatures are at critical levels and in urgent need of remediation. The new multi-jurisdictional basin plan provides for this remediation and enhancement. Needless to say, the wetlands provide essential storage, recharge, and filtering functions for the creek. Any degradation at all of these wetlands would most likely destroy Des Moines Creek as a fish habitat. The destruction of Des Moines Creek is absolutely untenable and not acceptable. It would undermine over 30 years of local, state and federal efforts to rehabilitate this creek and its habitat. It would be directly counter to recent federal, state and King County initiatives to be proactive in enhancing salmon habitat.

2 FAA concerns over bird habitat created by providing replacement wetlands in the Des Moines Creek basin are not valid or controlling. Frankly, this is a cover issue behind which the FAA attempts to hide frequently in order to justify filling wetlands. When the cover is removed, the reality is that this is merely a policy *preference* of the FAA. This preference is contained in FAA Advisory circular No. 150/5200-33 and states that it is a recommendation and guideline. This policy preference does not override national, state and local laws and policies regarding preservation of wetlands and the mitigation of any wetland loss within that specific drainage basin. There are thousands of airports, new and old, around the country that coexist with nearby wetlands. Also please bear in mind that the wetlands in Des Moines and Miller Creeks have coexisted for decades with the airport and the preference of the FAA to remove them does *not* supersede national and state law and policy for wetland preservation.

3 Some of the wetland destruction is attributable to proposed strip mining to provide additional fill material. Numerous sources of off site fill material are available. The fact that off site sources may cost more should not over ride the necessity to preserve critical wetland habitat.

The enclosed letter from the EPA to the Army Corps of Engineers clearly outlines that it is possible for replacement wetlands to coexist with nearby airports. It takes some dedication and work by the FAA and the airport to properly design replacement wetlands and manage bird habitat. But, it can be and has been done throughout the country and the world. In October, Vice President Gore announced the Administration's clean water initiative. The initiative goes beyond the former policy of "no net loss" of wetlands. The initiative's goal is a net increase of 100,000 acres of wetlands by 2005. This permit is completely contrary to that goal, to the Corps' regulations, EPA's guidelines, to the environmental health of the area.

5 We would urge in the strongest possible terms that it is absolutely critical to require the Port of Seattle and the FAA to develop replacement and management plans within the same drainage basins as Miller and Des Moines Creeks. This can be done safely if the agencies concerned genuinely want to make it work. The Army Corps should require the FAA and the Port of Seattle to work with local jurisdictions to find, establish and manage replacement wetlands in the affected drainage basins. Please understand that the destruction of these wetlands without appropriate replacement in their respective drainage basins, could well doom Miller and Des Moines Creeks as viable habitat. This habitat must be preserved.

On a personal note, last week I saw that two mature bald eagles had returned to Des Moines Creek. For the last three years bald eagles have nested along Des Moines Creek just a few blocks from city hall. They usually spend the spring and most of the summer there. Des Moines Creek is a viable fish and wildlife habitat and we must not destroy the wetlands that play such an essential role in maintaining this critical resource.

Sincerely yours,

Terry W Brazil

Des Moines City Council
Mayor Pro Tem, Terry Brazil

TB:ds

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

Reply to
ATTN of: ECO-083

FEB - 3 1998

OPTIONAL FORM 99 (7-90)
FAX TRANSMITTAL | # of pages ▶ 3

To	From
Pauly	Steve Roy
Dept./Agency	Phone #
	(206) 553-6221
Fax #	Fax #

NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

Colonel James M. Rigsby
District Engineer
Seattle District, Corps of Engineers
P.O. Box C-3755
Seattle, Washington 98124-2255

ATTN: Jonathan Freedman, Project Manager

RE: Public Notice 96-4-02325, Port of Seattle, December 19, 1997

Dear Colonel Rigsby:

We have completed our review of the above referenced public notice which proposes to fill 7.38 acres of wetlands for the construction of a third parallel runway at Seattle-Tacoma International Airport, including filling 5.46 aces of wetlands for the proposed third runway and 1.92 acres of wetlands fill at on-site borrow sites. Also proposed is filling 2.34 acre of wetlands to construct two new Runway Safety Areas. An additional proposed fill of 1.70 acres of wetlands to construct the South Aviation Support Area (SASA) facilities for airport support and maintenance facilities. Total wetland fill per the public notice is 11.42 acres as described in the table on sheet 6 of 29. Also on sheet 6 of 29 the foot note describes a total of approximately 12.23 acres of wetlands would be filled as a result of this project. Clarification is needed to account for the direct wetland impacts associated with this project.

The proposed work would also require filling and rechanneling approximately 980 feet of Miller Creek (0.25 of an acre), about 2,280 feet (0.15 of an acre) of drainage channels in the Miller Creek basin, and about 2,200 feet (0.5 of an acre) of Des Moines Creek.

As part of EPA's review, we read the proposed "mitigation plan" provided by the applicant and dated December 18, 1996. The direct acreage impacts to waters of the U.S. is different in this document than that included in the Public Notice.

After reviewing the above referenced public notice, the Environmental Protection Agency (EPA) has the following concerns and comments:

- The public notice and "mitigation plan" fails to identify appropriate compensatory mitigation for the wetland impacts. Essentially all of the on site

impacts are proposed to be mitigated off-site in the Green River Valley Watershed near Auburn, Washington. The proposed off-site mitigation cannot mitigate for those specific lost aquatic resources in the Des Moines Creek and Miller Creek Watersheds. EPA recognizes the need for achieving safe aircraft operations by minimizing bird strikes with aircraft, but it is EPA's position that public safety and environmental protection objectives can be mutually achieved. There are a number of wetlands within the Des Moines Creek and Miller Creek watersheds that could benefit from enhancement and restoration. We believe that incorporating mitigation in the impact basins will not create additional wildlife, but simply replace the lost habitat as a direct result of project implementation. We recommend the Corps of Engineers look for on-site (in basin) aquatic resources mitigation opportunities that would provide environmental benefits. The mitigation need not be open water but other wetland habitats that could be developed demonstrating aquatic resources benefits.

- The proposed project includes filling 1.70 acres of wetlands for the SASA. We believe there are opportunities for further avoidance by downsizing or changing the footprint of the SASA. Also the Corps of Engineers should evaluate other off-site existing facilities such as at Paine Field for meeting the overall project purpose for the SASA and avoiding the wetland impacts. EPA recommends the Corps conduct an independent alternatives analysis for the SASA that demonstrates the SASA is the least environmentally damaging practicable alternative per the Clean Water Act Section 404(b)(1) Guidelines.

- The applicant proposes to fill 1.92 acres of wetlands for on-site borrow sites. It is EPA's position that off-site borrow areas are available which would avoid the on-site impacts. EPA recommends the Corps of Engineers conduct an independent alternatives analysis for the on-site borrow areas and demonstrate that the borrow sites are the least environmentally damaging practicable alternative consistent with the 401(b)(1) Guidelines.

Based upon our concerns and comments as stated above, we can not conclude that this project complies with the Clean Water Act Section 404(b)(1) Guidelines. Accordingly, EPA recommends the permit be denied as proposed.

EPA is willing to meet with the applicant and Corps of Engineers to discuss and resolve the issues of identifying on-site mitigation in Des Moines Creek and Miller Creek Watersheds; avoiding the wetland fill at the SASA; and avoiding the wetland fill at the on-site borrow areas.

Should you have any questions or desire additional coordination concerning this project, please contact Steven Roy of my staff at (206) 553-6221.

Sincerely,

Fred Weinmann, Acting Manager
Aquatic Resources Unit

cc: Ecology
WDF&W
NMFS
USFWS
Applicant

CHARLES A. BOOTH, MAYOR
Frank Currie, Director of Public Works
Dennis R. Dowdy, City Engineer

ENGINEERING DIVISION
25 West Main, Auburn, WA 98001
(253) 931-3010 Fax: (253) 931-3053

April 9, 1998

JOHNATHAN FRIEDMAN
REGULATORY DIVISION
US ARMY CORPS OF ENGINEERS
P O BOX 3755
4735 EAST MARGINAL WAY SOUTH
SEATTLE WA 98124 3775
FAX (206) 764-6602

RE: Port of Seattle's (Port) Proposed Wetland Mitigation in Auburn

Dear Mr. Friedman:

The City has been asked to comment regarding the Port's plans for wetland mitigation on a site in Auburn. In lieu of attending the public hearing, I would like to have this letter entered into the record during the hearing.

The Port is proposing to develop wetlands in the City of Auburn (City) to replace wetlands to be filled at Seattle-Tacoma International Airport. When the Port first approached the City of Auburn to discuss this possible development, we were concerned about the potential impact on the City. We held a series of discussions with the Port and, following those discussions, we felt the Port addressed our concerns. The Auburn City Council approved, by a unanimous vote, the execution of an Interlocal Agreement between the City and the Port relating to the Port's development of the wetland mitigation site. The City and the port executed this Interlocal Agreement on March 18, 1998. I would like to submit a copy of this Agreement into the record of this proceeding. 1

Now that we have completed the Interlocal Agreement, the City and the Port have embarked on the permit and approval process discussed in the Agreement. We anticipate that this process will go forward in the usual manner for this type of project and should be completed sometime this summer.

If the Corps of Engineers (Corps) or Department of Ecology (DOE) has any questions about the Interlocal Agreement or the Auburn permit process, please fell free to contact us. Thank you for your consideration.

Sincerely,

Dennis R. Dowdy, C.E., P.E.
Acting Public Works Director
Department of Public Works
City of Auburn

DRD/bd

cc: Tom Walsh, Foster Pepper & Shefelman PLLC (FAX (206) 447-9700)

REF. H:\ENGINEER\E98\E98-343

INTERLOCAL AGREEMENT

Between City of Auburn and Port of Seattle Regarding Wetlands Construction, Infrastructure Improvements, and Property Transfer

THIS INTERLOCAL AGREEMENT is made and entered into as of this 18 day of March, 1998, between the CITY OF AUBURN, a municipal corporation of the State of Washington ("Auburn"), and the PORT OF SEATTLE, a municipal corporation of the State of Washington (the "Port"), relating to wetlands construction, infrastructure improvements, and a transfer of property from the Port to Auburn.

Recitals

A. The Port is the owner of a parcel of property approximately 69 acres in size located in the City of Auburn west of the Green River and south of S. 277th St., legally described in Exhibit A attached hereto and depicted on the aerial photograph attached hereto as Exhibit B (the "Subject Property"). Approximately 4.3 acres of the Subject Property have been delineated as existing wetlands. The Port has proposed to construct additional wetlands on the Subject Property as mitigation for certain wetlands filling proposed by the Port at Seattle-Tacoma International Airport (the "Airport"). The Port intends to construct the wetlands and arrange for their retention as public wetlands/open space in perpetuity.

B. The Subject Property is zoned single-family residential (R-2). Auburn is willing to consider and act on: (1) an amendment of its zoning code to clarify that publicly-owned wetlands/open space is a permitted use on the Subject Property; and (2) all necessary Auburn permits to authorize construction of the wetlands on the Subject Property.

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C. King County is planning to construct a recreational trail along the Green River, and the Port intends to donate to King County a portion of the Subject Property adjacent to the Green River for the trail. The portion of the Subject Property to be donated to King County consists of approximately 1.7 acres.

D. Auburn is pursuing certain infrastructure improvements in the vicinity of the Subject Property which may include, among other activities, the formation of a Local Improvement District (LID) or other financing mechanism to provide street and utility improvements in the area. The Port is willing to support Auburn's infrastructure improvements and make financial contributions to Auburn in lieu of assessment of the Subject Property pursuant to an LID or other financing mechanism. The Port is also willing to contribute towards other infrastructure improvements as specified in this Interlocal Agreement. In total, the Port will pay Auburn $642,000 for street and utility improvements, utility system development charges, and floodplain mapping costs (as set forth in Sections 4 through 6 below), and will transfer to Auburn an excess portion of the Subject Property or its equivalent cash value (as set forth in Sections 4 and 7 below). Auburn, at its sole discretion, may utilize the funds paid under this Agreement for planning, design, right-of-way, and/or construction of any of these improvements. The timing of all cash payments and the property transfer is set forth in Section 7 below.

E. The Port's contribution to Auburn will include a donation of an excess portion of the Subject Property that will not be necessary for wetlands construction or the public trail (or its equivalent cash value). Auburn has expressed interest in this excess portion of the Subject Property for use in conjunction with its infrastructure improvements in the area.

F. Exhibit C to this Interlocal Agreement is a drawing of the Subject Property generally showing the areas of the Subject Property that are currently anticipated to be retained by the Port for wetlands, donated to King County for a trail, and transferred to Auburn.

G. The transfer of portions of the Subject Property by the Port to Auburn and King County is being undertaken in accordance with the provisions of Chapter 39.33 RCW. A public hearing with respect to these transfers was conducted on January 13, 1997, and the Port Commission authorized the transfer of portions of the Subject Property to King County and Auburn subject to certain conditions.

Agreement

1. Construction of Wetlands on Subject Property.

1.1 Auburn will initiate, consider, and act on an amendment of the Auburn zoning code to clarify that wetlands are permitted outright on the Subject Property. The Port will apply to Auburn for a grading permit and other permits and approvals required by Auburn for construction of the wetlands on the Subject Property. Auburn will review and process the zoning amendment, grading permit, and other permits and approvals in a timely, reasonable, and standard manner.

1.2 The Port will construct new wetlands on the Subject Property substantially in the manner depicted on the plan at Exhibit C. The Port may change this plan as it determines necessary to respond to regulatory agency requirements, unexpected site conditions, or other new information or changed circumstances; provided that, after issuance of an Auburn permit, any changes will be subject to Auburn's standard requirements for City approval of permit changes.

2. **Designation of King County Property.** In consultation with King County and Auburn, the Port will designate the portion of the Subject Property adjacent to the Green River to be donated to King County for the recreational trail (the "King County Property"). The Port and/or King County will apply to Auburn for a lot line adjustment or subdivision approval, if required by Auburn, to establish the King County Property as a separate parcel capable of being conveyed to King County. Auburn will review and process the application in a timely, reasonable, and standard manner.

3. **Designation of Wetlands and Excess Area.** The Port is seeking permits from appropriate regulatory agencies to authorize its proposed wetlands fill at the Airport, including a Section 404 Permit from the U.S. Army Corps of Engineers. As part of the permit process, a determination will be made as to the precise amount of wetlands area that must be constructed on the Subject Property as mitigation for the wetlands fill at the Airport. At this time, the Port has estimated the amount of wetlands mitigation area that may be required (as depicted in Exhibit C) but a final determination by applicable regulatory agencies has not yet been made. Because it is possible that the

regulatory agencies may require a greater amount of wetlands mitigation area than the Port has estimated, or a different configuration of wetlands area than currently proposed, the Port is not able to make a final determination at this time as to the amount and which portion of the Subject Property will be allocated to wetlands use and the amount and which portion of the Subject Property will be available for other use. The Port will determine the portion of the Subject Property to be designated as wetlands and wetlands buffer area (the "Wetlands Area") and the portion to be available for other use (the "Excess Area") prior to the transfer of the Excess Area to Auburn. However, the Excess Area shall not include a 20-foot-wide buffer adjacent to the existing wetland on the eastern boundary of the Excess Area. At this time, the Port estimates the amount of Excess Area to be approximately 16-20 acres.

4. City Assessments.

4.1 Port Payment in Lieu of Assessment. Auburn is planning to construct certain infrastructure improvements in the area where the Subject Property is located which will benefit the Subject Property, including the following (the "Street and Utility Improvements"): I Street from S. 277th St. to approximately the westerly extension of the southern boundary of the Subject Property, including water and sewer conveyance systems; regional stormwater detention, water quality, and conveyance facilities to serve the north storm drainage basin as shown in Auburn's Drainage Master Plan; two additional traffic lanes on S. 277th Street from Auburn Way N. to I Street, including related traffic signals, lighting, and non-motorized trail elements; all as shown on Auburn's Comprehensive Plan or as designated in the Special Planning Area established by Ordinance No. 4912. Auburn has estimated the cost of the Street and Utility Improvements and is considering the formation of an LID or other financing mechanism to finance the construction of these improvements. Pursuant to an LID or similar financing mechanism, the costs will be apportioned on a parcel-by-parcel basis consistent with standard assessment methodology. When the Port creates wetlands on the Wetlands Area, and King County creates a recreational trail on the King County Property, these properties will not be available for payment of a fair share of the costs associated with the Street and Utility Improvements, resulting in a greater financial burden on Auburn and other property owners. Therefore, the Port will:

a. pay to Auburn the sum of Four Hundred Twenty Two Thousand Dollars ($422,000), which Auburn will expend solely for the benefit of the Street and Utility Improvements; and

b. transfer to Auburn either (i) the Excess Area in a size not smaller than twenty acres, or (ii) if the Excess Area is smaller than twenty acres, a combination of Excess Area plus cash value of the difference between the Excess Area acreage transferred and twenty acres. If the Excess Area is smaller than sixteen acres, Auburn may, at its option, require the Port to pay Auburn the cash value of the entire twenty acres and transfer no portion of the Excess Area. If the parties agree that the Port will transfer to Auburn an Excess Area larger than twenty acres, Auburn will pay the Port the cash value of the Excess Area transferred in excess of twenty acres. The cash value of the Excess Area is hereby established as Twenty Six Thousand Nine Hundred Dollars ($26,900) per acre. Auburn will use, trade, sell, or otherwise manage or dispose of the Excess Area, and will expend any payments of cash value of the Excess Area, solely for the benefit of the Street and Utility Improvements.

4.2 **Wetlands Area and King County Property Not Subject to Assessment; Assessment on Excess Area.** In consideration for the Port's payment and property transfer to Auburn, the Wetlands Area and the King County Property will not be subject to any City-imposed assessment, after the date of this Interlocal Agreement, relating to any costs of the Street and Utility Improvements including but not limited to assessments under the proposed North Auburn/I Street LID. Also, if the Port transfers the Excess Area to Auburn, Auburn will be responsible for payment of any City assessment imposed on the Excess Area after the date of this Interlocal Agreement, relating to any costs of the Street and Utility Improvements including but not limited to assessments under the proposed North Auburn/I Street LID. If the Port has paid any assessments on the Excess Area after the

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date of this Interlocal Agreement and prior to the transfer of the Excess Area to Auburn, Auburn will reimburse the Port for these payments at the time the Excess Area is transferred to Auburn. "Assessment" is defined to include an LID assessment, a charge imposed on property pursuant to a latecomers agreement, or other similar assessment, charge, or fee.

4.3 **Credit Against Assessment.** If this Interlocal Agreement or an Auburn assessment mechanism (e.g., the North Auburn/I Street LID) is successfully challenged, resulting in an assessment being imposed on the Wetlands Area or the King County Property relating to the Street and Utility Improvements, said assessment obligation shall be reduced by the amounts previously paid by the Port and the value of the Excess Area transferred to Auburn under the terms of this Interlocal Agreement.

4.4 **Refund If Funds Not Expended.** All cash payments of the Port pursuant to Sections 4.1 and 7.4.2 of this Interlocal Agreement will be deposited in an interest-bearing account or otherwise invested in a manner that earns a reasonable rate of return. If Auburn does not expend the cash payments made pursuant to Sections 4.1 and 7.4.2 on the Street and Utility Improvements within 10 years of the date Auburn receives the cash payments, Auburn shall: (i) refund to the Port the cash payments made by the Port pursuant to Sections 4.1 and 7.4.2 of this Interlocal Agreement, that were not expended within the time limit, including the actual earned interest or other return on the invested funds, less two-tenths of one percent (.2%) interest which will be retained by Auburn for administrative costs; and (ii) convey back to the Port any property transferred by the Port to Auburn pursuant to this Interlocal Agreement or, at Auburn's option, refund to the Port the cash value of the property in the amount established in Section 4.1.b. In the event that all these cash payments made by the Port are refunded to the Port and all the property transferred by the Port (or its cash value) are conveyed back to the Port, the prohibition on assessments in Section 4.2 will be void and no longer in effect.

5. **System Development Charges.**

5.1 **Port Payment in Lieu of System Development Charges.** Auburn has incurred and will incur certain costs to develop its sanitary and storm sewer utility systems for certain service areas containing the Subject Property. Auburn seeks to recover portions of these costs from owners of property using these sanitary and storm utility systems (referred to herein as "System Development Charges"). In lieu of paying System Development Charges with regard to the Wetlands Area and King County Property, the Port will pay to Auburn the sum of One Hundred Eighty Thousand Dollars ($180,000), not subject to refund except under conditions set forth in Section 5.3 of this Interlocal Agreement.

5.2 **Wetlands Area and King County Property Not Subject to System Development Charges.** In consideration for the Port's payment to Auburn, the Wetlands Area and the King County Property will not be subject to any System Development Charges after the date of this Interlocal Agreement. Also, if the Port transfers the Excess Area to Auburn, Auburn will be responsible for payment of any System Development Charges imposed on the Excess Area after the date of this Interlocal Agreement. If the Port has paid any System Development Charges on the Excess Area after the date of this agreement and prior to the transfer of the Excess Area to Auburn, Auburn will reimburse the Port for these payments at the time the Excess Area is transferred to Auburn.

5.3 **Credit Against Charge.** If a legal challenge is filed regarding this Interlocal Agreement, a System Development Charge, or otherwise, which results in a System Development Charge being imposed on the Wetlands Area or the King County Property, the Port (and King County, in the case of the King County Property) shall receive a credit against the System Development Charge in an amount equal to the payment made by the Port in lieu of System Development Charge.

6. **Floodplain Change.** As a result of the Port's construction of wetlands, a part of the Wetlands Area will be lowered in elevation and will become an extension of the 100-year floodplain located northwest of the Subject Property. The Port will construct (or, if mutually agreed by Auburn and the Port, pay to Auburn the costs of construction and Auburn will construct) a channel between the Wetlands Area and the south side of S. 277th St. The channel will be constructed approximately in one of the alternate locations depicted in the drawing at Exhibit D (or as otherwise mutually agreed by Auburn and the Port), it will be approximately 1,000 feet in length, it will be of sufficient width and depth to adequately convey floodwaters between the Wetlands Area and the existing floodplain, and it may include an access road in or adjacent to it. If requested by the Port, Auburn will assist the Port in acquiring, at the Port's expense, a permanent easement across the property north of the Subject Property sufficient to permit the Port to (i) construct the channel and (ii) maintain the channel in perpetuity. Following additional work to connect the Port-constructed channel to the floodplain, Auburn will seek from the Federal Emergency Management Agency and other appropriate entities an amendment of official floodplain maps to reflect this change. The Port will pay to Auburn the sum of Forty Thousand Dollars ($40,000) for the costs of preparing and processing this map amendment.

7. **Timing of Payments and Property Transfer.** This section governs the timing of all cash payments and the property transfer under this Interlocal Agreement including the payment and property transfer for the Street and Utility Improvements under Section 4 above, the system development charges under Section 5 above, and the floodplain mapping costs in Section 6 above.

7.1 **Initial Payment.** Within thirty (30) days following execution of this Interlocal Agreement by both parties, the Port will pay to Auburn the sum of One Hundred Thousand Dollars ($100,000).

7.2 **Lot Line Adjustment or Subdivision for Excess Area.** The Port will apply to Auburn for a lot line adjustment or subdivision approval, if required by Auburn, to establish the Excess Area as a separate parcel capable of being conveyed to Auburn. Auburn will review and process the application in a timely, reasonable, and standard manner.

7.3 **Remaining Cash Payments.** The Port will make the remaining cash payments due under this Agreement as follows:

a. The Port shall pay to Auburn the sum of One Hundred Forty Two Thousand Dollars ($142,000) within thirty (30) days following the Port's determination that Auburn has amended the zoning code to clarify that wetlands construction is a permitted use on the Subject Property and Auburn has issued all necessary permits for the proposed wetlands construction on the Subject Property.

b. The Port shall pay to Auburn the sum of Four Hundred Thousand Dollars ($400,000) within thirty (30) days after the earlier of:

(i) the Port's determination that Auburn has amended the zoning code to clarify that wetlands construction is a permitted use on the Subject Property and Auburn has issued all necessary permits for the proposed wetlands construction on the Subject Property, and all applicable time periods for appealing the code amendment and permits have elapsed and either no appeal was filed or, if an appeal was filed, the appeal has been successfully concluded; or

(ii) four years have elapsed since the execution of this Interlocal Agreement and construction contracts for the Street and Utility Improvements have been executed; provided that, if construction contracts for the Street and Utility Improvements are executed within four years of execution of this Interlocal Agreement, the Port shall either (a) pay the $400,000 to Auburn when the construction contracts are executed or (b) pay to Auburn one-half the reasonable costs of borrowing $400,000 for the period of time between execution of the construction contracts and the date four years after execution of this Interlocal Agreement.

7.4 Property Transfer

7.4.1 Timing of Property Transfer. The Port will transfer the Excess Area to Auburn in accordance with the transfer procedure of Section 11 below within 30 days after: (i) the Port's determination that all necessary permits have been issued for the proposed wetlands fill at the Airport and for the wetlands construction on the Subject Property, and all applicable time periods for appealing the permits have elapsed and either no appeal was filed or, if an appeal was filed, the appeal has been successfully concluded; and (ii) any necessary lot line adjustment or subdivision approval has been granted that establishes the Excess Area as a separate parcel capable of being conveyed; and (iii) the U.S. Army Corps of Engineers, Seattle District, has determined that construction of the wetlands on the Wetlands Area is complete (or, if earlier, the Port's determination that the Excess Area is no longer required as a staging area for construction of the wetlands on the Wetlands Area).

7.4.2 City May Require Cash Instead of Property. Due to the timing of infrastructure improvements in the area, Auburn will need to know, by a certain time, the size and configuration of the Excess Area to be transferred to Auburn. If the Port is not able to make a determination of the size and configuration of the Excess Area by that time, Auburn may choose to receive a cash payment instead of the property in order to keep its infrastructure improvements on schedule. Accordingly, if the Port has not transferred the Excess Area to Auburn by October 1, 1998, Auburn may require that the Port pay the cash value of twenty acres of Excess Area instead of transferring the Excess Area to Auburn. If Auburn determines that it is necessary to accept cash instead of property pursuant to this section, it will notify the Port in writing of its determination. The Port will then have thirty (30) days to notify Auburn in writing that it will transfer the Excess Area to Auburn as soon as the transfer procedures of Section 11 of this Interlocal Agreement are completed and that it will proceed to complete the transfer procedures of Section 11 immediately and in an expedited manner. If the Port does not provide such notice to Auburn, the Port shall pay to Auburn the cash value of twenty acres of Excess Area as follows: the Port shall pay 25% of the cash value as soon as the conditions of Section 7.3.a have been satisfied; and the Port shall pay the remaining 75% of the cash value as soon as the conditions of Section 7.3.b have been satisfied. If the

provisions of Section 7.3.b (ii) (b) are invoked, the borrowing costs shall include the costs of borrowing 75% of the cash value of the Excess Area.

8. **Costs of Defending Against Appeal or Legal Action.** If an appeal is filed challenging the zoning code amendment or permits relating to construction of the wetlands on the Subject Property, or if a legal action is brought challenging the validity of this Interlocal Agreement, the Port will pay the attorneys fees and costs (including the costs of retaining consultants and expert witnesses) reasonably incurred by Auburn in defending against the appeal or legal action.

9. **Easement for Wetlands Construction and Irrigation Water Line.** Following transfer of the Excess Area to Auburn, the Port may need temporary access on and across the Excess Area to construct the wetlands on the Wetlands Area and to construct and maintain a temporary water line to the Wetlands Area. At the time of transfer of the Excess Area to Auburn, the Port may retain: (i) a temporary construction easement over the Excess Area for access and utilities for constructing the wetlands in the Wetlands Area; and (ii) a temporary easement on and across the Excess Area for a water line to the Wetlands Area for irrigating the wetlands vegetation during the initial growing seasons following planting. The easements shall be substantially in the form attached as Exhibit E to this Interlocal Agreement.

10. **Water Supply for Wetlands Area.** Depending on the amount of rainfall, it may be necessary for the Port to irrigate the Wetlands Area during the initial growing seasons following planting (currently estimated to be three years). Auburn will provide water service to the Wetlands Area at a peak flow rate (e.g. gallons per minute), quantity (e.g. acre-feet per year), and during times that the Port reasonably determines is necessary for irrigating the Wetlands Area, not to exceed 275 gallons per minute and 4,000 cubic feet per year. The Port will pay Auburn's usual and customary fees and charges for the temporary water service.

11. **Procedure for Transfer of Property to Auburn.** The conveyance of the Excess Area to Auburn shall be accomplished in accordance with the following provisions.

11.1 **Deed/Title.** The conveyance shall be by Special Warranty Deed, subject to easements, encumbrances and

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restrictions of record. The Port will satisfy or cause the removal of any financial liens or encumbrances on the Excess Area, except (i) taxes, which shall be prorated at closing, (ii) surface water management charges, assessments and similar governmental or utility liens, imposed by governmental entities other than Auburn or imposed by Auburn prior to the date of this Interlocal Agreement, which shall be prorated at closing, and (iii) assessments imposed by Auburn after the date of this Interlocal Agreement which will be paid by Auburn as provided above. The conveyance shall be free and clear of tenancies or parties in possession. If Auburn desires title insurance, Auburn shall be responsible for ordering and paying any premiums associated with title insurance coverage.

11.2 **Review and Disclaimer.** At least 30 days prior to the date of the conveyance, the Port will give to Auburn written notice of the proposed conveyance and the scheduled date of closing. During such 30-day period, Auburn shall have the right to inspect the property to be conveyed, the condition of title, and similar matters to confirm that Auburn desires to accept the conveyance. In the event Auburn elects not to accept the conveyance, Auburn shall so notify the Port within the 30-day period, in which event the obligation of the Port to convey the property offered to Auburn shall terminate. The failure of Auburn to give notice of non-approval within the 30-day period shall constitute Auburn's approval of the conveyance. Auburn's decision not to accept a conveyance shall not terminate this Interlocal Agreement as it applies to the remainder of the Subject Property and shall not impair or reduce the rights of the Port hereunder.

11.3 **Closing Costs.** Escrow fees, recording fees and similar closing costs (if any) shall be divided equally between Auburn and the Port. The Port shall be responsible for any real estate excise tax on the conveyance. Each party shall bear its own attorneys' and consultants' fees and costs.

11.4 **Other Documents.** Each party agrees to sign such other agreements and documents as may be reasonably required to complete the conveyance as provided herein including, to the extent appropriate, FIRPTA Certificates, excise tax affidavits, easements as required under this Interlocal Agreement, and similar documents.

12. **Waiver of Reimbursement Claim.** The Port acknowledges and agrees that its payments and property transfer to Auburn under this Interlocal Agreement are voluntarily made. The Port hereby waives any right it may have to later seek reimbursement from Auburn for these payments or property transfer.

13. **Assignment/Pledge of Interlocal Agreement.** Auburn may assign its rights under this agreement, or pledge this agreement as security, if necessary to borrow funds for the construction of the Street and Utility Improvements.

IN WITNESS WHEREOF, the parties hereto have executed this Interlocal Agreement as of the day first above mentioned.

CITY OF AUBURN

By: Charles A. Booth
Charles A. Booth
Mayor

Date: Jan 21, 1998

PORT OF SEATTLE

By: Gary Grant
Pres., Port Commission

Date: March 18, 1998

ATTEST:
By: Danielle E. Daskam
Danielle E. Daskam
City Clerk

Date: Jan 21, 1998

By: J. D. Blank
Sect., Port Commission

Date: March 19, 1998

APPROVED AS TO FORM:

MICHAEL J. REYNOLDS
CITY ATTORNEY

Date: 1/17/98

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EXHIBITS

A. Legal Description of Subject Property

B. Aerial Photograph of Subject Property

C. Drawing of Subject Property Showing Wetlands Area, King County Property, and Excess Area

D. Drawing of Channel

E. Form of Easement for Wetlands Construction and Irrigation Water Line

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SCHEDULE A

(Continued)

LEGAL DESCRIPTION

A DISTANCE OF 637.11 FEET TO A CONCRETE MONUMENT MARKED NO. 1 - LS 11191 ON THE WEST LINE OF SAID G. R. KING DONATION LAND CLAIM; THENCE NORTH 00°52'46" EAST, ALONG SAID WEST LINE, A DISTANCE OF 80.25 FEET TO A 2" DIAMETER PLUGGED IRON PI MARKING THE SOUTHEAST CORNER OF SAID W. A. COX DONATION LAND CLAIM NUMBER 38; THENCE NORTH 61°48'09" EAST, ALONG SAID EAST LINE OF THE W. A. COX DONATION LAN CLAIM AND SAID WEST LINE OF THE G. R. KING DONATION LAND CLAIM, A DISTANCE OF 2,648.25 FEET TO THE TRUE POINT OF BEGINNING;

EXCEPT THAT PORTION OF SAID EASEMENT, IF ANY, LYING WITHIN SOUTH 277TH STREET; ALSO

EXCEPT THOSE PORTIONS OF SAID EASEMENT LYING WITHIN "I" STREET AS CONVEYED TO TH CITY OF AUBURN BY INSTRUMENT RECORDED UNDER RECORDING NUMBER 8911280990.

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CHICAGO TITLE INSURANCE COMPANY

Order No.: 479129

SHORT PLAT CERTIFICATE

SCHEDULE A

(Continued)

LEGAL DESCRIPTION

THAT PORTION OF THE GEORGE E. KING DONATION LAND CLAIM NUMBER 40, IN SECTION 31, TOWNSHIP 22 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

COMMENCING AT A 6" X 6" SANDSTONE MONUMENT MARKING THE SOUTHWEST CORNER OF THE R. H. BEATTY DONATION LAND CLAIMS NUMBERS 37 AND 44; THENCE SOUTH 89°00'01" EAST ALONG THE SOUTH LINE OF SAID R. H. BEATTY DONATION LAND CLAIM AND THE NORTH LINE OF THE W. A. COX DONATION LAND CLAIM NUMBER 38 A DISTANCE OF 2,643.18 FEET TO A 2" DIAMETER CONCRETE-FILLED IRON PIPE MARKING THE SOUTHEAST CORNER OF SAID R. H. BEATTY DONATION LAND CLAIM AND THE NORTHEAST CORNER OF SAID W. A. COX DONATION LAND CLAIM, SAID POINT ALSO BEING THE TRUE POINT OF BEGINNING; THENCE CONTINUING SOUTH 89°00'01" EAST, 2,255.93 FEET TO A POINT ON A LINE ESTABLISHED BY BOUNDARY LINE AGREEMENT RECORDED UNDER RECORDING NUMBER 8110150749; THENCE SOUTHERLY ALONG SAID BOUNDARY LINE TO A MONUMENT MARKED NO. 2 L.S. 11191, AS DESCRIBED IN BOUNDARY LINE AGREEMENT RECORDED UNDER RECORDING NUMBER 7912170640; THENCE NORTH 88°48'40" WEST ALONG AN EXISTING OLD WOOD AND WIRE FENCE REFERRED TO IN SAID BOUNDARY LINE AGREEMENT A DISTANCE OF 2,676.50 FEET TO A CONCRETE MONUMENT MARKED NO. 1-LS 11191 ON THE WEST LINE OF THE G. E. KING DONATION LAND CLAIM NUMBER 40; THENCE NORTH 00°52'46" EAST ALONG SAID WEST LINE, 80.25 FEET TO A 2" DIAMETER PLUGGED IRON PIPE MARKING THE SOUTHEAST CORNER OF SAID W. A. COX DONATION LAND CLAIM NUMBER 38; THENCE NORTH 01°48'09" EAST, ALONG SAID EAST LINE OF THE W. A. COX DONATION LAND CLAIM AND SAID WEST LINE OF THE G. E. KING DONATION LAND CLAIM, 2,648.25 FEET TO THE TRUE POINT OF BEGINNING;

EXCEPT THEREFROM THAT PART LYING WITHIN SOUTH 277TH STREET, IF ANY; ALSO

EXCEPT THAT PORTION OF THE GEORGE E. KING DONATION LAND CLAIM NUMBER 40, IN SECTION 31, TOWNSHIP 22 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

COMMENCING AT A 6" X 6" SANDSTONE MONUMENT MARKING THE SOUTHWEST CORNER OF THE R. H. BEATTY DONATION LAND CLAIMS NUMBERS 37 AND 44; THENCE SOUTH 89°00'01" EAST ALONG THE SOUTH LINE OF SAID R. H. BEATTY DONATION LAND CLAIM AND THE NORTH LINE OF THE W. A. COX DONATION LAND CLAIM NUMBER 38, A DISTANCE OF 2,643.18 FEET TO A 2" DIAMETER CONCRETE-FILLED IRON PIPE MARKING THE SOUTHEAST CORNER OF SAID BEATTY DONATION LAND CLAIM AND THE NORTHEAST CORNER OF SAID W. A. COX DONATION LAND CLAIM, SAID POINT ALSO BEING THE TRUE POINT OF BEGINNING; THENCE CONTINUING SOUTH 89°00'01" EAST, A DISTANCE OF 638.43 FEET; THENCE SOUTH 01°48'09" WEST, ALONG A LINE PARALLEL WITH THE EAST LINE OF SAID W. A. COX DONATION LAND CLAIM, A DISTANCE OF 2,730.61 FEET TO A POINT ON THE BOUNDARY LINE ESTABLISHED BY AGREEMENT RECORDED UNDER RECORDING NUMBER 7912170640; THENCE NORTH 88°48'40" WEST A DISTANCE OF 637.11 FEET TO A CONCRETE MONUMENT MARKED NO. 1 - LS 11191 ON THE WEST LINE OF SAID G. E. KING DONATION LAND CLAIM; THENCE NORTH 00°52'46" EAST, ALONG SAID WEST LINE, A DISTANCE OF 80.25 FEET TO A 2" DIAMETER PLUGGED IRON PIPE MARKING THE SOUTHEAST CORNER OF SAID W. A. COX DONATION LAND CLAIM NUMBER 38; THENCE NORTH 01°48'09" EAST, ALONG SAID EAST LINE OF THE W. A. COX DONATION LAND

SEE NEXT PAGE

SCHEDULE A

(Continued)

LEGAL DESCRIPTION

CLAIM AND SAID WEST LINE OF THE G. E. KING DONATION LAND CLAIM, A DISTANCE OF 2,648.25 FEET TO THE TRUE POINT OF BEGINNING; ALSO

EXCEPT THAT PORTION OF THE GEORGE E. KING DONATION LAND CLAIM NUMBER 40 IN SECTION 31, TOWNSHIP 22 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

COMMENCING AT A 6" X 6" SANDSTONE MONUMENT MARKING THE SOUTHWEST CORNER OF THE R. H. BEATTY DONATION LAND CLAIMS NUMBERS 37 AND 44;
THENCE SOUTH 89°00'01" EAST, ALONG THE SOUTH LINE OF SAID R. H. BEATTY DONATION LAND CLAIM AND THE NORTH LINE OF THE W. A. COX DONATION LAND CLAIM NUMBER 38 A DISTANCE OF 2,643.18 FEET TO A 2" DIAMETER CONCRETE-FILLED IRON PIPE MARKING THE SOUTHEAST CORNER OF SAID R. H. BEATTY DONATION LAND CLAIM AND THE NORTHEAST CORNER OF SAID W. A. COX DONATION LAND CLAIM;
THENCE CONTINUING SOUTH 89°00'01" EAST 638.43 FEET TO THE POINT OF BEGINNING;
THENCE CONTINUING SOUTH 89°00'01" EAST 1,617.39 FEET TO A POINT ON A LINE ESTABLISHED BY BOUNDARY LINE AGREEMENT RECORDED UNDER RECORDING NUMBER 8110150749;
THENCE ALONG SAID LINE SOUTH 46°26'33" EAST 203.45 FEET;
THENCE SOUTH 34°19'49" EAST 211.01 FEET;
THENCE SOUTH 09°48'39" WEST 412.45 FEET;
THENCE SOUTH 01°43'38" EAST 263.60 FEET;
THENCE SOUTH 08°38'47" WEST 208.18 FEET;
THENCE NORTH 88°49'03" WEST 503.22 FEET;
THENCE NORTH 19°30'00" EAST 110.98 FEET;
THENCE NORTH 88°49'05" WEST 1,283.52 FEET;
THENCE NORTH 01°48'33" EAST ALONG A LINE PARALLEL WITH THE EAST LINE OF SAID COX DONATION LAND CLAIM 1,008.50 FEET TO THE POINT OF BEGINNING;

TOGETHER WITH AN EASEMENT FOR INGRESS, EGRESS AND UTILITIES OVER, UNDER AND ACROSS THE SOUTH 60 FEET OF THE FOLLOWING DESCRIBED PROPERTY:

THAT PORTION OF THE GEORGE E. KING DONATION LAND CLAIM NUMBER 40, IN SECTION 31, TOWNSHIP 22 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

COMMENCING AT A 6" X 6" SANDSTONE MONUMENT MARKING THE SOUTHWEST CORNER OF THE R. H. BEATTY DONATION LAND CLAIMS NUMBERS 37 AND 44; THENCE SOUTH 89°00'01" EAST ALONG THE SOUTH LINE OF SAID R. H. BEATTY DONATION LAND CLAIM AND THE NORTH LINE OF THE W. A. COX DONATION LAND CLAIM NUMBER 38, A DISTANCE OF 2,643.18 FEET TO A 2" DIAMETER CONCRETE-FILLED IRON PIPE MARKING THE SOUTHEAST CORNER OF SAID BEATTY DONATION LAND CLAIM AND THE NORTHEAST CORNER OF SAID W. A. COX DONATION LAND CLAIM, SAID POINT ALSO BEING THE TRUE POINT OF BEGINNING; THENCE CONTINUING SOUTH 89°00'01" EAST, A DISTANCE OF 638.43 FEET; THENCE SOUTH 01°48'09" WEST, ALONG A LINE PARALLEL WITH THE EAST LINE OF SAID W. A. COX DONATION LAND CLAIM, A DISTANCE OF 2,710.61 FEET TO A POINT ON THE BOUNDARY LINE ESTABLISHED BY AGREEMENT RECORDED UNDER RECORDING NUMBER 7912170640; THENCE NORTH 88°48'40" WEST

AR 036064

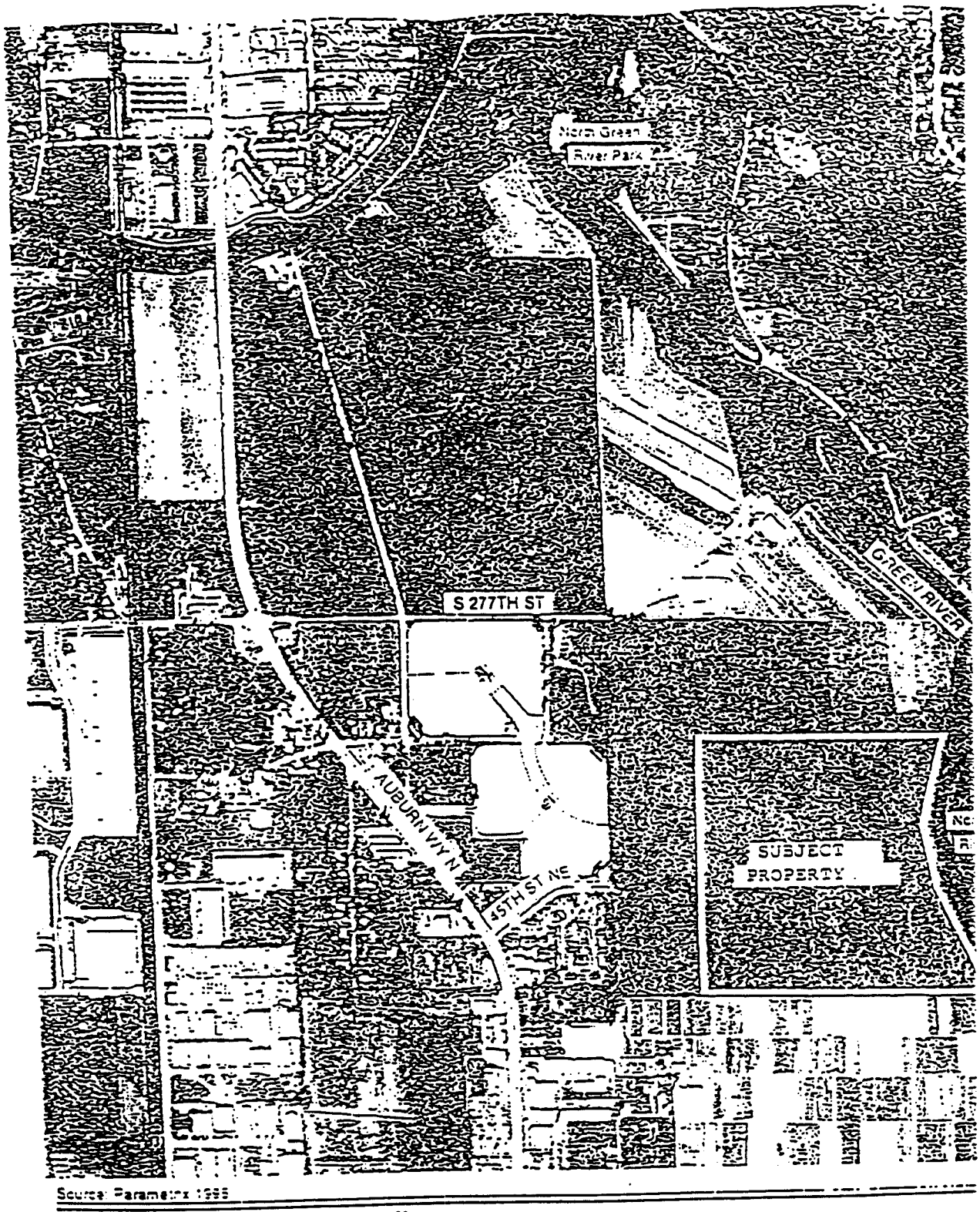
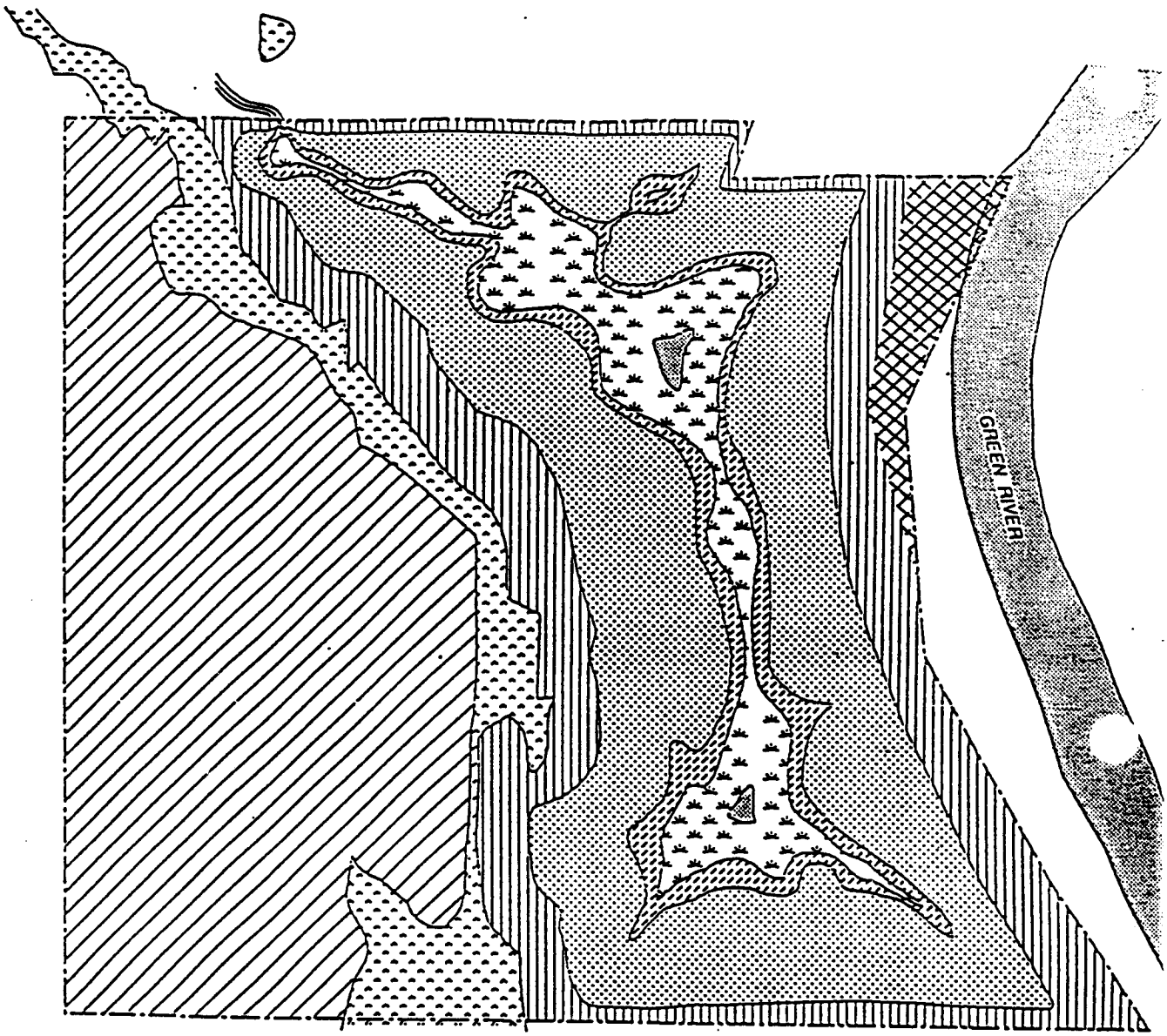


EXHIBIT B

AR 036065



Port of Seattle MP:USS-2912-01(CD) 8/97

Excess Area

Wetlands Area
- Existing Wetlands
- Forested Wetland
- Shrub Wetland
- Emergent Wetland
- Open Water/Wetland
- Buffer

King County Property

N

APPROXIMATE SCALE IN FEET

0 150 300

EXHIBIT C

AR 036066

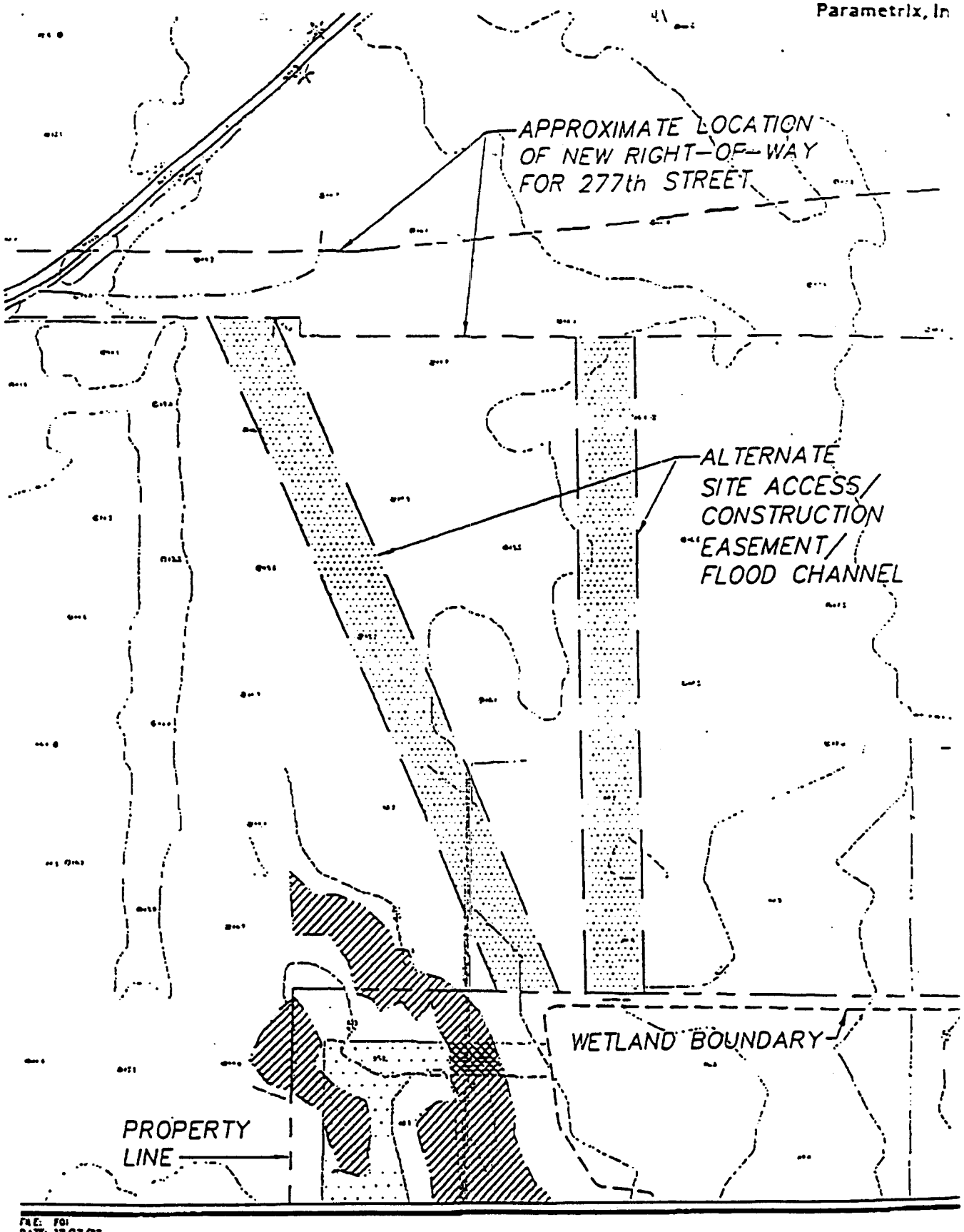


Exhibit D
Flood Channel Alternatives

AR 036067

RECORDED AT THE REQUEST OF
AND AFTER RECORDING RETURN TO:

FOSTER PEPPER & SHEFELMAN PLLC
1111 Third Avenue, Suite 3400
Seattle, Washington 98101
Attn: Thomas M. Walsh

DECLARATION OF EASEMENT FOR WATER LINE AND ACCESS
(Port of Seattle)

Grantor: Port of Seattle, a Washington municipal corporation

Grantee: Port of Seattle, a Washington municipal corporation

Legal Description: Official legal description on Exhibit A

Assessor's Tax Parcel ID#: _____

Reference # (If applicable): N/A

This DECLARATION OF EASEMENT FOR WATER LINE AND ACCESS (the "Easement") is made and declared as of this ____ day of _____, 1997, by the Port of Seattle, a Washington municipal (the "Port").

RECITALS:

A. The Port is the owner of that certain real property located in King County, Washington and legally described on Exhibit A attached hereto and by this reference incorporated herein (the "Port Property").

B. Concurrently herewith, the Port is conveying to the City of Auburn, a municipal corporation of King County (the "City"), that certain portion of the Port Property described on Exhibit B attached hereto and by this reference incorporated herein (the "Auburn Property"). The portion of the Port Property retained by the Port is referred to herein as the "Retained Port Property."

C. In connection with the conveyance to the City of the Auburn Property, the Port is reserving unto itself and its successors and assigns an easement to provide access to

and the ability to construct, use, and maintain a water line across the Auburn Property for the benefit of the Retained Port Property.

NOW THEREFORE, the Port declares and establishes as follows:

1. Reservation of Easement. The Port hereby reserves for the benefit of the Retained Port Property, a non-exclusive easement over, under, upon and across that portion of the Auburn Property more specifically described on Exhibit C attached hereto and by this reference made a part hereof (the "Easement Area"), for the construction, replacement, repair, maintenance, use and operation of a water line and any and all necessary improvements for reasonable use and access to said water line.

2. Access. The Port hereby reserves for the benefit of the Retained Port Property, a non-exclusive easement over, upon, and across the Easement Area for access to the Retained Port Property.

3. Construction and Repairs. The Port shall pay all costs and expenses necessary to construct, operate, and maintain the Easement Area to provide access to the Retained Port Property and to install and maintain the water line therein, and shall comply with all applicable governmental laws applicable to the use and operation of the water line.

4. Indemnification. The Port hereby releases, indemnifies and promises to defend and save harmless the City from and against any and all liability, loss, damage, expense, actions and claims, including costs and reasonable attorneys' fees incurred by the City in defense thereof, asserted or arising directly or indirectly on account of or out of acts or omissions of the Port in the exercise of the rights reserved herein; provided, however this paragraph does not purport to indemnify the City against liability for damages arising out of bodily injury to persons or damage to property caused by or resulting from the intentional acts or sole negligence of the City, or its agents or employees.

5. Binding Effect. The covenants and obligations contained in this Easement are not personal, but shall run with the land and be binding upon and inure to the benefit of the respective heirs, personal representatives, transferees or successors in interest.

6. Amendment. This Easement may not be modified, amended or terminated without the prior written approval of the then owner of the property who is benefited or burdened by the provisions of any amendment to this Easement.

7. Governing Law. This Easement shall be governed by and construed in accordance with the laws of the state of Washington.

EXECUTED AND EFFECTIVE as of the date first written above.

PORT OF SEATTLE, a Washington municipal corporation

By: _____
Its: _____

Accepted and Approved By:

CITY OF AUBURN, a Washington municipal corporation of King County

By: _____
Its: _____

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that said person signed this instrument, on oath stated that said person was authorized to execute the instrument and acknowledged it as the _____ of the Port of Seattle, a Washington municipal corporation, to be the free and voluntary act of such corporation for the uses and purposes mentioned in the instrument.

Dated this _____ day of _____, 1997.

_____
(Signature of Notary)

_____
(Legibly Print or Stamp Name of Notary)
Notary public in and for the state of Washington,
residing at _____

My appointment expires _____

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that said person signed this instrument, on oath stated that said person was authorized to execute the instrument and acknowledged it as the _____ of the City of Auburn, a Washington municipal corporation of King County, to be the free and voluntary act of such corporation for the uses and purposes mentioned in the instrument.

Dated this _____ day of _____, 1997.

_____
(Signature of Notary)

_____
(Legibly Print or Stamp Name of Notary)
Notary public in and for the state of Washington, residing at _____

My appointment expires _____

Southwest Suburban Sewer District

431 SOUTHWEST AMBAUM BOULEVARD
SEATTLE, WASHINGTON 98166
244-9575

COMMISSIONERS
Stanley J. Carev
John Jovanovich
William A. Tracy

GENERAL MANAGER
Steve Sandelius

April 9, 1998

U. S. Army Corps of Engineers, Regulatory Branch
P. O. Box 3755
Seattle, WA 98124-3755

Attn: Jonathan Freedman, Project Manager

Re: Port of Seattle, proposal to fill 11.42 acres of wetlands

Dear Mr. Freedman,

Southwest Suburban Sewer District has a number of concerns with the Port's proposal to fill wetlands in the vicinity of the proposed third runway.

We have a large interceptor (27" diameter) sanitary sewer line running north and south in the vicinity of Miller Creek which may be impacted by the proposal to fill wetlands on the west side of Seatac Airport. We have not seen any plans on the extent of the project and cannot be specific about the impacts and offer the following comments as potential impacts.

1

1. Construction Impacts - There is a high probability that our manholes will be in the area to be filled. This presents the opportunity for those manholes to be damaged by earth moving equipment. In the event that a manhole is damaged, fill material could fill our sanitary sewer line and cause an overflow of wastewater into the wetlands. We request a copy of the fill design so that any manholes in the fill area can be identified, marked and raised to minimize the potential for damage to our system.

2

2. Fill Impacts - The depth of our 27" interceptor vary between 7 feet & 35 feet. The depth of fill over our lines needs to be analyzed by our engineer to determine if the fill will have any impact on the integrity of our sewer lines. Again, a detailed fill design will help us analyze any potential impacts caused by the proposed fill.

3. Future Impacts - Sewer Lines need periodic and/or emergency maintenance to prevent wastewater overflows. There may be impacts on our ability to maintain our sewer line by filling the wetlands. In addition, our ability to replace or rehabilitate our interceptor at the end of it's useful life may be impacted, limiting the rehabilitation methods and consequently increasing the cost to District ratepayers. 3

We would appreciate an opportunity to review and comment on the plans and specifications and attend the preconstruction meeting for the fill project to minimize the damage to our sanitary sewer system and the environment. We will be having discussions with the port concerning financial and construction impacts, however, we have not yet discussed this specific project with them. Anything you can do to promote communications will be appreciated.

Although our primary focus is on impacts to our sewer lines, we also have concerns for Miller Creek and it's tributaries. Southwest Suburban Sewer District has been working closely with the Des Moines Chapter of Trout Unlimited for over 10 years in an attempt to restore the salmon runs in Miller Creek. We operate a salmon hatchery on our Miller Creek Treatment Plant site which produces approximately 250,000 salmon per year to be planted in community streams including Miller Creek. We believe that the Port needs to focus it's mitigation efforts and dollars in the drainage basin affected by the filling of the wetlands, the Miller Creek Basin. While the proposed wetlands in Auburn may be cheaper and a large single site, something needs to be done to help Miller Creek. As you know, there was been an injunction against King County, DOT and the Port to prevent them from adding any additional storm drainage to Miller Creek. This injunction was removed only after those agencies reached agreement with private property owners in the early 1970's. Those agreements should be honored regardless of changes at Seatac or additional mitigation provided to the Miller Creek Drainage Basin. 4 5

It is very difficult to identify specific impacts because we have not received a copy of the design and will gladly review and comment when the design is completed.

If you have any questions, please call Steve Sandelius at (206) 244-9575.

Sincerely,

Southwest Suburban Sewer District

Steve Sandelius,
General Manager

HIGHLINE WATER DISTRICT

Serving the Southwest Metropolitan Area since 1946

April 17, 1998

Mr. Jonathan Freedman
Project Manager
U.S. Army Regulatory Branch
Army Corp. Of Engineers
P.O. Box 3755
Seattle, WA 98124-2255

Re: Port of Seattle Corp. of Engineers / Public Notice No. 96-4-02325

Dear Mr. Freedman:

The Highline Water District has concerns with the proposed elimination of 11.4 acres of wetlands. The District presently and in the future is depending upon ground water as a substantial source of potable water, which supplies our customers within our District.

The EIS indicated that the flows in both Des Moines Creek and Miller Creek would be increased with the elimination of the wetlands and other associated infiltration land areas. The reduction of infiltration of surface water will reduce the amount of aquifer recharge that will occur. This reduction in infiltration will negatively affect the amount of groundwater available for future use by the District and thus increase the costs for the District customers. Without the groundwater recharge; sources other than wells will have to be developed to provide water to the District customers.

The effects of the elimination of the wetlands upon the cost of future potable water have never been addressed by anyone. Why should the District customers be unfairly burdened with costs to develop new sources of water without compensation? By approval of the permit, will the Corp. of Engineers be willing to help pay for new alternative water sources?

We would appreciate a response as soon as possible.

Sincerely,

Keith A. Harris, P.E.
Manager, Planning/Construction

KAH:maf

23828 - 30th Ave. S. • P.O. Box 3867 • Kent, WA 98032 • 824-0375 / FAX: 824-0806

To: U.S. Army Corps of Engineers
Regulatory Branch
PO Box 3755
Seattle, Washington 98124-2255
Attn: Mr. Jonathan Freedman, Project Manager

Fm: Don Newby
City of Burien, Councilmember
2464 SW 150th Street
Burien, WA 98166

The Commissioners at the Port of Seattle send word that they wish to move and buy our land. How can you buy, move or sell the sky - the warmth of the land? The idea is strange to us. Yet we do not own the freshness of the air or the sparkle of the water. How can you buy them from us? Every part of the Highline area is sacred to my people. Every shiny pine needle, every sandy - rocky shore, every mist in the dark woods, every clearing and humming insect is holy in the memory and experience of my people.

We know that the Port of Seattle Commissioners do not understand our ways. One portion of the land is the same to them as the next, for they are strangers who come in the night and take from the land whatever they need. The earth is not their brother, but their enemy, and when they have conquered it they move on. They leave their fathers' graves, and their children's birthright is forgotten.

There is no quiet place in the Commissioners cities. No place to hear the leaves of spring or the rustle of insect wings. But perhaps because I am savage and do not understand - the clatter only seems to insult the ears. And what is there to life if a man cannot hear the lovely cry of the whippoorwill or the arguments of the frog around along Miller Creek at night.

The Port Commissioners too, shall pass - perhaps sooner than other government officials, continue to contaminate your bed and you will one night suffocate in your own waste.

When the salmon and trout are all caught, the tall ancient trees all destroyed and every inch of King County filled with the scent of aviation fuel and the view of the ripe hills blotted by wireless cell towers.

Where is the thicket gone ?

Where is the Eagle gone ?

And what is it to say good-bye to the swift and the hunt, the end of living and beginning of survival.

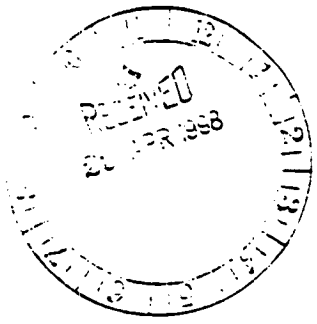
Paraphased From:
Chief Sealth, Duwamish Tribe, 1855
To President Franklin Pierce, Washington D.C.

Chief Sealth had a vision, many of us are here tonight and many more who could not attend would like to perserve some portion of that vision for future generations.

Thank you,

Don Newby

pril 16, 1998



U.S. Army Corps of Engineers
Regulatory Branch
P.O. Box 3755
Seattle, Washington 98124-2255

Attn: Jonathan Freedman, Project Manager:

Comments made at the April 9, 1998 joint public hearing U.S. Army Corp of Engineers and Washington State Department of Ecology

"Impacts to Streams" pg. 14

1 It clearly states that increases in (TSS) Total Suspended Solids from erosion and sedimentation will occur. I direct your attention to a picture of the North Employee Parking Lot which shows tremendous amounts of erosion and sedimentation flowing From that area which eventually impacted Miller Creek. Also a picture of Lake Reba Detention Facility due to heavy siltation build up from lack and inadequate erosion and diment control system during the construction on the North Employee Parking Lot as a result Lake Reba Detention Facility is inoperative today.

It also states that (TSS) increases will be short term this disaster happened in September and October and Lake Reba Detention Facility is inoperative today. Is that a definition of short term?

2 As you know the fines for these violations end up in the State's General Fund. Normandy Park has received no money for restoration or damages. The money should be given to the effected jurisdiction to be used towards education or restoration within that watershed.

3 It also states that there will be other impacts to the streams and wetlands in this Central Puget Sound Watershed. As a member of the Central Puget Sound Watershed Forum we will be submitting projects from this watershed for funding. Will our watershed projects Be given lower priority ratings because of the stated construction impacts in this watershed? or will the funding occur and the watershed projects completed just to have the dollars wash into Puget Sound.

The permit needs to be denied based on the following:

1. The North Employee Parking Lot construction fiasco (an ambitious project that ends as a ridiculous failure) is a warning sign of things to come.

2. **The ESA has not been addressed**

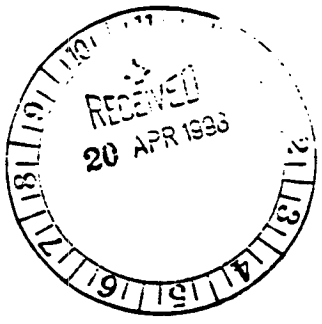
3. **The effected Jurisdictions receive no help for education or restoration for damages.**

4. **The fact that Central Puget Sound Watershed projects low priority ratings will cripple this watershed's ability to compete for funding with other watersheds.**

Sincerely,

Kathleen Quong-Vermeire
Normandy Park Councilmember
20209-2nd Ave. S.W.
Normandy Park, Wa. 98166-4255
(202) 878-8000

cc: Tom R. Luster, Environmental Specialist Department of Ecology



April 16, 1998

U.S. Army Corps of Engineers
Regulatory Branch
P.O. Box 3755
Seattle, Washington 98124-2255

Attn: Jonathan Freedman, Project Manager:

Comments made at the April 9, 1998 joint public hearing U.S. Army Corp of Engineers and Washington State Department of Ecology

As a Highline Water Commissioner I ask that you deny the permit based on the following concerns and unanswered questions.

Highline Water District service area includes parts of seven cities SeaTac, Burien, Des Moines, Federal Way, Kent, Normandy Park, Tukwila, including parts of King County and Port of Seattle.

... the city of SeaTac a manual intertie with the Highline Water District at the south end of the Airport provides a backup source of supply in the event of interruption in the Seattle water supply.

Is there a backup plan when the Highline Water District system becomes contaminated?

The District has water rights to 17.5 million gallons per day(MGD) of gound water within the Highline area.

What steps will be taken by the Port of Seattle to mitigate the contamination of the ground water?

What steps will be taken by the Port of Seattle to mitigate the loss of ground water recharge to the aquifers now being used and those that will be used in the future?

Removal of this natural groundwater from this area may require that an alternate new source of water be purchased by the Highline Water District. The capital cost to obtain a new water source is estimated at $4 million per one MGD of water based on 1995 dollars.

4/ **The proposed mitigation for loss of wetlands (construct new wetlands outside of the area) does not reduce the impact on water purveyors within the SeaTac area.**

The Highline Water District has had many unanswered concerns and questions that need to be addressed.

Sincerely,

Kathleen Quong-Vermeire

Kathleen Quong-Vermeire
Highline Water Commissioner
20209-2nd Ave. S.W.
Normandy Park, Wa. 98166-4255

cc: Tom R. Luster, Environmental Specialist Department of Ecology

Serving the Southwest Metropolitan Area since 1946

April 3, 1998

Department of Ecology
Permit Coordination Unit
P.O. Box 47703
Olympia, WA 98504-7703

Re: Port of Seattle Corp. of Engineers / Public Notice No. 96-4-02325

Dear Regulator:

The Highline Water District has concerns with the proposed elimination of 11.4 acres of wetlands. The District presently and in the future is depending upon ground water as a substantial source of potable water, which supplies our customers within our District.

The EIS indicated that the flows in both Des Moines Creek and Miller Creek would be increased with the elimination of the wetlands and other associated infiltration land areas. The reduction of infiltration of surface water will reduce the amount of aquifer recharge that will occur. This reduction in infiltration will negatively affect the amount of groundwater available for future use by the District and thus increase the costs for the District customers. Without the groundwater recharge; sources other than wells will have to be developed to provide water to the District customers.

The effects of the elimination of the wetlands upon the cost of future potable water have never been addressed by anyone. Why should the District customers be unfairly burdened with costs to develop new sources of water without compensation? By approval of the permit, will the Corp. of Engineers be willing to help pay for new alternative water sources?

We would appreciate a response as soon as possible.

Sincerely,

for Keith A. Harris

Keith A. Harris, P.E.
Manager, Planning/Construction

KAH:maf

23828 - 30th Ave. S. • P.O. Box 3867 • Kent, WA 98032 • 824-0375 / FAX: 824-0806

AR 036083

This petition, along with
documentation showing ownership
from the Vaudit. Their water
came from North Employee Parking Lot.

Kathleen

City of
Normandy Park

AR 036084

AR 036085

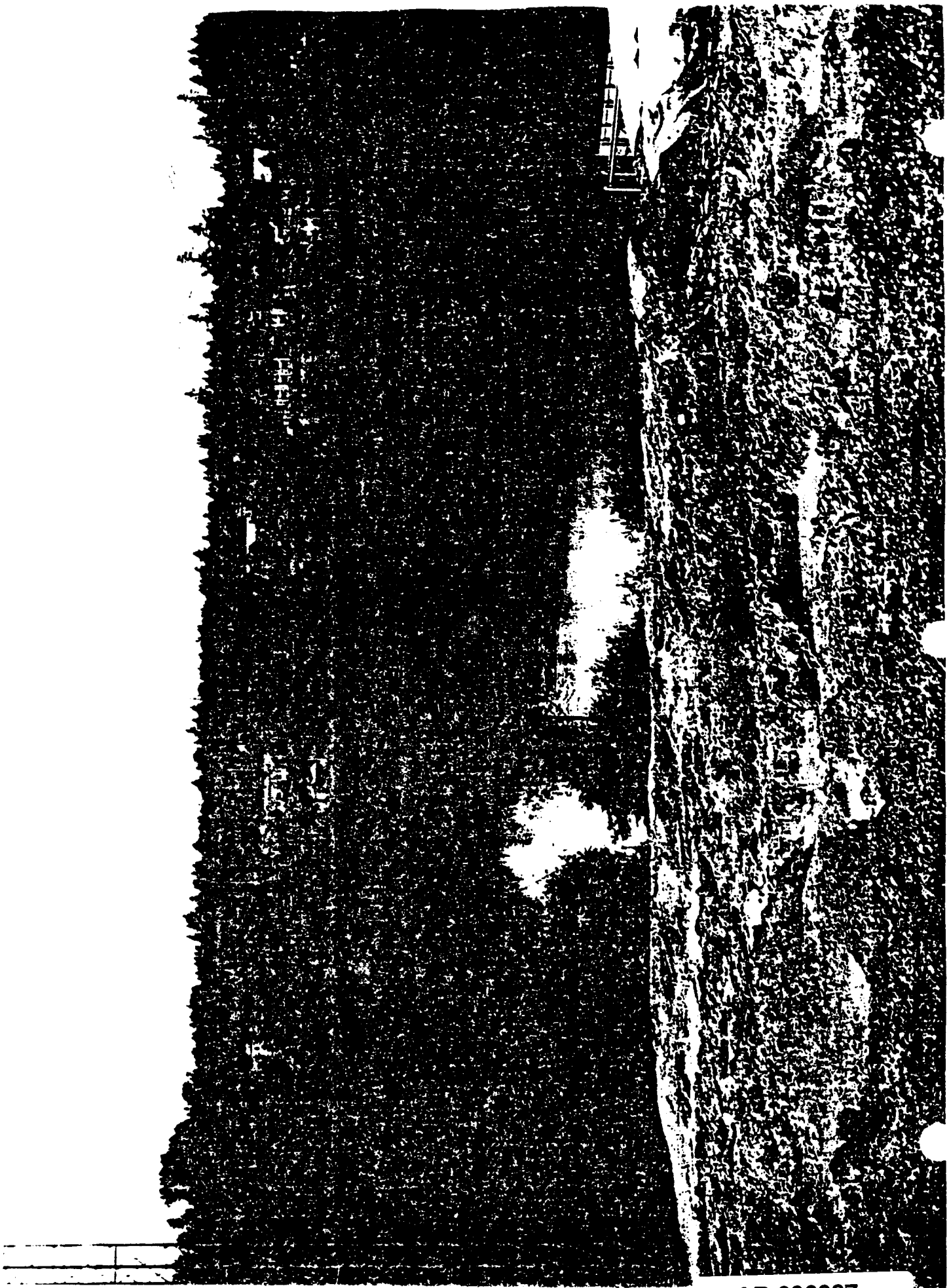
This picture shows the pond below the vault. Intentional flooding - sedimentation in pond. Natural wetlands contamination

Kathleen
Quong-Vermeire
City Councilmember

City of
Normandy Park

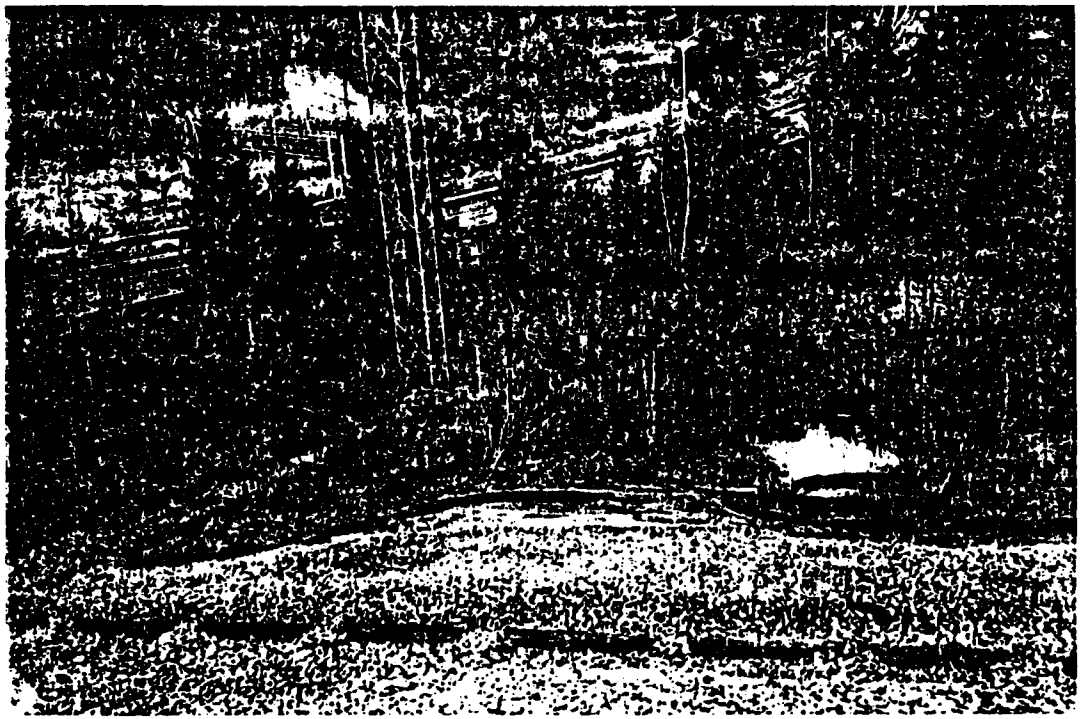
(206) 878-8000
FAX (206) 439-8674
801 S.W. 174th Street
Normandy Park, WA 98166

AR 036086



AR 036087

La Petra Detention Facility 1-20-98



City of Normandy Park

Kathleen Quong-Vermeire
Councilmember

(206) 878-1000
FAX (206) 433-0670
Normandy Park, WA

AR 036088

AR 036089

Lake Reba before
it flows into Muller Creek
and Puget Sound.

AR 036090

Kathleen
Quong-Vermeire
City Councilmember

City of
Normandy Park

(206) 878-8000
FAX (206) 439-8674
801 S.W. 174th Street
Normandy Park, WA 98166

2E-4

Christopher Vance
METROPOLITAN KING COUNTY COUNCIL
District Thirteen

U.S. Army Corps of Engineer Joint Public Hearing - Permit #96-4-02325, Port of Seattle

Thursday, April 9, 1998

Testimony of The Honorable Chris Vance, Vice Chair, Metropolitan King County Council

My name is Jennifer Holms and I am speaking on behalf of Metropolitan King Councilman Chris Vance. Councilman Vance is Vice Chair of the County Council. He also represents the cities of SeaTac, Des Moines and Normandy Park whose citizens will be greatly impacted by the construction of the third runway.

His remarks are as follows:

"I am deeply concerned by the constant attack on Miller and Des Moines Creeks through the activities of the Port of Seattle. With the current emphasis on meeting the challenges posed by the listing of the Chinook salmon under the Endangered Species Act I believe the Corp needs to look with great skepticism upon the Port's application for this permit.

"The Port is already harming Miller and Des Moines Creeks through the release of de-icing chemicals. Even though the Port has a process in place, I have been told that a large percentage of the chemicals are not captured. Our own state Department of Ecology has admitted that this practice by the Port is a major concern.

"Serious environmental harm, such as loss of fish and bird habitat, has occurred. We cannot allow the degradation to continue. If these permits are granted, the watershed around Des Moines and Miller Creeks will suffer further harm. Both creeks have been identified by the county's Central Puget Sound Watershed Forum for enhancement and restoration. However, King County sees no reason to proceed since the Port's process is less than satisfactory.

"I feel that it is imperative that the Corps of Engineers and the Department of Ecology address this issue when they are reviewing the issuance of the Port's permit applications.

"Thank you for this opportunity to testify before you."

Room 1200, King County Courthouse, 516 Third Avenue, Seattle, WA 98104-3272
(206) 296-1013 TTY/TDD (206) 296-1024 FAX (206) 296-0198

Home address: 9615 S. 203rd St., Kent, WA 98031 Home phone: (206) 852-4020

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STATE REPRESENTATIVE
33rd DISTRICT
KAREN KEISER

State of
Washington
House of
Representatives

2E-5

APPROPRIATIONS
EDUCATION
FINANCIAL INSTITUTIONS
& INSURANCE

April 9, 1998

Jonathan Freedman, Project Manager
U.S. Army Corps of Engineers
P.O. Box 3755
Seattle, WA 98124-2255

Dear Mr. Freedman:

I am requesting you formally deny the permit for construction of a third runway at Sea-Tac Airport as submitted by the Port of Seattle at this time. I believe the evidence and concerns presented by the United State Department of Interior and the United States Environmental Protection Agency suggests the Port has a lot more work to do.

I am confident you will hear an echoing refrain from other elected officials and citizens who also point to the glaring problems with the proposed mitigation plan in this permit proposal.

1 I think it is very interesting that the two largest environmental watchdog agencies of the federal government have requested this permit be denied. The message from both the Department of Interior and the EPA is a simple one: the Port plan fails to properly mitigate our environment and on that basis this permit should be denied. More appropriate mitigation examples have been presented by both agencies and these suggestions should be incorporated under a new permit proposal.

2 I would also request one additional stipulation – that the Port be required to include a finance plan for these mitigation proposals. ***We need to know if the Port can afford to do the job correctly before we allow them to dig one hole into our community. You know, when you buy a house, you have to first prove you can afford to make the payments before the developer digs the hole for the foundation of your new house. Why shouldn't taxpayers — the mortgage lenders of this project — not be afforded the same basic information.***

3 While I am not outright opposed to the concept of off-site mitigation, I am outright opposed to it under the Port plan. The Port is proposing to replace 11.5 acres of Highline's wetlands with acreage in Auburn. Both the EPA and Department of Interior note the Port's failure to explore mitigation opportunities within the existing water basins. The bogus charge that a surge in our native bird populations will occur if we replace existing wetlands is just wrong. This ridiculous charge, most likely propelled by the Port's colossal public relations machine, has already been debunked by both the Department of Interior and the EPA. For the record, let me use the words of the Department of Interior:

LEGISLATIVE OFFICE: 321 JOHN L. O'BRIEN BUILDING, PO BOX 40600, OLYMPIA, WA 98504-0600 • (360) 786-7868
TOLL-FREE LEGISLATIVE HOTLINE: 1-800-562-6000 • TDD: 1-800-635-9993
RESIDENCE: (206) 839-8694
PRINTED ON RECYCLED PAPER

> **"The creation of restoration of wetland within 10,000 feet of the active runway would NOT increase wildlife attractions over existing levels but would simply replace part of the habitat which has been destroyed by the project."**

We are not creating the Skagit River Valley, a wildlife refuge, or a bird sanctuary by mitigating Des Moines or Miller creeks. We are maintaining the character of communities and our environment. The fact is the existing wetlands have co-existed with the jets for more than 40 years without incident. I also think it's time to stop insulting the airport community. If you're going to put a damn runway in our backyard, then the Port can damn well restore the wetlands in **OUR** backyard.

I would ask the Corps to require the Port to mitigate the Highline area as logic and our environmental agencies would have it. Again, let me use the words of the environmental experts (Department of Interior):

> "Mitigation located outside the watershed would not benefit wildlife directly impacted by the project. Although the EIS documents state that on-site and off-site mitigation opportunities within the watershed are limited, mitigation sites closer to the impact site ***should be considered further.***" Let me repeat it — ***mitigation sites closer to the impact site should be considered further.*** I believe this means the Port should make an effort to replace wetlands in the Highline community -- not Auburn.

3

The two messages I would like to reaffirm here are this: both the EPA and the Department of Interior -- the two biggest environmental experts in the business -- agree the Port of Seattle DOES NOT adequately mitigate the environment in its permit application for construction of a third runway. And secondly, the Port does not outline how it would pay for these mitigation measures. We need those answers before we can approve any permit.

I believe unless we demand better strategies and ideas, we're not going to get them. I also know that unless we have a vision for our state and its most unique natural treasures, we could someday lose them. Marcus Aurelius, a Roman emperor once said, "That which is not good for the beehive, cannot be good for the bees." This year, the state of Washington was put on notice. We have one year to develop a comprehensive plan to save steelhead, chinook salmon and other fish runs. If we don't the federal government will come in and dictate a plan to us.

In many ways, we are faced with issue of dwindling natural resources when we seek to carve a chunk of land to make way for this runway. Can we afford not to delay this permit without examining less intrusive options? Is this region that bankrupt for a vision, that greedy for a dollar, that we cannot demand that a tree, a river, a salmon or most importantly — a community of people -- receive the same consideration as a couple of out-of-state corporate conglomerates chasing profits? This community of Highline belongs to us, not the Port of Seattle Commission, not the airlines, and with all do respect, not the U.S. Army Corp of Engineers. It's ours, and we should have a very loud voice in what happens to it.

I thank you for your time and consideration.

Sincerely,

Karen Keiser
State Representative
33rd District

KLK:se

JACK METCALF
2D DISTRICT, WASHINGTON

COMMITTEE ON
TRANSPORTATION
AND INFRASTRUCTURE

2E-6

COMMITTEE ON BANKING
AND FINANCIAL SERVICES

CHAIR, REPUBLICAN HOUSING
OPPORTUNITY CAUCUS

Congress of the United States

House of Representatives

Washington, DC 20515–4702

April 20, 1998

Colonel Mike Rigsby, P.E.
District Engineer
4735 East Marginal Way So.
Seattle WA 98124-3755

Dear Colonel Rigsby:

Thank you for the chance to comment on the Port of Seattle's application to fill wetlands at Seattle-Tacoma International Airport in order to complete the Master Plan Update improvements, including building a third runway. In my role as a member of the Aviation Subcommittee of the House Transportation and Infrastructure Committee, I have advocated addressing the needed increase in air capacity throughout the nation, including here in Washington state. Additionally, I have been a staunch supporter of environmental and natural resources protection throughout my political career.

From an environmental point of view, the Port's plan to fill wetlands in order to build the third runway seems responsible. It is my understanding that the Port plans for mitigation go beyond the "letter of the law." I am pleased to know that the mitigation will create 22 acres of high quality wetlands that will be kept natural forever. In addition, the plans to upgrade the creek near the site of the new runway should improve fisheries habitat. While it is always best to locate replacement wetlands in the same drainage basin, placing these properties in Auburn is consistent with the FAA requirement that wetlands not be located within two miles of an active airport. This relocation is appropriate in light of the fact that the Port made a strong effort to find sites within the basin. The city of Auburn's support of the Port's actions is very important and should be a strong positive in your review of the Port's application.

ASHINGTON OFFICE:
510 LONGWORTH HOB
WASHINGTON, DC 20515
(202) 225-2605

EVERETT OFFICE:
2930 WETMORE AVENUE, #901
EVERETT, WA 98201
(425) 252-3188
(800) 562-1385

BELLINGHAM OFFICE:
322 NO. COMMERCIAL #203
BELLINGHAM, WA 98225
(360) 733-4500

PRINTED ON RECYCLED PAPER

While I believe that improving upon an existing facility is much more environmentally acceptable than despoiling a huge tract of land elsewhere in order to build a new airport, this permit application should not be a referendum on the third runway. I urge you to review this permit application based on whether adequate mitigation is being provided. I also request that you make a decision on it in a timely manner. Giving citizens time to review these issues before you make a decision is important and I believe you acted responsibly in extending the comment period on the Port's proposal. It is also critical to let the group that asked for the permit know where they stand as soon as possible.

If you need more information from me before making your decision on this permit, please do not hesitate to contact me or Jeffrey Markey of my staff. Thank you in advance for your consideration.

Sincerely,

Jack Metcalf

Jack Metcalf

Memorandum for the Record

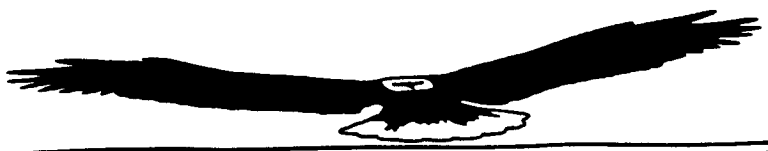
20 April 1998

Phone call from:
Julie Collins, District director for Congresswoman Jennifer Dunn

1. Ms. Collins simply wanted to express Congresswoman Dunn's desire that the permitting process move forward, and to reiterate Congresswoman Dunn's support of the 3rd runway expansion project. She seconds other expressions of support from the City of Auburn, City of Bellevue, and Senator Gorton.

Jonathan Freedman
Project Manager

cc: Dept of Ecology
Submitted 4-9-98
to: Army Corps of Engineers



DETRIMENTS OF THE PROJECT

Destruction of 12 acres of wetlands
Destruction of over 200 acres of foraging area
Increased runoff
Increased pollution in groundwater
Increased risk of pollution entering drinking water aquifers
Increased flooding potential
Increased creek flows
Loss of salmon bearing habitat
Increase risk to migrating salmon from predators
Increase risk of pollution entering creeks
Elimination of noise buffer
Clearing of trees removing water and ground pollution buffer
Clearing of trees removing endangered species habitat
Removing brush increasing flooding potential
More noise in neighborhoods
More air pollution in neighborhoods
Cancer Risk Increase from trucks and planes
Premature death from air pollution
Increased illness from air pollution
Increased asthma in children from air pollution
Loss of recreational lands
Loss of learning time in schools
Loss of learning ability with speech interference
Loss of sleep
Loss of hearing
Higher blood pressure, hypertension, heart disease from excessive noise
Loss of property values
Loss of salability of property
More traffic congestion
Safety hazards on roads with thousands of haul trucks
Safety hazards in the sky with Boeing Field traffic
Safety hazards on the ground with 3rd runway
Increased taxes
Road damage
More particles in our neighborhoods from hauling, digging and dumping of dirt
Dangerous retaining wall plan
Dangerous wellhead and wellfield encroachment
Potential of contaminated fill on watershed
Dangerous wastes in leachate reaching our neighborhoods sooner
Increased utility costs for new water source
Increased costs to clean creeks
Loss of historical markers and properties
Damage to foundations from aircraft related vibration
Loss of neighborhood cohesion
Loss of jobs due to increased illness, sleep deprivation
Biggest dirt hauling project in state history
Most expensive runway in world history
Unmitigated $10 billion in property losses from 2nd runway
Loss of tax base
Loss of businesses
Loss of farmland

BENEFITS OF PROJECT/PURPOSE/NEED

Alleviate bad weather delay (not possible because of dependent nature of runway)
Create some jobs (mostly short-term construction related)
Economic benefit (does not outweigh local losses)
Auburn Green River enhancement

Submitted with VCR tape and tape recording tape

LIST OF ATTACHMENTS AND ENCLOSURES

1. Letter to Mayor Thomasson of Des Moines outlining the need for the Port of Seattle to obtain a mining permit
2. Letter from the Port of Seattle acknowledging the need to obtain a permit for land not contiguous to Port property including borrow areas 1 and 2
3. Letter to Army Corps of Engineers outlining the new discovery of the most carcinogenic compound known and believed to be coming from diesel truck related airborne particulates
4. Two scientific papers attached to above letter
5. Threatened and Endangered species list from Master Plan Final EIS
6. Threatened and Endangered salmon species identified in the Des Moines Creek Basin Plan
7. Cornell University Press Release on detrimental health and learning effects of aircraft noise on children
8. Scientific report by Arline L. Bronzaft, PhD and et al on detrimental health and learning effects of aircraft noise on children (9 pages)
9. Conditional certification of project from Governor Locke

NOTE: Number 3 of page 1 has been violated, 3(e) of page two was not in place at time #3 was violated, MTCA Agreed Order #4 page 2 has been delayed, #5 has never been tested and is new technology that has not worked with the parking lot project (see attachment # for confirmation), paragraph below #5 on page 2 has been violated because NEPA's prohibition on piecemealing of projects has occurred with filling of wetlands at RSA and parking lot, air monitoring reports mentioned on page 2 and 3 has not been completed, but preliminary results indicate a potential for problems. Page 3 indicates this letter constitutes state certification required under 49 U.S.C. 47101 et seq., yet the letter following (#12) from Ecology Director Fitzsimmons says Locke's letter does not constitute state certification.

10. Letter from myself to Governor Locke outlining violations of the certification
11. Letter from FAA attorney Lewis explaining the need for state approval from the Governor
12. Letter from Ecology saying the certification is not state approval
13. Port of Seattle consultant report stating constructed aquifer idea not tested and risky
14. 1985 Master Plan Update saying there would be no new runways at Sea-Tac due to large environmental impact
15. Master Plan map showing 20 acres of wetlands in borrow area #8 identified as site for future warehouses and parking and close proximity of 18 acres of wetlands (Tyee Pond) right next to SASA which total 38 acres of wetlands which will be filled and/or affected by the Master Plan that are not included in the permit application
16. Brazil e-mail saying wetland plan was dropped due to objective, independent, scientific analysis of possible impact
17. Technical expert from San Diego gives reasons wetland relocation plan, (similar to that for Sea-Tac) for local airport seriously flawed
18. Article on cheap Auburn land purchased at 50 to 60 cents on the dollar for wetland mitigation with Port Commissioner quote saying the deal was "too good to pass on."
19. New York paper cartoon asking that planes be moved rather than bird attractants
20. Map showing the location of wildlife preserve JoCo Marsh right at the end of Runway 22 Right.
21. Photo and article regarding bird strikes from a runway FAA continues to use even though proven to be dangerous to safety
22. Article from Hamburg explaining the extraction of higher landing fees for aircraft which pollute the air
23. Article about Evergreen Lake, peat bog and its unmitigated destruction for the second runway.
24. NASA testing article
25. Airports article regarding PRM
26. Letter from Army Corps to Barbara Hinkle discussing sedimentation and hogfuel deposits into wetland 2. This constitutes violation of the certification agreement between the State, Ecology and FAA.
27. List of contaminated sites around Sea-Tac Airport.
28. Letter from Port Commissioner Paige Miller admitting Stage II operations have increased
29. Fleet Mix Report showing greater rise in percentage of Stage II operations as compared to Stage III for 3rd quarter 1995.
30. Letter admitting glycol is not treated by present airport wastewater treatment facility contrary to EIS claim.
31. EIS Response to Comments showing risk of a 21% runway incursion rate increase with third runway
32. EIS Response to Comments showing the lag in airspace which would be required from Boeing Field traffic with third runway
33. State law requiring engine maintenance and testing better located at remote sites which makes Moses Lake Airport not only a better alternative but a state mandated alternative to construction of SASA.
34. Flight Plan EIS statement that Moses Lake has no nearby wetlands
35. P & D Aviation Team analysis of financial needs of the Master Plan at 3.3 billion dollars
36. Master Plan EIS stating Tyee Pond would be relocated and enlarged as part of SASA.

37. Master Plan EIS note that 4.0 million cubic yards of fill can be removed from area 1 and that the totals for areas 1-4 equal nearly 9 million cubic yards of borrow material

38. Letter from P & D Aviation Team saying that no wetlands would be affected if a dependent runway were to be built at Sea-Tac Airport. I believe this letter is typical of the kinds of manipulations that have gone on throughout the years. P & D Aviation is here making a comparison between alternative airport developments and indicating that Sea-Tac may be a more desireable alternative because no wetlands would be affected where Paine Field development would affect approximately 35 and Olympia/Black Lake, 36.

March 31, 1998

Army Corps of Engineers
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

Attention: Jonathan Freedman, Project Manager

RE: Comments on Application Reference #96-4-02325 Wetland Fill

These comments are not meant to replace comments previously submitted on this subject by this author, but should be considered independently of them even if some seem duplicative and I would like a response to each concern.

New Information

Borrow Sites/SASA

US EPA has asked that the Corps look for alternatives to mining the area around wetlands located adjacent to borrow areas 1 and 2 and the South Aviation Support Area (SASA). Additionally, the Department of Natural Resources has indicated the Port of Seattle will need to obtain a mining permit to borrow from this area 1 and 2 source. There is mounting opposition to the use of conveyors through Des Moines, as indicated in the recent results of a focus group and public opinion. Conveying dirt through Des Moines Beach Park and Des Moines Creek Park, which might include arsenic contaminated dirt from Maury Island, has not been evaluated in the airport Master Plan EIS. Since this alternative has not been compared to any others, nobody knows what the least impact alternative might be.

Maury Island residents are also opposed to the mining in their area due to the possibility that the underground drinking water aquifers located on and/or near an area designated for mining may become contaminated by surface arsenic if disturbed. The amount of pressure being

AR 036101

placed upon the Port of Seattle to avoid this location and/or look for other off-site areas for fill has created a situation where nobody knows where the dirt will come from, how it will arrive at the designated fill area or what or how the environment might be affected by this massive engineering project and should mandate a detailed plan of action with an EIS outlining specific plans for public and agency review before the Army Corps issues any permit for wetland fill. As of this hearing, nobody really knows what the final wetland impact might or could be since it depends on plans that seem either impossible, under extreme protest or not in compliance with existing law or the public interest. And none of these plans are yet before the appropriate agencies or public for review and comment. Will dirt be barged across Puget Sound? Can a landing be build at Des Moines? Can a conveyor system be built next to the Des Moines Creek? Is a conveyor from another area a more reasonable alternative? Where? How? When? For how long? Will dirt be hauled by truck? From where? Will alternatives to on-site borrow areas be found? Where?

2

Mining the hill in Des Moines? Does it seem like it might work? Besides EPA's adverse comments to the contrary of the above, what will the removal of 9 million cubic yards of fill from borrow area 1 and 2 do to the area? Since the line for this borrow area is drawn so close to large wetlands located just to the west, what will be the fate of or impact to these wetlands should open cuts right next to wetlands and 40 to 60 feet deep be gouged out of the earth?

3

Haul Trucks

Enclosed is a copy of a letter sent to you and others on March 31, 1998 which outlines a need for an additional analysis of community cancer risk increases which may occur as a direct result of haul trucks in our neighborhoods.

4

Endangered Species Listing

Several species of salmon are candidates for listing as endangered. There are at least three that have been found in Miller and Des Moines Creeks, Chum, Cutthroat, and Chinook (see

5

enclosed). Destroying the wetlands from around the basins where these creeks and habitat exist will adversely affect these salmon. Additionally, eliminating over 200 acres of foraging areas for other threatened or endangered species such as the Bald Eagle, Peregrine Falcon and Red Tailed Hawk, will endanger the survival of these birds which have been identified within the project area. 5

The EIS

Please do not think that just because agencies such as the FAA have approved the EIS, that it is a sound, reasonable document. The FAA co-authored it, why wouldn't they approve of it? Please do not assume that because several million dollars have been spent on writing the EIS that it must be good. Several sections had to be re-written, it received over 2,500 pages of adverse comments from various citizens, groups, cities, officials, agencies, etc., and the EPA gave the draft EIS an EO-2 rating ("Environmental Objections, Lack of Data"). Please do not feel assured that all reasonable alternatives have been researched, they have not. It should be readily obvious to the Corps staff that there has to be a better alternative with less impact than expanding Sea-Tac when the scope and magnitude of environmental effects of the Third Runway project are unprecedented in state history. Among hundreds of viable objections to expanding Sea-Tac, filling one of the most densely populated valleys in the state with 27+ million cubic yards of fill dirt, more than was moved for the Grand Coulee Project, the largest to date in state history, and an airport waste discharge permit that received slightly less comments than that of Hanford Nuclear Plant (the most ever for an NPDES) and I have not mentioned that this single runway is billed as the most expensive runway in US and possibly world history, nearly ***any alternative*** seems to be a better alternative if all this is just to alleviate ***"bad weather delay"*** and precipitate the same number of operations with or without the project!!! 6

Do not assume that because the FAA and Port of Seattle are so powerful that your agency must bow to their desires. Reason and logic will eventually prevail. Public awareness of the 7

AR 036103

infeasibility of expanding this airport has continued to grow since the proposal began. Much of that opposition comes from the many people who have experienced the unfulfilled promises made by the Port in the past to mitigate the effects of the second runway. Local schoolchildren have continued to suffer loss of their educational opportunities due to unmitigated noise impacts directly related to over 25 years of procrastination on insulating schools and manipulation of data by the Port of Seattle on the true effects of the noise from the second runway on Highline Schools! Two recent Cornell University Studies confirm the detrimental effects of aircraft noise on children's opportunity to learn and communicate properly. Recent studies point to the possibility that normal skills may never be developed by these children because early communication experiences are impaired by aircraft noise.

7

Sea-Tac Airport is a constrained facility with no room to grow. The costs of the project are enormous and King County taxpayers and ratepayers will most likely be saddled with a huge tax bill from the Port's taxing authority to cover the debt, overruns and damage of the third runway project. Among some of the most unreasonable and ridiculous assumptions and manipulations of data in the EIS:

8

1) The Port claims in the EIS that noise is going down and will continue to decrease with a third runway (operations of Stage II aircraft, the noisiest, have been increasing for over a year and an expert panel independently appointed by our state concluded in 1994 that the Port and its data failed to show noise is being reduced or mitigated and that it may be increasing incrementally as much as the Port claims it is going down)

9

2) Air pollution impacts with a third runway will be less than without a runway (this conclusion must assume that any airplane that uses the new runway will **not** emit **any** air pollution and will even suck away some of the existing air pollution. Totally defies logic especially when you look at the data and see that a single jet airplane produces several air pollutants at rates equaling that of tens of thousands of cars[1])

10

[1] See EDMS model 944 for emission factors and L/T/O

AR 036104

3) Assumes the threatened and endangered species in the project area will be unharmed by the third runway project even though the project proposes to destroy foraging area, alter creeks and eliminate critical habitat areas of two major watersheds (a study area line was drawn on a map in the Master Plan draft EIS in a perfect square until it reached a bald eagles nest at Angle Lake and then the line of the map curved inward to avoid including it in the graphic even though SASA will be located almost across the street from this nest!)

11

12

4) Concludes there are no cumulative effects or that the cumulative effects of many area projects cannot be analyzed due to lack of data (many of the projects that EPA asked be cumulatively analyzed are Port of Seattle proposals or co-proposals such as South Access Roadway and SASA where cumulative effects are in the Port's own previous planning documents, [see #3 above as to one example of where cumulative effects would be helpful, i.e., SASA EIS was written before the Angle Lake Bald Eagles nest was identified and information on effects of SASA combined with a third runway were left out of the Master Plan EIS])

13

5) Purpose and need section of the EIS relies on bad-weather delay to justify building the most expensive runway in US history even though the new runway is planned to be too close to the existing runways to <u>increase</u> the airports ability to handle limited visibility landings

14

6) Makes a case that the no-build option will be more environmentally damaging than the build option even though many assumptions in modeling of roads, traffic, air, water, ground pollution, etc., in the build option have impacts that experts have proven to be either underestimated, wrong, unjustifiable, or were never considered and that the no-build option assumptions of impacts were illogical and vastly overstated (see Envirometrics and Smith Engineering summary of reports in Cutler & Stanfield comments on SEIS regarding traffic assumptions and modeling, for example, in the build option traffic analysis, idling cars in queue just mysteriously

15

disappeared from busy intersections but were left in the analysis for the do-nothing option).

The FAA is being sued because the data and analysis presented in the EIS is not accurate, is considered to violate a number of federal regulations, including but not limited to the Clean Air and Water Acts, Threatened and Endangered Species Acts, Historical Properties, 4-F Lands, NEPA for Cumulative Impacts, Multiple Project Impacts, numerous procedural requirements, among others and the Conformity Provisions of the Clean Air Act.

The SEIS

16

The FAA and Port of Seattle originally claimed that the third runway would not add capacity but changed their figures in the Supplemental EIS because FAA forecast figures were higher than previously anticipated, however, they failed to correct their models and estimates of impacts. For instance, air pollution figures for arriving aircraft went down when an additional 14,000 aircraft were added. The SEIS claimed the reason for this was due to the fact that a new runway would alleviate delay, therefore reducing ground level emissions. This assumption is preposterous and impossible and the EIS admitted this itself. Airborne aircraft in holding patterns miles from the study area are the operations delayed by bad-weather in the no-build option, not arriving aircraft that have landed or departing aircraft in a queue! These airborne aircraft have no ground level emission impact. Added to this lunacy is the fact that the third runway in the build option will be as constrained as the second when aircraft are arriving and with 14,000 more airplanes, it could actually add to delay on the ground rather than alleviate delay in the skies due to crossing of two active runways! To add to this spectacle, the SEIS never estimated emissions associated with the third runway such as additional taxi time for aircraft that must travel over 2,500 feet (nearly 1/2 a mile) to and from the terminal, or emissions from aircraft that must wait between the first and second runway to cross after landing, or the emissions associated with the 14,000 mostly jet aircraft which pollute at some positive rate, not a

negative one! To summarize, in the build option, the third runway will do nothing to alleviate bad-weather delay, therefore, will not reduce ground level emissions. The FAA and Port claim it will reduce emissions but the data THEY CREATED to verify this weird logic is terribly flawed. The no-build option will have the same amount or less emissions as the build option, not more, because delay will occur in the sky miles from the airport and far less aircraft will be able to use the facility.

16

Two European airports have recently instituted higher landing fees and capacity caps directly due to higher air pollution impacts of capacity increases. Swiss and German officials have recognized that recently, more aircraft operations at the local airports are causing an increase in air pollution effects and a risk to the local communities. Their attention, unlike the local situation, seems to focus more on public health and an effort to achieve a balance between economics and environment. Locally, economics seems to be the only consideration, but the reality is that air pollution which causes increases in mortality and morbidity rates to local communities is a tremendous liability to economic viability as is evidenced in numerous reports published studying the effects of lowering air pollution standards finding that economic benefits of industry does not outweigh costs of lives, work days and health lost. (see American Lung Association Reports)

17

According to many engineers and other water experts which are part of a large network of citizen activists who are opposed to a third runway, the water, wetland, runoff, floodplain and ground/water pollution issues associated with the EIS are at least as GROSSLY underestimated as the air quality section. If this is true, it is no wonder that the Governor would not originally certify the air or water quality of the project but deferred it to Ecology, whereby, Ecology wrote a several page summary of **conditional** certification requirements. And although the air quality information I have provided above, does not directly relate to the wetland fill application the Corps is presently considering, I believe it is an example of why the purpose and need section of the EIS cannot be trusted or justified.

18

AR 036107

Airports across the country which have three active runways have much higher numbers of annual aircraft movements than what the FAA and Port have admitted. Atlanta Hartsfield, for example, has a small land mass similar to that of Sea-Tac with closely spaced runways, but nearly 800,000 annual operations, almost 300,000 more than what the Master Plan EIS originally predicted. If the potential aircraft operational capacity of Sea-Tac with a third runway are nearly 300,000 more than the numbers the EIS has used, the impacts of the expanded facility will be far greater than those estimated thus far.

19

I do not believe the FAA and Port have been truthful in providing full disclosure about the potential for the expanded Sea-Tac facility. One example is the FAA Advisory Circular where it talks of seperation for dual simultaneous landings at 4,300 feet. That same Advisory Circular that does NOT ALLOW dual simultaneous landings at 2,500 feet (third runway separation) allows dual simultaneous DEPARTURES at exactly 2,500 feet seperation! NOWHERE HAVE I SEEN THE FAA AND PORT EVER DISCUSS THIS POSSIBILITY even though FAA's OWN technical document directly allows this. If dual simultaneous departures will occur over our neighborhoods and schools, this would add tremendously to the noise levels and increase the noise footprint outward to the east and west.

20

Alternatives to the Proposed Action

Previous studies have shown that there are alternatives to the expansion at Sea-Tac, and that adding a third runway would be the most environmentally unfeasible of all the other alternatives previously outlined by officials and agencies (see 1985 EIS where the Port of Seattle indicated that there would be no new runways at Sea-Tac due to the enormous environmental consequences and the investment in the existing airfield). A Puget Sound Regional Council (PSRC) Resolution mandated a vigorous search of alternative sites for a new airport but this process was abandoned for purely political reasons.

21

AR 036108

Although the PSRC discontinued its search for alternative sites, it is not because none could be found, but pressure from Snohonish County officials and community members discounted Paine Field and similar activities took other viable alternative sites off the list. Paine Field in Everett has received FAA funds, is a viable reliever airport, has an FAR 150 program, has more VFR days per year than Sea-Tac, has tenants and potential tenants willing to use it and is part of the National Air Transport System. Rather than rely on prudence and sound judgement however, the PSRC bowed to political pressure and decided to put a third runway at Sea-Tac, despite the unmitigated effects of the second runway here and even more vigorous community and jurisdictional opposition than was evident at Paine Field. A combination of use of the existing 15 IFR reliever runways in the region, Port of Moses Lake Airport which has one of the longest runways in the country, far less bad-weather delay problems than Sea-Tac (over 180 bad weather days per year according to their data where visibility is poor) with over 300 VFR (visual flight rules as compared to bad-weather instrument landings, [IFR]) days per year, wants the maintenance and cargo business Sea-Tac is monopolizing, could easily sustain the regional capacity problem into the next century while more objective politicians of the future search for a new airport site.

2

Another example of political manipulation of an objective vigorous alternative search was when a politician from Tenino brought an available area for a new airport site to the PSRC Board of Directors in 1992. During this meeting, Mr. Jacobsen pointed out that nearly 50,000 acres of undeveloped land with I-5 directly to the west and Burlington Northern rail lines directly to the east was available for a new airport. This land mass located near the state capitol would also be a prime site for a high-speed rail link and would have room for future growth with no community opposition (since no communities were located within the area). Mitigation costs would be small, the initial investment would be less than expanding Sea-Tac. However, the PSRC Board refused to listen to Mr. Jacobsen and he was quickly ushered from the room. Among members of the PSRC who heard his presentation was then King County Executive Gary

AR 036109

Locke. Snohomish and Pierce County executives Bob Drewel and Doug Southerland were both vigorously opposed to siting a new airport in their districts, as would be expected since both were very familiar with the terrible environmental consequences, especially Mr. Southerland who had once been City Manager of the city of SeaTac. Both were opposed to allowing airport development to go anywhere besides to the Port of Seattle.

21

Viable alternatives to the proposed action must include the no-action alternative. This alternative was treated in the EIS as the most undesireable purely for economic reasons. The EIS overstated the costs of fuel and delay while underestimating the environmental impacts of expansion. The no-action is what was preferred by most commentors. People who live in the area are very familiar with the terrible environmental effects that building the second runway had on the local communities, schools, environment, watershed, floodplain, air quality and etc. We know all too well that the third runway will have a far greater impact than that claimed in the EIS. Bad-weather restraints on a crowded Sea-Tac Airport with two runways happen frequently in the existing condition according to the Port's own information. The future will not bring more bad weather to the airport area, nor is anyone forced to assume that all the traffic being predicted to escalate in the future, will actually occur or have to land at Sea-Tac.

22

The restraints on the existing airport in the future assumes more aircraft traffic. The airport with two runways will accommodate somewhat less traffic (only 14,000 less aircraft per year) than predicted. Much of the future predictions of passenger, cargo and air transport capacity increases are based upon past increases which may have been a trend come and gone. The future predictions may not come true or at least, if 14,000 less than predicted, the third runway becomes unnecessary. Fourteen thousand operations, percentage wise a minor amount of operations in comparison to airport runways across the country being built to accommodate 100,000 annual movements does not make sense for the price. Simple division with two runways has traffic at about 200,000 each with allegedly, the ability to handle another 100,000. The destruction of the local wetlands may prove to have been a terrible mistake as other airports

23

become busier due to real constraints on Sea-Tac, economic interests spread more evenly around the state and/or as other airports become more competitive in acquiring carriers.

Operations/Purpose and Need

The third runway is a dependent runway meaning that arriving aircraft must be staggered on their approach and cannot land simultaneously during poor weather. This is the exact same constraint of the present airport. Current FAA regulations require a 4,300 foot separation between parallel runways for dual simultaneous approach (FAA Advisory Circular 5300/13 #4). The third runway is planned at a maximum of 2,500 foot separation from the furthest runway. The inability of planes to land simultaneously during poor weather is allegedly causing the "bad weather delay" the EIS claimed as the reason for the need of an additional runway. Since aircraft cannot arrive NOW simultaneously and will not be able to arrive with a third runway simultaneously, it is therefore, logical to assume the third runway has no real purpose. It is no wonder that the draft and final EIS claimed the same number of operations with or without a third runway.

24

FAA forecast numbers, being higher than previously thought, was given as the reason for writing a supplemental analysis (SEIS), the original delay in issuance of FAA's Record of Decision on the final EIS was possibly the deciding factor in their admission of more operations at Sea-Tac. Please keep in mind that it took a public expense of millions of dollars for attorneys, thousands of pages of expert comments, years of diligence in learning the data on the part of community groups, agencies, cities, the county and hundreds of individual citizens, some who spent vast personal monies and made sacrifices of time, jobs and family to write comments that delayed the ROD and ultimately compelled the FAA and Port of Seattle to add any capacity to their original analysis. This giant effort precipitated the writing of the Supplemental Environmental Impact Statement (SEIS). In light of this kind of diligence of so many to save their community, is it prudent or even logical for the Port to spend 1.7 billion on a runway that

25

AR 036111

has little purpose and no justifiable need? Is it wise to fill a valley and relocate 12 acres of wetlands for a runway that is limited and constrained in its use when there are 15 runways in the region that ARE ALREADY BUILT and underutilized?

Wetlands

The Port and FAA have claimed in the EIS that the wetlands to be filled and relocated to Auburn are of low functional value. I am very concerned that this assertion comes from the same types of erroneous data used to prove that 14,000 airplanes don't pollute the air. I also believe the assertion that these wetlands are of low functional value has no basis in any documentation or demonstration. Only when these wetlands are filled and paved over will anyone really know what their value was since no objective and comprehensive studies have yet been conducted. I have seen engineering reports from the Port of Seattle contradict themselves. I have seen consultants hired by the Port come and go. It appears to me that site surveys have been biased in favor of the build alternative. For instance, in 1992 P & D Aviation Team estimated that over 100 acres of wetlands would be directly or indirectly affected by the Third Runway Project. In 1993, another consultant estimated that 30 wetland acres would be filled. In 1995, the draft EIS indicated 9.5 acres would be filled and in 1997, the SEIS states something different. Presently, EPA and The Department of Commerce have pointed out that there are still more discrepancies in numbers of acres between the permit and EIS.

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1) Is the Corps concerned about the numerous differing estimates?
2) Does the Corps have oversight on affected wetlands, whether directly or indirectly affected? The permit says nothing about effects to wetlands other than filling them in even though previous documents have indicated that over 30 wetlands out of 53 would be affected, some filled, others receiving impacts from the project. Please comment on these discrepancies.
3) What constitutes an effect which needs Corps approval?

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a) Partial filling?

27 b) Any effect?

c) Increased water/runoff to unfilled wetlands?

4) Would the Corps be required to permit all affected acres or oversee the fill project if 100 acres of wetlands might be impacted? If 30 acres might be affected? According to the letter from Jack Kennedy dated 14, August 1995, he states:

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"4. Wetland data, Section 11 of the first volume of the EIS, lists wetlands and areas, but is silent on impacts- other than elimination—and the rest of the kinds of information we will need to make a permit decision."

29 Has the Corps received information on all the wetlands which MIGHT BE OR COULD BE IMPACTED BY THE THIRD RUNWAY PROJECT, as P & D Aviation said it would be over 100 acres and another consultant at a later date said 30?

When the Port of Seattle built the parking lot near the City of Seattle wellfield protection area, they did so without an Environmental Impact Statement. Citizens and other interested 30 parties never had an opportunity to review and comment on this project and subsequently, many unanticipated problems occurred. One such occurrence was when exposed soil filled Miller Creek with sediment during a time when salmon were attempting to enter the stream to spawn. The timing of building the parking lot was never an issue but should have been overseen by an agency familiar with fish migration events. Also, part of a wetland was affected with sediment. 31 The Corps came to the site and examined the wetland and determined that it was of little consequence. Could the presence of sediment in the wetland have triggered closer scrutiny of this project which might have prevented the sediment events into Lake Reba and Miller Creek? Since that time, several citizens have looked closely at the area where two small wetlands used to be located at or near this project site and have not been able to find them. It appears to us that these two wetlands identified in the Master Plan EIS may have been filled. Does the Corps have

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the ability or motivation to identify whether they are still there? And shouldn't this project have been halted and included in the entire wetland permit since it was part of the overall development? The Port also filled two small wetlands at the south end of the airport for the Runway Safety Area project and did so under an old nationwide 26 permit EVEN THOUGH BOTH PROJECTS, THE RSA AND PARKING LOT, were listed in the EIS and should have been included in the analysis **IN THAT DOCUMENT** FOR CUMULATIVE IMPACTS. Why has the Corps allowed this piecemealing of projects? This type of incremental building gives the appearance of minimal impacts for each piece of the total Master Plan, a technique which does not allow appropriate agencies or the public to see the entire effect of overall development. Does the Corps have any regard for NEPA and its prohibition on piecemealing in this case?

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I am very concerned that much information, not unlike the parking lot paperwork, which mostly did not exist, about wetlands in the area of the Third Runway Project and SASA has been buried, manipulated, falsified or has been misleading when presented to the public. For instance, the SASA EIS identified an 18 acre pond and associated wetlands to be filled greater than the present acres now in application. If this acreage were added to that filled for the RSA and other projects, the total affected wetland impact would be much greater than the present application indicates. Additionally, the SASA EIS also developed the plans to relocate over 3,000 feet of Des Moines Creek, including the headwaters and a section which would require RECHANNELLING! (Is rechanneling a creek or eliminating the headwaters legal?) I have not seen this mentioned anywhere in the engineering reports from the Port for the Third Runway Project or in the current application. Is the Corps' responsibility as a permitting agency operating to ensure that compliance with federal regulations are adhered to, to inspect and discover these discrepancies in these numerous documents BEFORE PROCEEDING WITH A PERMIT? I believe there is far too much contradictory information to not mandate such a discovery process.

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Cumulative Impacts

Under NEPA, the agency proposing the development must consider cumulative impacts and since the FAA is a federal agency, they are obligated to consider all reasonably foreseeable effects whether directly or indirectly related to their project, or within the project area. There are a number of other projects planned for the areas to the north and south of the airport which have not been considered in the Corps permit but should be taken into consideration for cumulative wetland effects which WILL HAVE an affect on more local wetlands than those identified in the present Third Runway EIS:

1) Area Borrow Sources; Sites 1 and 2 are located near a wellfield for Highline Water District. Also nearby are a number of wetlands. The amount of fill proposed for removal (9 million cubic yards) could effectively remove the entire hill and **WOULD HAVE** a direct effect on several acres of wetlands, Des Moines Creek and the wellfield all located at this site but not thoroughly discussed in the application. Although the cut areas on the map included in the EIS by the Port of Seattle appears to avoid wetlands to the west near borrow areas 1 and 2, these wetlands **WILL BE AFFECTED** by borrow from this area since the borrow plan intends to leave 40 foot deep cuts right next to them!

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2) Area Borrow Sources; Sites 5 and 8 are also located near and on 18 acres of wetlands and a City of Seattle wellfield protection area. The Port has built a parking lot on one of these borrow sources which had two small wetlands located in its midst. However, the other remaining site which contains the 18 acres of wetlands is not included in the application the Corps has received from the Port even though the Port has proposed **WAREHOUSES AND ADDITIONAL PARKING FOR THIS SITE AS PART OF THEIR MASTER PLAN DEVELOPMENT ACTIONS!**
3) SASA EIS indicated an impact to Des Moines Creek; Filling 18 acres of wetlands, rechannelling Des Moines Creek affecting or diminishing Des Moines Creek headwaters, redirecting over 3,000 feet of the creek. SASA EIS is an unfinished

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document. Essentially, without proper analysis of 4-F Lands and proof of conformance with the Clean Water and Air Acts, it must be rewritten. Since it was prepared when the area was in nonattainment for CO and Ozone but did not have an estimate of emissions included in its text because the authors (FAA and Port of Seattle) claimed they must identify a tenant before reasonable analysis could be conducted, there is now no way to know cumulative effects. The FAA is REQUIRED by the Clean Air Act and Conformity Provisions of the Clean Air Act to model emissions in their EIS for pollutants which are classified as nonattainment or maintenance. The area where SASA will be located is still classified as maintenance for carbon monoxide and ozone. None of the true effects of SASA air, water, ground, floodplain, groundwater, noise pollution or numerous other environmental impacts have been added to the current Third Runway EIS evaluation to estimate or know total "cumulative" impacts. In several sections of the SASA EIS, there is mention of mitigation that "might" or "could" offset impacts to the local community, watershed, stream, etc. One such inference is a "hush house" facility to quiet noise of engine run-ups. SASA's EIS says the Port will consider it, but never commits to anything. This is the same situation with building a new IWS for SASA. The Port again says in the SASA EIS that an additional IWS would be needed, but never commits to it. The engineering design and construction of relocated Des Moines Creek in the SASA EIS is vague and unclear at best. On one hand, it appears that this relocation must be completed prior to any construction to determine its effectiveness, but on the other hand, the RSA extension which was part of the SASA EIS and part of the SASA construction to be completed AFTER redirecting Des Moines Creek, has ALREADY BEEN CONSTRUCTED! Additionally, the Master Plan and SASA propose to extend the existing easternmost runway by another 600 feet besides the 500 foot extension of the RSA already completed. What is the effect on the Des Moines Creek watershed and wetlands from this project? I haven't seen it mentioned anywhere. Considering much of the required work for an EIS is missing from the

SASA EIS, it would be virtually impossible to know the total aggregate effects on the human and natural environment once built. The Army Corps should require this more accurate cumulative analysis of the SASA project combined with the third runway analysis BEFORE issuing a permit for wetland fill.

4) 509/South Access Roadway Project; is located at the south end of the airport with two major State Routes to join each other and ultimately, I-5. Located on either side of SASA, the two new roadways would fill over 10 acres of wetlands and deposit large volumes of fill where a bridge must be built over South 188th and a tunnel created for SASA's land bridge. This state route would also add several acres of impervious surface to this Des Moines Creek drainage basin.

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5) 28th/24th Avenue Arterial Project; proposed by the City of SeaTac would connect Air Cargo Road to a thoroughfare leading south of the airport. The EIS for this project is incomplete and does not estimate environmental consequences of impervious surface, groundwater, water runoff, etc.

6) Alaska Flight Training Center; a project the Port of Seattle has mentioned in some of their previous planning documents but is now presently obscured from public scrutiny. I have not seen an EIS and I do not know how much fill and/or impact would occur from building this facility next to SASA.

Functional Wetland Value

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Although the Port claims the wetlands to be relocated are of little functional value, there is no way to know this unless a thorough, objective, scientific environmental study is conducted. When there was a question recently in Brazil whether the dredging of a local waterway could constitute an environmental threat to nearby wetlands which are considered an important estuary, a team of scientific environmental experts were called in to investigate. The team then agreed that the adverse consequences of lowering the water level in the canal could cause real long term unavoidable effects to the wetlands and the project was halted. Allowing the Port to

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determine the value of the local wetlands is like allowing the dredging crew in Brazil, who will be making millions of dollars in revenue, to decide (see enclosed).

An EIR issued for an airport expansion in San Diego has similarly recommended an alternative requiring relocation and/or alteration of local wetlands. An engineer who commented on the plan saw many of the same flaws in the EIR analysis as local citizens have found with the Sea-Tac EIS. He found that the engineering design and estimation of impacts of filling in wetlands and affects to vernal pools associated with those wetlands was seriously flawed and that the airport had chosen a more environmentally damaging alternative among alternatives considered. He also found that there were other less environmentally damaging alternatives that had not been considered in the analysis (see enclosed).

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The Puget Sound coastal area which receives water from both Des Moines and Miller Creeks and their tributaries is one of the top 13 in the world of estuarial significance. Altering the wetlands and creeks could have a MAJOR effect on the ecosystem, many animals, fish and other aquatic life which depend on these creeks. The present trees, shrubs and especially wetlands, provide a buffer against pollution, leachate, flood water, sediment and many other things. Removing the wetlands and vegetation will not only increase the likelihood of contamination reaching our drinking water supply, the local creeks, Puget Sound and our yards, but will also remove a buffer against noise and air pollution as well. The present wetlands, even if thought to be of low functional value by the Port, are of great importance if they are a natural retention and filter for flooding and pollution. Only the loss of them will show how important they really are to the local environment. But once they are gone, if the losses to local communities and the environment are great, someone must be responsible for the lack of data generated by responsible agencies and officials who participated in this destruction.

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Environmental problems associated with the impervious surface added for the Parking Lot project were unforseen until the project was well underway. According to Port of Seattle Commission meeting records, an additional one half million dollars was spent over budget to

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remediate environmental damage. And an additional 1.2 million is planned to help more properly engineer future projects to avoid these environmental consequences. However, these consequences would have been known had a proper, objective scientific study been conducted prior to construction. Exposed soils lead to sediment and additional runoff and with the project located on a hill directly above Lake Reba and Miller Creek, it would have been no small task to guess potential problems such as the sedimentation of this lake and creek.

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Additionally, the city of Seattle Water Department required a geological study of the wellfield prior to construction of the parking lot. The Port of Seattle submitted a study that gave the impression that the impermeable underlying layer of glacial till would protect the underground water resource. However, the Port of Seattle commissioned study again relied on data supplied to that consultant by the Port of Seattle and assumed the stony layer was impermeable when in fact, it is sponge in many places and has holes in it from test well borings in others.

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Presently, brush and trees are being cleared from the wooded area to the west of the airport. Many people have noticed a tremendous increase in dead wild animals on adjacent streets. Among the animals which live in this area, hawks, bald eagles and spotted frogs have been identified in the Port of Seattle EIS. These types of animals are listed as threatened and endangered species. The functional value of wetlands located in this area, besides controlling flooding and runoff as a natural shelf to retain water, is to support this habitat. Now that the Port is engaged in clearing, BEFORE A WETLAND PERMIT IS ISSUED and conditioned, much of the value of the area is already being lost forever!!!

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It also appears that with just the two projects the Port has nearly completed, the Runway Safety Area at the south end of the airport, and the Parking Lot at the north end, the water table has already changed. A spring came out of the ground and appeared to crews that were called in to be a broken water main. This spring washed soils downhill and added to sediment in Miller

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AR 036119

Creek and Lake Reba. Crews were called in to control this problem. Nobody yet knows how long the controls will have to be in place, but chemicals have to be added to the water that is now being pumped from Lake Reba and hauled away in tanker trucks to stabilize the sediment. This will be a tremendous expense if it must be continued long-term.

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Part of First Avenue South was washed away by Miller Creek once 500,000 cubic yards of fill dirt was added to the Runway Safety Area (RSA) last year which is located almost directly to the east of where the roadway problem occurred. This is another project which had a Designation of Nonsignificance (DNS) by the Port of Seattle. The repair of First Avenue South cost over 1 million dollars and the city of Normandy Park was responsible for this although the environmental problem probably had nothing to do with any work they had done in the area. The RSA project DNS stated that the additional water created by the impervious surface and fill would "sheet off the runway" and had no particular controls built into the plan for all this extra impervious surface, exposed soils, removal of brush and trees and all this fill dirt added directly above Des Moines Creek and basin. However, it is apparent that heavy rains are causing an enormous amount of water to accumulate in Tyee Golf Course directly adjacent to the RSA to the west. In case the Corps is unaware, Tyee Pond provides a tremendous amount of water retention and SASA proposes to eliminate not only the Golf Course, but the entire lowland with additional millions of cubic yards of fill dirt which will be needed to bring the area up to level grade with the present easternmost runway.

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Where is the fill requirements report for the SASA? How much fill will SASA and 509/South Access projects need combined? How much TOTAL when added to the third runway fill? How much soft-soils need to be excavated for SASA, 509 and the third runway projects combined? How many wetlands will be filled, affected or partially filled for SASA, the RSA's, Parking Lot, Warehouses and Parking (north of the airport identified as borrow area 8), borrow areas, 509/South Access, Alaska Flight Center, runway extension, Auburn relocation and the third runway area? How much total impervious surfaces will be added for all the above? How

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much floodplain control will be needed for this plateau once the total acres of impervious surfaces are added above two watersheds? We already have a problem controlling the water with the little bit that has been done so far, what will happen if 1,000 times this is done to our area with a third runway project, other projects and associated construction fill? 46

Site Survey

The Corps has indicated there are a number of wetlands they have not yet identified with on-site inspections because they are on private property. The Pumpkin Patch, once a private farm, now purchased or in the process of being purchased by the Port of Seattle is a wetland that has not been previously identified as a wetland. The Port has plans to pave over some or much of this wetland area (this may be a rumor, but many Port plans remain in total obscurity until underway) and create an equipment storage and staging area for construction of the third runway. Some people who have lived in the area for decades, have remarked that this very wet land probably could not support the equipment). The Corps should immediately inspect this area and determine its wetland qualities before the Port begins the any work. 47

The Corps should wait until the Port of Seattle owns all the property to be filled on the west side of the airport, much which is presently private property belonging to single family homeowners and may contain more acreage of wetlands not previously identified. The Corps can then have the opportunity to do the necessary site visits to investigate this peat-bog and wet areas before permitting. I believe this is especially important now, since some preliminary construction work may have altered the water table, creating more wetland area. Local residents believe there are more areas of wetland than those identified by the Port's EIS. 48

The Corps should do a site inspection of the SASA wetland area to be affected along with the 509/South Access configuration and Des Moines Creek area proposed for relocation to become more familiar with the loss which will occur as a result of obscure Master Plan and 49

AR 036121

49 other development actions I have described earlier such as the 600 foot runway extension. Additionally, this 600 foot extension may also need another 500 feet of runway protection zone, totaling 1100 feet from the present east runway terminus which is a current FAA requirement but nowhere discussed in the Master Plan or technical appendices.

Auburn

50 The Port of Seattle purchased the land in Auburn for mitigation of wetlands at a cost of $0.65 on the dollar from a foreclosure. A Port of Seattle commissioner publicly stated that this purchase was too good a deal to pass up. It appears to me that although this is a good deal for the Port, that it was an opportunity to cheaply mitigate wetlands and that the attractiveness of the deal is what was the deciding factor for relocating the wetlands so far away rather than regulation and consideration of the affected watershed. The Corps should not feel compelled to go along with the Port's out-of-basin mitigation plan just because they have already purchased the land in Auburn. The Port frequently purchases land and can sell the land or use it for some more warehouses. The important issue to me is whether there will be any benefit in Burien, Des Moines, SeaTac and Tukwila for relocating wetlands lost here into Auburn and what those benefits will be? Don't the regulations somehow indicate that any local loss should either be equally mitigated locally or enhanced locally? What do we get besides destruction?

Bird Attractants

51 Please see the enclosed taken from an environmental organization in New York regarding bird hazards at Kennedy International. If bird attractants were really a primary concern of the FAA, why would they continue to use Runway 22 Right which terminates right at the edge of a wildlife refuge that is home to many different kinds of birds? Why would the runway still be used after such an accident as that described in the enclosed which was a direct result of birds entering the aircraft engines? FAA is either hypocritical or not forthright in their

AR 036122

information. They desire to eliminate bird attractants but certify airports with known bird attractants. Local airport operators frequently kill any birds that fly near the runways but yet a runway situate at the end of a protected wildlife refuge which is an obvious endangerment to aircraft and therefore, passengers according to FAA's own information, is continually used? Why?

In previous Corps comments, Mr. Jack Kennedy, paraphrasing the FAA advisory circular on bird attractants, states:

> "(2) the FAA will not certify airports that have 'wildlife attractions' within 10,000 feet of the edge of any active runway." He then goes on to say... " 'wildlife attractions' is an unduly broad category that is not synonymous with 'compensatory mitigation wetlands.'"

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It is obvious from the enclosed picture and article regarding Kennedy International Runway 22 Right that the FAA **DOES CERTIFY** AIRPORTS WITH RUNWAYS THAT HAVE "WILDLIFE ATTRACTIONS" WITHIN 10,000 FEET. Sea-Tac has many wildlife attractions within 10,000 feet of active runways, including but not limited to Tyee Pond, dumpsters, the sky, Bow Lake, Lora Lake, Angle Lake, Des Moines, Miller, Gillian, McSorley, Massey, Walker Creeks, and the Puget Sound. I assume Sea-Tac is certified by the FAA to move aircraft in and out. But if bird attractants exist here that pose a danger to aircraft and the advisory circular is true FAA policy, then **why** is it certified? Why is Kennedy's runway 22 Right certified? And why are 50 of the nation's busiest airports that are ALL LOCATED NEAR WATERWAYS certified???

What is the likelihood that the elimination of water bodies around the airport will keep away the kind of birds that pose a safety hazard to departing and arriving aircraft? What types of birds cause safety hazards? Is it small flocks of birds or large individual birds and what types?

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Will flocks of birds no longer fly through the flight paths if all water is eliminated? Is there a guarantee that safety will be enhanced once all the water bodies are removed from around the airport? Is this a feasible argument for removing wetlands?

On a recent television show that I watched, a team of experts were throwing birds into a jet aircraft engine to see what would cause engine trouble. Once they were up to 20 pound turkeys, there seemed to be a problem, but before this, just about any bird and numbers of birds (the team was using primarily chickens and I don't know if they were frozen or thawed) were ground to bits and discharged with no effect. What is the likelihood of 20 pound butterballs flying through the flightpath? Does the Corps have to be an expert in this area to weigh the benefits against the detriment of wetland relocation, or should the Corps just concentrate on the existing law, the historical lack of a problem and common sense?

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Sea-Tac Airport has been where it is for over 50 years without a single plane crash due to bird attractants. The FAA policy seems to be contradictory to history and practice in that over 50 of the nation's busiest airports are located near major bodies of water. Additionally, expansion projects all over the world are adding impervious surfaces and a greater need for water retention near airports and locally, the FAA is allowing the Port to build ponds right at the ends of the runways to hold all the water. There is a huge pond at the south end of the second runway on Port owned property that they have done nothing about for decades. They could relocate it to the east or west to get it away from departing planes, but have not done so. Where is the justification now for removing all the wetlands? On the one hand it appears, that although the airport needs the local streams to use as chemical sewers for glycol, oil, grease, solvents, fecal coliform and numerous other hazardous pollutants, the FAA wants to remove water from around the airports. Maybe the reason the FAA is unsuccessful in removing bird attractants is because airports have never been able to control their pollution problems.

AR 036124

Eight local pilots signed a letter to the FAA asking that other alternatives to expanding Sea-Tac be sought because these pilots believe that tripple parallel runways are a safety hazard. One experienced retired Pan Am Pilot who spoke at a meeting of the CASE organization said that the reason tripple parallels are so dangerous is in the event of an emergency, the aircraft in the middle has nowhere to go if it must veer off the runway, abort a landing or a takeoff. Another safety concern is that each arriving aircraft using the third runway (the draft EIS stated the third runway would accommodate primarily arrivals) must cross two active runways to get to the terminal. The EIS also stated that the third runway would increase "on-the-ground incursion potential by 21%" and that due to airspace overcrowding between Sea-Tac, Boeing Field and Renton Airports, a lag between Boeing Field and Sea-Tac's Third Runway traffic (operations will be over one million per year between the three airports by 2010, more than Chicago's O'Hare, presently the busiest airport in the world) would be required to maintain airspace safety.

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The FAA has contracted with NASA to look at ways to increase capacity and relieve overcrowding of airports predicted to occur in the near future. Two things being tested is reducing minimum spacing distances between arriving and departing aircraft, both for the contrail and wing tip. Warning devices set to go off when aircraft are within 1,000 feet of each other are being reset down to 250 to 500 feet with technology added to the cockpit and airport. Stop and hold short experiments are designed to allow an aircraft to land on a runway and stop in time to not run into a departing aircraft on crossing runways. Many activist groups around the country see these experiments as dangerous and unnecessary. While statistics show that aircraft depart from major airports on average only 40 to 60% full, it seems ridiculous to be finding ways to minimize on safety rather than efficiency of the existing system.

Peat, Aquifer, and Hazardous Waste

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The airport itself is on a plateau that seems to be home to a huge underground water source. Where the water is coming from to travel so close to surface on this plateau, I have no

AR 036125

idea, but the water table is reported to be only 20 feet below surface in some locations. There are three layers of an aquifer located beneath the airport. The first is known to be contaminated with petroleum products and other pollutants associated with airport activity. The amount and type of pollution in each layer of the three underground aquifers is unknown at this time. The second aquifer is believed by some to be free of contamination, but King County Department of Environmental Services believes otherwise and Department of Ecology staff agree that the first (unconfined QVA) and second aquifers are not seperated by an impermeable layer, but note the glacial till that the Port claims provides an adequate protection against leachate chemicals, has many holes in it. The Port of Seattle is working on an Agreed Order with the Department of Ecology to study the underground contamination at the airport. This study has not had enough time to develop and the wetland permit should be delayed until this work is complete. The

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reason I believe it is important to wait until the Agreed Order studies are complete, is this will be the first time that an independent agency has tried to understand the nature, fate and transport of existing airport pollution. Since the airport is on a plateau with so much water nearby and underneath, this contamination (already known to be 30 feet deep in places) can do nothing but travel downward and away on all sides, and eventually (if not already) infiltrate Miller and Des Moines Creeks, Lora, Reba and Tub Lakes and the Puget Sound. Once all the fill is placed for the third runway plateau, it will be a tremendous public expense to dig it up to remediate the contamination although it will be absolutely necessary to do so if the water quality of the aquifers, streams and Puget Sound is in danger. This can only be discovered through allowing the completion of the Agreed Order studies.

Prior to 1970 and the construction of a second runway, a community north of the airport formed a circle of homes around a bog. The families who lived there began to dig out the peat

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which was naturally occurring in the center of the community. As they continued to farm and sell the peat a lake was formed which became known as Evergreen Lake. In 1972, this community was bought out by the Port and the lake was filled to accommodate the second runway. Water retention was built at the base of the airport and to the north. Near the airport to

AR 036126

the north Tub Lake sits within acreage of Class I wetlands. This lake has been rumored to be bottomless. When a crew from King County went in to explore this area, a 20 foot pole sunk into the ground like a straw and the survey was discontinued because there was a concern that a member of the group could sink in and be lost in the peat bog.

There was a man who came to a local meeting of the CASE group who recounted a personal experience of witnessing Tub Lake bubbling with oil. Others believe that cars and other unknowns are buried in the area in the peat bog. Children are now reporting that they have found mutated pollywogs in Tub Lake. Scientists believe that frogs are an environmental indicator of ultimate and soon-to-follow affects of pollution on people. Frogs with three legs and other deformities are showing up at some of the most polluted sites in the world. A recent documentary showed some of these mutations occurring around the Great Lakes, an area known for high levels of toxic contamination for decades. More recently, mutated frogs have been found in 44 states. If mutated frogs are developing in Tub Lake, which was not the case 15 years ago, this could be an indication that high levels of pollutants have reached this lake and should be immediately removed. Allowing much of this area around Tub Lake to be paved over will only make the pollution problems worse, especially if the ground will continue to allow transport of pollution throughout the different layers of water and peat. It will be much more expensive to remediate later, difficult to investigate and impossible to monitor once the wetlands are removed and the dirt and pavement laid down. But then again, maybe this is what the Port wants? Maybe they want this all done quickly before the Agreed Order study uncovers massive pollution problems. Maybe the Port knows how bad the pollution problem is and wants to bury it under 80 billion pounds of dirt and pavement making it impossible to dig up and fix?

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The Port and FAA

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The Port of Seattle and the FAA have a great deal of power. The FAA is autonomous and operates outside the normal guidelines that most officials and government agencies must

AR 036127

abide by. Port commissioners are not sworn to represent the individual citizen although they are elected by popular vote. However, due to the tremendous amount of environmental effects that urban airports located all over the world are having on the local communities, many new organizations are forming on a regular basis to fight this unyielding power and clout. Eventually, and already in certain parts of the world, it is becoming apparent, that airports are not compatible with single family residential neighborhoods anymore. Many urban airports that were opened or became prominent during World War II are no longer compatible with the neighborhoods which surround them. They have become too noisy, too polluting and too disruptive to normal living. Construction of the new Denver Airport which is located on over 60,000 acres with 5 runways and room for 7 more, is a good example of the ability and necessity of moving airports away from populations. Carriers are using the new airport. Roads are being created to move people and goods in and out. And although the official cost of the airport is over 4 billion dollars, the cost of building **just one runway** at Sea-Tac with its necessary infrastructure, terminal and SASA is nearly equal to this amount at 3.3 billion. Additionally, to properly mitigate around Sea-Tac and compensate homeowners for their true property value losses would be five times this amount, making Denver International look like a real bargain in comparison!

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A new national organization has recently formed, US Citizens Aviation Watch (CAW) which has organizations from all over the country as its membership. Collectively, CAW represents over a million people and is linked with organizations throughout the world representing 23 European countries, Australia, Canada and Africa. With so many organizations and members worldwide who are interested in airport pollution problems, it is increasingly obvious that politicians and regulators have made the wrong choices along the way in allowing airport sponsors to invest public monies in continued development at these severely polluted, obsolete facilities. The piling of more concrete on top of old fuel lines with unremediated, unchecked and unknown leaks, and tanks spilling fuel, oil, grease, solvents, glycol, PCB's and other pollution on the ground for decades merely because political power and clout of airport

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sponsors and the FAA made it difficult for anyone to stand up to them and demand it be dug up and cleaned up, is a universal problem. It is also becoming apparent who allowed known pollution problems common to airport operations to continue to contaminate the local environment. Our wetlands act as a buffer to these pollution problems. They help to absorb and filter these contaminants from water that becomes recharge into our drinking water supplies. Although since I have listed such an array of dangerous wastes, and it doesn't appear that the airport is going to step up to pay for and clean up everything overnight, it may seem ridiculous to say lets try and save these local wells. Continuing to use them once this contamination reaches them may be life and health threatening. But why let it get any worse? Potable water is becoming scarce all over the world!!! We will all die without clean water to drink and it will cost us all a fortune to find a new water supply or for each of us to pay for bottled water. It seems especially ridiculous to try to get this argument through to people when the aquifer water supply is there, it is potable and this vital resource is threatened by a single stupid 8500 strip of pavement. How is it that this one limited use, short-term runway is more important than one of the most valuable resources on earth?

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Endangered Species

The Port and Trout's Unlimited have listed a number of fish which use Des Moines and Miller Creeks which are in the process of being listed as endangered. Among some are the Chum, Coho and Cutthroat Salmon. The habitat of these salmon will be destroyed if the wetlands are filled. Wetlands create pools of water where fish can hide out during spawning and with the open areas created by creek relocation and wetland removal, there will be more areas for predators to catch exposed fish. Removing the wetlands and the associated ability of wetlands to filter pollutants will also mean that more pollution such as ethylene and propylene glycol and high levels of metals, fecal coliform, etc., from airport runoff will go directly into the streams. A recent study from Baltimore showed that just 74 parts per million of propylene glycol is 100% lethal to all aquatic life and that just over 60 parts per million of ethylene glycol

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rots out the guts of fish. Previous testing of Miller and Des Moines Creeks have disclosed levels in the range of 3,000 parts per million and above of ethylene and propylene glycol which comes from de-icing and anti-icing of aircraft. These de-icing activities occur on over 200 days per year at Sea-Tac and are a real community concern. 57

Other Concerns

A recent article in New Scientist Magazine summarized from studies done in Japan and Great Britain point to a new discovery in what is now believed to be the most carcinogenic atmospheric compound known to man, a PAH called nitro-benzanthrone. The primary source of this pollutant is so far identified as diesel trucks. Permitting this wetland fill will allow thousands of diesel trucks into our neighborhoods daily for years to come, exposing our citizens, children, mothers, fathers and pets to the most deadly airborne pollutant ever discovered and at a rate that would far exceed normal ambient impact levels (see enclosed letter I recently sent to you on this subject). A cancer-risk analysis would show what the expected exposure and increased risk indications are and can pinpoint potential hot-spots. This study should be done immediately. There is the possibility that aircraft also emit this pollutant since the diesel fuel used by trucks is similar to that of aviation fuels. This potential added to all the haul trucks, combined with the dust of dumping, digging and hauling which will enable the pollution to spread further into our sensitive, heavily populated area should be a major concern since the transport of airborne particles will be greater during construction. 58

People are also not assured that the soil will be free of contamination. There are preliminary plans to barge dirt from Maury Island. This dirt could contain arsenic and there are no safeguards built into the EIS or any permit to test the dirt or require remediatiation of contaminated fill. Water resources on Maury island may also be affected by removal of this soil since disturbing the ground could allow arsenic to enter precious drinking water supply that has been identified beneath the potential borrow area. No matter which alternative is chosen, 59 60

AR 036130

60 whether hauling dirt to the area to be filled by truck or barging dirt across the sound and then using a conveyor system, each poses environmental risk that has neither been quantified, studied, documented or distributed to proper officials, agencies and the public for comment.

Previous Corps of Engineer Comments

Corps comments signed by Jack Kennedy dated August 14, 1995 asked the Port of Seattle/FAA for ("multi-functional justification") reasons why replacement wetlands could not occur in the same basin as those affected by the project. The Port and FAA had previously stated that the area was developed and not enough land existed within the watershed to create compensatory mitigation wetlands. This is not true. Scaling back on the warehouse project to the north, the parking lot at the wellfield protection area, SASA, or any number of other projects planned for the immediate vicinity around the airport could create room for wetland replacement. I am not a fan of the third runway project so I hate to make suggestions which assume the argument that the runway will be built, but land is available for compensatory mitigation. All the areas I just named were available land areas near the existing wetlands where new wetlands could be created. There was an existing wetland to the south of the airport at Des Moines Way South and South 192nd Street that was turned into warehouses in 1996. If the Port had been truly interested in wetland enhancement or relocation in the same basin, this land, part of Des Moines Creek basin, could have been purchased and used. Presently, across the street from this location there is another acre or more of wetland area that has a sign posted for development of more cargo warehouse facilities. This also could be used for wetland enhancement and relocation, but the Port is ignoring it and banking on the Auburn site. If the Corps were to come to the areas to the north, south and west of the airport, they could see for themselves all the available land and the land which could easily be made available for wetland relocation.

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I believe the Port wants the relocation to occur in Auburn, far away from the scrutiny of the airport communities. I know that the Port has a very poor mitigation record and I believe, due to the low success of wetland relocation projects in general, that any failure of the Port to create working wetlands, to finish the relocation project, or maybe to even just abandon it at some future time when it appears it will cost too much money, or any combination of the above, will be typical behavior. By then, all agency scrutiny will be done and over with, the affected basins will be destroyed and local jurisdictions will raise taxes to manage all the extra surface water and its associated problems, and the Port will have its runway which is expected to exceed practical capacity before it is even finished.

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Sincerely,

Debi L. Wagner

Debi L. Wagner, Co-Vice President of CASE
Vice President US Citizens Aviation Watch
16247 8th Avenue Southwest
Burien, WA 98166
(206) 241-1553

Jennifer M. Belcher
Commissioner of Public Lands

June 18, 1997

The Honorable Scott Thomasson
City of Des Moines
21630 11th Avenue South
Des Moines, WA 98198-6396

Dear Mayor Thomasson:

Thanks for your letter regarding the need for reclamation permits from the Department of Natural Resources for the Sea-Tac Airport expansion project. I know that Bill Lingley of our Geology and Earth Resources Division has been in contact with you and your staff. I've appreciated your patience while we continued to research this matter. In fact, your office provided new information that changed our original position on this issue.

That information shows borrow pit sites Numbers 1, 2, and 3 should not be considered on-site construction since they aren't contained within the same contiguous ownership as the proposed new construction. They would, therefore, need a Surface Mine Land Reclamation Permit. However, site Number 4 appears to be contiguous and would not require a permit because it is exempted by law.

Also, in the enclosed letter from Traci Goodwin, the Port of Seattle acknowledges the need to obtain a permit from the department for the pits that aren't contiguous to the construction sites. Of course, a permit from the department is only necessary if the pits are first approved by the local land use authorities. No mining would be allowed before obtaining a reclamation permit from the department.

I'm pleased that the most significant proposed mining will receive appropriate review and conditioning to ensure protection of the environment, and that the area will be reclaimed in a manner compatible with the approved subsequent use.

Department of Natural Resources
Olympia, Washington 98504-7000
(360) 902-1000

If you have any further questions or concerns, please feel free to call Art Tasker in our South Puget Sound Region office, at (360) 825-1631. Art will be happy to assist you.

Sincerely,

JENNIFER M. BELCHER
Commissioner of Public Lands

JMB/AT:cwp

c: Des Moines City Council
Calvin Hoggard, SeaTac City Manager
Airport Communities Coalition
Senator Julia Patterson
Representative Karen Keiser
Representative Rod Blalock
Art Tasker, DNR

(97A-0153)

Port of Seattle

June 5, 1997

Ms. Bonnie Bunning
Department of Natural Resources Southwest Regional Office
P.O. Box 68
Enumclaw, WA 98022

Re: Surface Mining Permit For South Borrow Sites

Dear Ms. Bunning:

Art Tasker has asked me to write to you and clarify whether the Port of Seattle intends to obtain a surface mining permit from the Department of Natural Resources for Port property south of the airport that may be used as a borrow site for third runway construction.

It is my understanding that certain parcels of this property are contiguous to the fill and construction sites and are thus exempt from surface mining permit requirements. For those parcels not contiguous to the construction sites, the Port does intend to comply with the applicable requirements of the Surface Mining Act, Chap. 78.44 RCW.

I hope this clarification is helpful. Please feel free to contact me at 728-3702 if I can provide any additional assistance or clarification.

Yours truly,

Traci M. Goodwin
Senior Port Counsel

TMG/csf
cc: Art Tasker, Department of Natural Resources

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DNR-SPS
AR 036135

March 31, 1998

Army Corps of Engineers
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

ATTENTION: Jonathan Freedman, Project Manager
RE: Permit application #96-4-02325

Dear Mr. Freedman:

New substantive and significant information has just recently been brought to the attention of the Citizens Against Sea-Tac Expansion (CASE) Organization. We have learned that diesel powered trucks are producing a compound now thought to be the most carcinogenic airborne pollutant ever discovered.

This information should trigger a postponement of permit issuance until a cancer risk analysis for the area surrounding Sea-Tac Airport can be conducted, as the project proposed in the Master Plan Update EIS plans to use over 1,000 diesel powered double haul trucks per day driving in and out of our densely populated neighborhoods to fill wetlands, remove soft soils and excavate on-site borrow sources.

I would also like the Army Corps to be aware that Puget Sound Air Pollution Control Agency in their scoping comments and draft EIS comments asked the Port of Seattle and FAA to conduct a cancer risk analysis for their Master Plan evaluation citing a potential for increased community risk for pollutants such as that described in the New Scientist article. The Port and FAA claimed that a lack of information restrained them from doing such an analysis. However, a cancer risk analysis has been performed regarding exhaust from aircraft and trucks for the areas surrounding Midway Airport in Chicago as recently as 1993 by US EPA. Information on risk factors and pollutants is archived in that study and can be readily utilized to perform such an analysis.

Please see the enclosed article from new Scientist dated October 25, 1997 and the additional material from a separate study on the potential for airborne nitro-PAH compounds to exist in exhaust from jet aircraft fuel combustion. The combination of aircraft exhaust compounds combined with so many diesel haul trucks in our neighborhoods is likely to pose an increase in risk to nearby residents and should immediately be assessed.

Thank you for your time and consideration of this important matter.

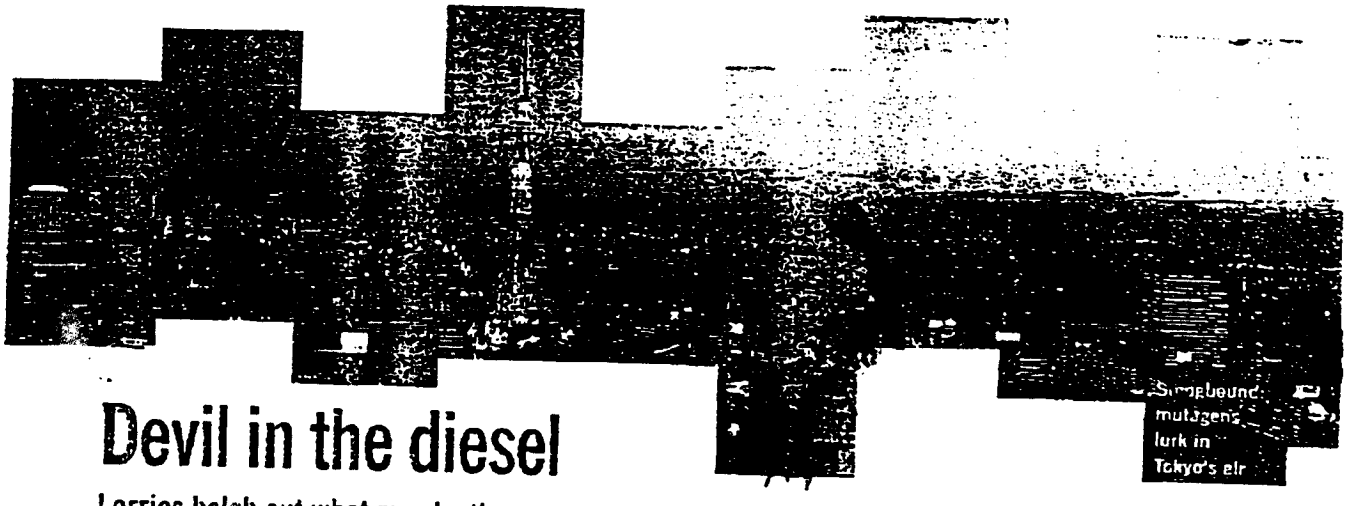
Sincerely,

Debi L. Wagner

Debi L. Wagner
16247 8th Ave SW
Burien WA 98166
(206) 241-1553
Email

c: US EPA
DOE
PSAPCA
Congressman Smith
Senators Patterson, Heavey
Representatives Keiser, McCune
ACC

THIS WEEK
SCIENCE AND TECHNOLOGY NEWS



Devil in the diesel

Lorries belch out what may be the most carcinogenic chemical ever discovered

A COMPOUND discovered in the exhaust fumes of diesel engines may be the most strongly carcinogenic ever analysed, say Japanese researchers. They warn that a major source of the chemical is heavily loaded diesel engines, and that it could be partly responsible for the large number of lung cancer cases in cities.

The compound, 3-nitrobenzanthrone, produced the highest score ever reported in an Ames test, a standard measure of the cancer-causing potential of toxic chemicals. "I personally believe that the recent increase in the number of lung cancer patients in vehicle-congested areas is closely linked with respirable carcinogens such as 3-nitrobenzanthrone," says Hitomi Suzuki, a chemist at Kyoto University who led the study. Test emissions from truck engines and the air above central Tokyo both contained the compound.

3-Nitrobenzanthrone is a nitrated polycyclic aromatic hydrocarbon (nitro-PAH). It is produced during reactions between ketones—by-products of burning fuel—and airborne nitrogen oxides that take place on the surface of hydrocarbon particles in diesel exhaust.

The researchers used the Ames test to measure the number of mutations the compound caused in the DNA of standard strains of bacteria. In a test with a strain of *Salmonella typhimurium*, 3-nitrobenzanthrone recorded more than 6 million mutations per nanomole. This compared to a score of 4.8 million for its nearest rival, 1,8-dinitropyrene, which is also found in diesel exhaust and had until now been the most powerful known mutagen.

In a further experiment, the researchers found that the compound caused "considerable chromosomal aberrations" in the blood cells of mice, suggesting that it is likely to have similar effects on other mammals, including humans. Suzuki and colleagues from the National Institute of Public Health in Tokyo and the Kyoto Pharmaceutical University report their findings in the October issue of *Environmental Science and Technology* (vol 31, p 2772).

The two mutagens are found only in minute quantities. Each makes up no more than a few parts per million of the particulates in diesel exhaust. Nonetheless, the authors conclude that they are so potent that "it is easily understandable that they would contribute considerably to the total mutagenic activity of diesel exhaust particle extracts".

Tiny combustion particles, many of them from diesel exhausts, have been estimated to cause 10 000 deaths in Britain and 60 000 in the US each year ("Dying from too much dust", *New Scientist*, 12 March 1994, p 12). Tony Seaton of the Aberdeen Royal Infirmary, a leading adviser on air pollution and health to the British government, says: "PAHs are known carcinogens and nitro-PAHs are probably the worst. This one seems to be new to us."

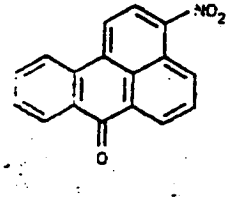
The Japanese study also provides clues about how to reduce the threat from 3-nitrobenzanthrone and other nitro-PAHs. It reveals a "remarkable increase" in emissions when engines are working under heavy load. This may show "the potential danger of engines overloading", Suzuki says.

He calls for stronger regulations to limit the loads that diesel trucks can carry. In addition, nitro-PAHs are created faster in smoggy air with high levels of nitrogen oxides and ozone.

Fred Pearce

'Emissions from trucks and air above Tokyo contained the compound'

3-nitrobenzanthrone



AR 036137

Airplane emissions: A source of mutagenic nitrated polycyclic aromatic hydrocarbons

Michael A. McCartney [1], Barbara F. Chatterjee [2], Elena C. McCoy [1], Edward A. Mortimer Jr. [2] and Herbert S. Rosenkranz [1]

[1] Department of Environmental Health Sciences and of [2] Epidemiology and Biostatistics, Case Western Reserve University School of Medicine, Cleveland, Ohio 44106, U.S.A.

(Received 18 September 1985)
(Revision received 16 April 1986)
(Accepted 21 April 1986)

Summary

Organic solvent extracts from airplane emission particulates are mutagenic for *Salmonella typhimurium* in the TA98 Ames test. Using Salmonella tester strains deficient in enzymes required for the bioactivation of various nitroarenes, the mutagenicity present in these emissions was ascribed to the presence of nitrated polycyclic aromatic hydrocarbons. Based on the known aircraft particulate emission rates at U.S. airports, and using 1-nitropyrene (1-NP) and 1,8-dinitropyrene (1,8-DNP) as surrogates, it is calculated that at a minimum 1 kg 1-NP and 20 g 1,8-DNP are emitted daily at a typical U.S. airport.

The recognition of the potent mutagenicity of nitrated polycyclic aromatic hydrocarbons (nitroarenes) and their widespread environmental distribution, mainly from the emissions of incomplete combustion processes, has caused concern regarding their potential health effects (Rosenkranz and Mermelstein, 1983). This concern is heightened by the finding that some members of the group exhibit carcinogenicity in laboratory animals (Busby et al., 1985; El-Bayoumy et al., 1982, 1984; Hirose et al., 1984; Ohgaki et al., 1982, 1984, 1985; Rosenkranz and Mermelstein, 1983; Takayama et al., 1985; Tokiwa et al., 1984). Because of their recent discovery in the ambient atmosphere, knowledge concerning their distribution in the environment is lacking and this, in turn, has hampered the design of adequate epidemiological studies. Heretofore, the diesel-powered passenger car and truck had been considered the major sources of nitroarenes (Rosenkranz, 1982, 1984). Because of the mobile nature of these emissions, and the fact that nitroarenes are present primarily in the particulate fraction, environmental levels and the extent of human exposure have not been determined. The combustion products of aviation fuels are amenable to investigation and the nature and dispersion of aircraft emissions in or near airports have been studied in great detail. Since populations living near airports are accessible, it is conceivable that this situation would satisfy the basic requirements for an epidemiological study of the possible health effects of nitroarenes, if indeed this group of chemicals is shown to be present in the emissions from aircraft. Moreover, it would appear that the factors required for the formation of nitroarenes are present in aircraft emissions, i.e., simultaneous presence of polycyclic aromatic hydrocarbons and oxides of nitrogen (Pitts et al., 1979; Tokiwa et al., 1981).

This report describes the presence of putative

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Field studies conducted for the Biological Assessment indicate that the occurrence of black tern, marbled murrelet, mountain quail, bull trout, northwestern pond turtle, and spotted frog is unlikely because appropriate habitat for these species does not exist in the focus area. The Biological Assessment for all listed and candidate species is presented in **Appendix K.**

TABLE IV.17-1

SPECIES OF CONCERN LISTED AS POTENTIALLY OCCURRING IN THE DETAILED STUDY AREA[1]

Common Name	Status*
Bald eagle	ST, FT
Peregrine falcon	SE, FE
Great blue heron	SM
Pileated woodpecker	SC
Marbled murrelet	SC, FC
Black tern	FC
Bull trout	FC
Mountain quail	FC
Northern red-legged frog	FC
Northwestern pond turtle	FC
Spotted frog	FC
Coho salmon	FC
Steelhead	FC
Chum salmon	FC

*Status

SC = State candidate for endangered, threatened, or sensitive; SE = State endangered; SM = State monitor; ST = State threatened; FC = Federal candidate for endangered, threatened, or sensitive; FE = Federal endangered, FS = Federal sensitive; FT = Federal threatened

[1] Management Recommendations for Priority Species, Washington State Department of Wildlife 1991.

The National Marine Fisheries Service documents three anadramous fish species that are currently candidates for listing as potentially occurring in, or downstream from, the detailed study area. These species are coho salmon, steelhead, and chum salmon.[2]

No rare plants, high-quality native wetlands, high-quality native plant communities, or the Washington Natural Heritage Information System are located in the study area.[3]

(2) FUTURE CONDITIONS

Potential impacts on threatened and endangered species are discussed in the following sections. Potential construction and operational impacts for each of the "With Project" alternatives were evaluated for five construction phases scheduled for completion by the years 2000, 2010, 2020.

(A) Do-Nothing (Alternative 1)

The Do-Nothing alternative would result in the Airport area remaining as it exists today, with the exception of the SASA development, the SR509/South Access Road project, and other improvements. Therefore, no impact on threatened or endangered species is expected.

(B) "With Project" Alternatives (Alternatives 2, 3, and 4)

As a result of the proposed new parallel runway construction, approximately 278 acres of forest, grassland, and wetlands potentially suitable for bald eagle perch and foraging habitat, would be permanently lost. These areas are located in the North Borrow Area, South Borrow Area, the SASA, and west of the existing airfield.

Bald eagles and peregrine falcons occur as transients in the detailed study area. Airport development related construction activities are not expected to significantly affect nesting or wintering bald eagles. The closest nesting pairs in the vicinity of the Airport are located near Seahurst Park, approximately 8 miles west of the Airport and at Angle Lake located about 0.75 miles southeast of the Airport. Construction activities are not likely to affect these nests because of their distance from the site. Wintering populations of

[2] Brian Brown, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. June, 1994.

[3] Sandra Norwood, Washington Natural Heritage Program, Division of Land and Water Conservation. January, 1995.

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Table 3.5 Summary of Electrofishing Data from Des Moines Creek on August 19, 1996.

	Species				
	Steelhead	Cutthroat	LM Bass	Pumpkinseed Sunfish	Sculpin
# Captured	14	19	5	3	2
Minimum Length (mm)	84	76	65	81	85
Median Length	98	108	76	81	–
Max Length	196	260	79	85	101

A number of spawning fish were observed in Des Moines Creek. Three spawning inventories occurred in late November and December, 1996 (Table 3.6), covering the park and plant reaches. Table 3.6 shows the number of live fish, fish carcasses and salmon redds ("nests") identified during these inventories. When possible, the sex of fish and carcasses was identified and is recorded. Pink salmon were also reported as being present in the park reach. While reported by a knowledgeable resident, these reports were not confirmed.

Table 3.6 Summary of Spawning Inventories in Des Moines Creek.

Date	Location	Species	Live Fish	Carcass	Redd
11/27/96	Park	coho		2M 1F	1
12/8/96	Park	chum	1F	2M	
		cutthroat	3		
12/20/96	Park	chum	13		3

M = Male F = Female

Physical Habitat

The physical habitat of Des Moines Creek has been inventoried several times in recent years. The most recent inventories occurred in August, 1986 (Johnson 1987), December, 1993 (Resource Planning et al., 1994), and for preparation of this report .

The 1986 inventory, which was primarily a qualitative inventory, described the stream as having little diversity in the first 0.4 miles of stream. It was most "natural" condition for the next 1.69 miles with abundant woody debris and a pool: riffle ratio of nearly one to one. In this reach, there were areas of exposed hardpan. Upstream of RM. 2.0 ((approximately South 200th Street - see Figure 1.2), the stream was channelized.

The 1993 inventory, which was more quantitative, collected data on the instream habitat and stream profile from the near the stream mouth to upstream to South 200th. This inventory found the most common habitat type was low gradient riffle. Of the 133 residual pool depths identified from the profile, the median residual pool depth was 0.9 feet. The dominant vegetative species in the riparian corridor were red alder, willows, and Himalayan blackberries. The substrate consisted of mostly 15 to 80 mm gravel.

AR 036140

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FOR RELEASE: April 24, 1997

Contact: Susan Lang
Office: (607) 255-3613
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Kids near airports don't read as well because they tune out speech, Cornell study finds

ITHACA, N.Y. — Children in schools bombarded by frequent aircraft noise don't learn to read as well as children in quiet schools, Cornell University researchers have confirmed. And they have discovered one major reason: kids tune out speech in the racket.

"We've known for a long time that chronic noise is having a devastating effect on the academic performance of children in noisy homes and schools," says Gary Evans, an international expert on environmental stress, such as noise, crowding and air pollution. "This study shows that children don't tune out sound per se, rather they have difficulty acquiring speech recognition skills."

Evans and his collaborator, Lorraine Maxwell, both environmental psychologists, are in the Department of Design and Environmental Analysis in the College of Human Ecology at Cornell.

Evans and Maxwell compared children in a noisy school (in the flight path of a major international airport) with similar children in a quiet school. Unlike in other studies, both groups of children were tested in quiet conditions. By doing so, the researchers showed that the link between chronic noise and reading scores is the chronic noise exposure -- not noisy episodes that might have occurred during the testing sessions.

Evans and Maxwell, whose study will be published in *Environment and Behavior* later this year, compared a total of 116 first and second graders from two elementary schools. One school was battered by peaks of up to 90 decibels of noise every 6.6 minutes by low-flying planes passing overhead. The other school, closely matched for ethnicity and percentage of children receiving subsidized school lunches and speaking English as a second language, was in the same urban area but in a quiet neighborhood. Only children for whom English was their first language were included in the study.

Each child was first given an auditory screening test. They were subsequently tested for abilities to read, distinguish words with background noise, distinguish sounds with background noise and distinguish word sounds (phonemes) under quiet conditions. The tests, with the exception of the initial auditory test, were conducted by Elissa Tolle and Pegauy Santil, 1996 Cornell graduates in human ecology, who were both seniors at the time. When the data were analyzed, the researchers controlled for mother's education.

-more-

Aircraft Noise

A Potential Health Hazard

Arline L. Bronzaft
Kathleen Dee Ahern, Ph.D., RN
Regina McGinn, MD, FACP
Joyce O'Connor, Dr.PH, RD
Bartholomew Savino

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From: Jack Saporito To: Debi Wagner
Date: 4/1/98 Time: 17:35:57
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AR 036142

AIRCRAFT NOISE
A Potential Health Hazard

ARLINE L. BRONZAFT, *professor emerita, Lehman College (City University of New York), Bronx, NY, has written extensively on the effects of noise on mental and physical health. She is on the board of directors of New York City's Council on the Environment, is a consultant to the League for the Hard of Hearing, and serves as an advisor on noise to numerous citizen groups in the United States and abroad.*

KATHLEEN DEE AHERN, *Ph.D., RN, is an associate professor in the Department of Nursing, Wagner College, Staten Island, NY, and is the research methodologist for the Department of Medicine, Staten Island University Hospital.*

REGINA McGINN, *MD, FACP, is the associate director of medicine and program director of the Primary Care General Internal Medicine Program, and the director of ambulatory care at Staten Island University Hospital, Staten Island, NY. She is also a clinical assistant professor in the Department of Medicine at the State University of New York Health Science Center in Brooklyn, NY.*

JOYCE O'CONNOR, *Dr.PH, RD, is a registered dietitian and holds a doctorate in public health. She is the director of Public Health Education and Research, where she directs the outpatient health education program, teaches patient education and counseling skills, and conducts survey research for the hospital. She is an associate professor at the College of Staten Island, City University of New York.*

BARTHOLOMEW SAVINO, *was a chief resident in the Internal Medicine Residency Training Program at Staten Island University Hospital. He is presently pursuing a career in primary care medicine as an attending physician.*

ABSTRACT: A questionnaire distributed to two groups, one living within the flight pattern of a major airport and the other in a nonflight area, sought to determine whether these groups would respond differently to questions pertaining to noise, health perception, and quality of life issues. Nearly 70% of the residents living within the flight corridors reported themselves bothered by aircraft noise. Aircraft noise, in

AUTHORS' NOTE: *This study was funded in part by a grant from Mr. Guy Molinari, Staten Island Borough President.*

ENVIRONMENT AND BEHAVIOR, Vol. 30 No. 1, January 1998 101-113

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From: Jack Saporito To: Debi Wagner Date: 4/1/98 Time: 17:38:25 Page 3 of 8

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contrast to other bothersome noises, interfered more frequently with daily activities. Subjects who were bothered by aircraft noise were more likely to complain of sleep difficulties and more likely to perceive themselves to be in poorer health. The study's finding of a possible relationship between noise and adverse health effects might encourage policy makers to enact pending antinoise legislation and to fund further noise research.

New York City residents, especially those living in Queens and Staten Island, like millions of people nationwide, have long complained about intrusive aircraft noises (Onishi, 1996). Metropolitan New York, with three of the nation's busiest airports (LaGuardia, Kennedy, and Newark), undoubtedly has more people affected by aircraft noise than any other region in the country. In fact, in a recent report, LaGuardia Airport itself was listed as having the greatest number of people living within the government's designated noise contour area (Skelton, 1996).

Skelton also identifies 11 other airports with large numbers of people living within designated noise contours, but she is quick to add that many people living outside these designated zones are also disturbed by aircraft noise, sometimes for many hours a day. People living outside the contours are ignored in government reports on aircraft noise because noise levels in their communities fall below the government-designated "average noise levels," which are based on noises tracked for 24-hour periods. Such averages ignore the impact of single, intense noise events that can be very disturbing to people living outside the designated contours. Unquestionably, the government is underreporting the numbers of people affected by aircraft noise.

There is also another segment of the population omitted from government reports on noise; namely the visitors to the Grand Canyon national park who can no longer really experience the solitude of the canyon because of the onslaught of thousands of overhead plane and helicopter flights during the peak summer months (Jaroff, 1995). Concerned about protecting the quiet of our parks, Stephen M. Oppermann, of the United States Department of the Interior, said, "We manage some of the quietest places . . . and are, at this moment, heavily involved in developing national strategy to protect this precious resource" (personal communication, July 1996).

However, we know of no protection plans for the greater numbers of community residents who will be affected by the expansion of our airports if the 37 of 50 airports, queried by Stenzel (1996) for her report on aircraft noise impacts, carry out their proposed plans. That residents who live near airports are disturbed by the noise was demonstrated in two recent surveys that were conducted by the City of Grapevine north of the Dallas/Fort Worth Airport

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in 1992 and 1994 (Federal Interagency Committee on Aviation Noise [FICAN], 1995). In both surveys, the majority of the respondents reported that the airport operations interrupted their sleep, their normal activities, and their quality of life.

Despite the long-term complaints of residents living near airport operations and their accounts of the adverse effects aircraft noise has had on their health and quality of life, too little has been done to address these concerns. This can in part be explained by the failure of the Federal Aviation Administration (FAA) to consider the possibility that aircraft noise may be detrimental to the health of citizens living within the paths of the overhead jets. Rather, the FAA is inclined to dismiss the potential hazardous impacts of aircraft noise. "The bulk of the agency's promotional activities usually involves filing court briefs supporting airports in cases brought by neighbors complaining about aircraft noise" (Wald, 1996, p. A12).

The FAA might find it more difficult to take its customary position if there were sufficient data to demonstrate a strong relationship between noise and ill health. Unfortunately, there is a paucity of studies in the United States investigating the relationship between aircraft noises, or any noises for that matter, and impact on community health. The American studies were conducted for the most part prior to the closing of the federal office of Noise Abatement and Control in the early 1980s (Fay, 1991). Sadly, the federal government's reports also reflect its lack of interest in pressing for the needed epidemiological studies (Federal Interagency Committee on Noise [FICON],1992; FICAN, 1994, 1995, 1996). By contrast, there are more recent studies in the European countries, where there appears to be a greater interest in noise and health (Passchier-Vermeer, 1993).

The existing research suggests a relationship between noise and the health of community residents who have been bothered by either aircraft, railroad, or highway noise (Fay, 1991; Health Council of the Netherlands, 1994; Kryter, 1994; Passchier- Vermeer, 1993; Tempest, 1985). These studies indicate that noise may be a critical factor in hypertension, cardiovascular disorders, gastrointestinal disturbances, and sleep problems. Although the studies cited are correlational, they do suggest that noise has a negative effect on physical health. Such studies might have influenced the decision by the World Health Organization to revise its guidelines by reducing the recommended "night-time average level of noise suitable for undisturbed sleep" (Bond, 1996).

Of particular note is a series of studies conducted by Babisch, Ising, and their associates (Babisch, Ising, Gallacher, & Elwood, 1988; Babisch, Ising, Gallacher, Sharp, & Baker,1993; Babisch, Ising, Kruppa, & Wiens,1994). Although these studies on traffic noises found some associations between

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noise and potential ischemic heart risk factors, the authors were unable to significantly demonstrate the relationship between noise and ischemic heart disease. However, they argue that their findings do indicate potential harm from noise and stress the need for additional studies with better controls.

Several studies have examined the relationship between aircraft noise and health in children. Cohen, Evans, Krantz, and Stokols (1980) found higher systolic and diastolic blood pressure among schoolchildren living near the Los Angeles Airport. A later study (Cohen, Evans, Krantz, & Stokols, 1981), which confirmed their earlier findings, had permitted them to conclude that "The consistency of laboratory and field findings is beginning to increase our confidence in a number of deleterious effects of community noise exposure" (p. 345). A more recent study on children living near Munich's International Airport (Evans, Hygge, & Bullinger, 1995) found a relationship between chronic noise exposure and elevated neuroendocrine and cardiovascular measures. Elevated blood pressure early in life possibly is associated with the risk of cardiovascular disease later in life. Therefore, the relationship between noise and hypertension in children should be particularly alarming.

Aircraft noise may also intrude on our mental stability. Abey-Wickrama, a'Brook, Gattoni, and Herridge (1969) and Herridge and Chir (1972) had found higher admissions to mental hospitals for people living near noisy airports, but the methodology of these studies was questioned, indicating a need for more rigorous research in this area. There exist, however, many verbal reports from residents near airports complaining about the noise "driving them crazy." The frustration, anger, and helplessness felt by people who find themselves unable to combat aircraft noise are graphically described in Skelton's (1996) article.

Evans et al. (1995) also found a relationship between chronic aircraft noise and deficits in a standardized reading test among children living near the Munich International Airport. These children also exhibited less persistence in performing challenging tasks. The authors believed their data are "sobering when one considers that more than 10 million American schoolchildren are exposed to comparable noise levels" (p. 337).

Staples (1996) concluded that the existing research findings on noise regarding the "nonauditory health effects have been inconclusive because many are the product of epidemiological and industrial studies that are methodologically weak and were not designed to take into account psychological factors and effect modifiers" (p. 144) Staples then urged psychologists to prod the government to recognize that the existing noise research is indicative of potential health effects. She also stresses the importance of government support in this area to obtain a better understanding of the effects of noise.

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The growing number of anti-aircraft-noise groups throughout the country indicates that noise disturbs large numbers of people living within the air traffic corridors. Ruben (1991) reported 41 such groups in New Jersey alone and 29 in California. In the New York area, where thousands of residents live near three major airports, public officials have been asked to investigate the relationships among noise, health, and quality of life. The present undertaking was the result of these requests made to local officials.

It was decided that several questions on noise impacts would be included within a general wellness questionnaire that had been routinely distributed to community residents by the Staten Island Hospital. In this case, two communities would receive the questionnaires, one living within the flight pattern of a major metropolitan area and the other in a nonflight area. The noise questions would examine the relationship between perceived noise disturbances and health perceptions and quality of life issues among these two groups.

METHOD

SAMPLE

Two samples were randomly selected from two communities of comparable socioeconomic status and approximately the same size, namely 35,000 residents, but that differed with respect to aircraft noise exposure. Three thousand subjects, 1,500 from each area, were selected by computer randomization for study inclusion.

The sample selected from the high air traffic area lived within the 65 dB day-night average sound level (DNL) threshold set by the FAA to designate communities that the agency recognizes as unduly affected by aircraft noise. The DNL is a level of noise derived by measuring average sound levels in a 24-hour period. Nighttime noise, between the hours of 10:00 p.m. and 7:00 a.m., is weighted, allowing an extra 10 decibels for sleep disruption.

At the time the sample from the flight pattern area was selected, the residents were subjected to an average of 250 overflights per day and experienced single noise levels exceeding 90 dBA approximately 40% of the time that these planes flew overhead. The control sample did not live within the contour and was considered a quiet community with respect to air traffic.

Of the 3,000 surveys mailed, 55 were returned because of wrong addresses. Of the remaining 2,945, 521 were completed, representing a total of 18%. Of these 521 subjects, 266 identified their communities, 130 lived

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within the flight pattern, and 136 lived outside the pattern. The number of completed questionnaires from each community was comparable, indicating that subjects living with the overhead airplanes did not respond in greater number.

TESTING INSTRUMENT

The Community Wellness and Health Promotion Survey was a 20-item questionnaire developed by researchers at the Staten Island University Hospital to elicit information on residents' health and had been used prior to this study. Seven demographic items pertained to sex, age, ethnic background, level of education, and occupation. Thirteen questions related to physical and psychological health; 11 of them were fixed- response with 4 to 6 multiple choices, and 2 items called for dichotomous responses of yes or no.

For the purpose of this investigation, 4 noise questions were added to the Community Wellness and Health Promotion Survey. These questions were designed to find out how annoyed individuals were by noise, which types of noise disturbed them, how disruptive these noises were to daily activities, and whether respondents had complained to the authorities about noises in their neighborhoods. One question was fixed response with 4 multiple choices, and 3 questions called for dichotomous responses of yes or no. The noise questions followed the demographic and health questions. Thus, the newly designed Community and Health Promotion Survey for this investigation contained 24 items.

Factor analysis was performed on the new Community and Health Promotion Survey to establish construct validity. A total of six factors were extracted with only one item related to body weight not loading sufficiently on any factor. The items related to health behaviors including smoking, stress, and sleep all loaded on one factor at loadings that ranged from .37 to .79. All of the items relating to noises as sources of bother loaded on a second factor at .63 to.86. Noise interference items loaded on a third factor at .64 to .87. Perceived health loaded with an item that asked about high blood pressure. The two items had loadings of .61 and .52, respectively. A question that asked the degree of noise bother loaded with calls to the police and/or local officials to complain about the noise, and these items loaded at .61 and .52. A sixth factor loaded with one item on seeking health care at .47.

Based on the factor loadings and the extraction of factors, the instrument was considered a valid measure on perceived noise bother and on separate constructs that measure health behaviors and perceived health. Reliability of the survey was established with an obtained Cronbach's alpha of .81 for internal consistency.

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PROCEDURE

Questionnaires were mailed to Staten Island community residents accompanied by a letter signed by a local government official and the chief executive officer of the sponsoring acute care facility. The letter informed the residents that the purpose of the survey was to learn more about the health of Staten Island residents so that their health needs could be better assessed and served by the appropriate agencies. Indeed, the hospital intended to use the responses of this questionnaire for this purpose. Residents were also given the opportunity to add personal comments at the end of the questionnaire, and they were also asked whether they would be willing to participate in further studies. At no time were the subjects informed that the investigators were interested in measuring their reactions to aircraft noises.

RESULTS

The two groups (130 living within flight patterns, 136 in nonflight area) did not differ significantly with respect to age or gender. However, 23% of the individuals located within the flight patterns identified themselves as either Black or Hispanic, whereas only 3% of the group in the nonflight area listed themselves as belonging to these groups. Because the two groups lived in communities that were comparable socioeconomically, and the education of the subjects in the two groups was comparable (47% of the subjects in the "noise" area and 48% of the subjects in the "non-noise" area had some college education), the authors did not believe that race would interfere as a confounding variable.

The first noise question within the general wellness questionnaire asked subjects to describe how bothered they were by neighborhood noise. The four options were *a great deal*, *somewhat*, *rarely*, and *not at all*. Thirty two percent of the subjects within the flight pattern answered *a great deal* compared to 14% in the nonflight area. A chi-square analysis revealed the differences between the two groups to be significant (chi-square = 10.25, $df = 1$, $p = < .001$).

The second noise question asked for the types of noise that bothered individuals (car/truck, airplanes, barking dogs, neighbor noises, loud music, garden equipment, rowdy passersby), and the responses for the flight pattern and nonflight groups are shown in Table 1.

As Table 1 indicates, individuals living within the airplane paths were clearly most affected by airplane noise. The data from the nonflight area showed car/truck and loud music to be most bothersome. A chi-square

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TABLE 1
Types of Bothersome Noises Affecting Communities

Noise Source	Flight Pattern (A) (n = 130) %	Nonflight Area (B) (n = 136) %	Difference (A – B) %
Airplanes	69.2	15.4	53.9
Neighbor noises	28.5	18.4	10.1
Dogs barking	33.1	30.9	2.2
Car/truck	36.2	35.3	0.9
Rowdy passerby	28.5	30.1	−1.5
Loud music	30.8	33.8	−3.0
Garden equipment	16.4	32.4	−16.0

analysis revealed that the most significant difference between the two groups existed for the airplane noise, with 69.2% in the paths of the planes being affected by aircraft noise and 15.4% of the nonflight group affected (chi-square = 72.16, $df = 1$, $p = < .01$).

The third question asked how noise interfered with the lives of the individuals. There were significant differences between the groups, with a higher proportion of individuals from the flight pattern area reporting that noise interfered with specific activities. Table 2 contains the life activities and the results on group differences.

The fourth noise question asked whether individuals complained to police or government officials about the noise. In the flight pattern group, 29.2% of the subjects said they did, whereas only 16.2% in the nonflight area responded in the affirmative. These differences were significant (chi-square = 6.19, $df = 1$, $p = < .01$).

The noise questions had followed a series of health-related questions in which subjects were asked to report on their health in general, their sleeping patterns, the foods they eat, their exercise habits, their smoking behavior, and the amount of stress in their personal lives. These health indicator questions were then crossed with the first noise question that asked residents how bothered they were by noise.

Of the 130 subjects who lived in the flight pattern area, 80 reported that they were bothered *a great deal* or *somewhat* by noise, whereas the remainder responded *rarely* or *not at all*. When crossed with the health question that asked subjects to report their general health by checking off one of five options ranging from *poor* to *excellent*, 31 of the 80 subjects bothered by noise stated their health was *poor* or *fair*. Only 8 of the 50 who were not really bothered by the noise reported *poor* or *fair* health. A chi-square analysis (chi-square = 6.54, $df = 1$, $p = < .01$) demonstrated the differences between

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TABLE 2
Chi-Square Analyses of Noise Interference With Life Activities

Life Activity	Flight Pattern Area (n = 130) %	Nonflight Pattern Area (n = 136) %	χ^2
Keeping windows opened	50.0	33.1	7.81*
Sleep	40.0	25.5	6.77*
Radio and television listening	48.5	20.6	21.27*
Talking on telephone	39.2	7.4	36.50*
Talking with others in home	27.7	7.4	18.72*

*$p < .01$.

these two groups to be significant. A similar comparison was made for the 136 individuals living in the nonflight area, and there were no significant differences between being bothered by noises and health perception.

A second health question asked people to check one of five options to describe their sleeping patterns. Responses to this item were then collapsed into two parts: difficulty in sleeping and no difficulty. The responses on the sleep question were then crossed with the responses to the question on noise bother. For the 130 subjects living within the flight pattern, those reporting difficulty in sleeping were more likely to be bothered by noise (chi-square = 7.00, $df = 1$, $p = < .004$). For the 136 subjects living in the nonflight area, there was no significant relationship between being bothered by noise and having difficulty sleeping. When not partitioned for noise bother, the two areas did not demonstrate significant differences on sleep difficulties (chi-square = 1.23, $df = 1$).

All other health indicators were not significant when crossed with being bothered by noise for individuals residing in both areas.

DISCUSSION

The results demonstrated that individuals living in an air flight corridor are indeed bothered by aircraft noise; this is clearly indicated by the fact that nearly 70% of the people are very much aware of the noise. This finding speaks against the notion that people living near airports habituate to the noise. Furthermore, the findings are in keeping with those of Hall (1984), who reported that aircraft noise was more annoying than road or rail noise. Aircraft noise "virtually surrounds a home, entering the living and sleeping

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areas through the roof and two or more sides of the dwelling, while street traffic noise enters predominantly through only one or two sides of the dwelling" (Finegold, Harris, & von Gierke, 1994)

It is surprising that about 15% of the people living in the nonflight area also complained about noise. This might be explained by the fact that when this survey was conducted, the United Nations had a major meeting of international leaders and helicopters were flying above the area not generally within the path of the planes from Newark Airport. Calls complaining about these overhead flights were received by the borough president's office during this period.

It is also very significant that 32% of the residents that live within the flight pattern area, compared to 14% in the nonflight area, stated they are bothered by noise a great deal. Because the other kinds of noise, for example, car/truck, music, and dogs, appeared to bother both community groups to the same extent, one can safely claim that it is the airplane noise in the flight pattern area that is eliciting such a strong response. This statement is confirmed by examining the responses to the question on how noises in the neighborhood interfered with the lives of the residents. Higher percentages of respondents in the flight pattern area answered that noises kept them from opening their windows, sleeping, talking on the telephone, talking with others in their homes, and listening to radio or television. The quality of life of individuals living near the airport was considerably diminished by the intrusiveness of the airplane noises, explaining why nearly a third expressed themselves as being bothered a great deal.

Staten Island residents who resided in the flight pattern area and who reported themselves more bothered by the noises also perceived themselves to be in poorer health. Those who were bothered by noises in the nonflight area did not similarly report poorer health. Although a cause/effect relationship cannot be established between perception of poor health and being bothered by noise for those living in the flight pattern area, this disturbing finding indicates strongly the need for further research and clarification. It is well documented that a patient's perception of health in general, as well as personal evaluations of current health states, health outlooks, and susceptibility to illness, is a valid indicator that has proven useful in detecting health outcomes (Davies & Ware, 1981; Ware, 1986, 1990).

Furthermore, psychological factors play an important part in how people fare health wise, and if people think they are doing poorly, their mental and physical well-being might very well be affected in the long run.

In addition, those living in the flight pattern community who identified themselves as being bothered by the noise were also more likely to report themselves as having sleep difficulty. Although one cannot comment on

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cause/effect, there does appear to be a relationship between sleep difficulty and bothersome aircraft noise. Sleep is essential in well-being, and lack of sleep may eventually create health problems. This relationship between sleep difficulty and noise may also bear on the health responses of the people living in the flight pattern community. Pollak (1991) in his review of the effects of noise on sleep concludes that "Noisy environments may have long-term effects on health and productivity, in addition to the known effects on well-being, that remain to be identified" (p. 54) We also support Pollak's call for additional studies on the effects of noise on sleep patterns.

The people living in the flight pattern community also complained more to the police and government officials about the disturbances from noise. Although we did not specifically ask, it might be assumed, especially from our discussions with local government officials, that these were aircraft-related complaints. Because the noise from the aircraft continues to disturb residents living within their paths, those who have complained believe little has been done to try to alleviate the problem (Borsky, 1980; Gross, 1996). Failure to bring about change after complaints are made can result in learned helplessness (Seligman, 1975), a condition in which people feel there is no use complaining further because nothing will be done to correct the situation. This in turn can lead to feelings of despair and hopelessness, feelings common amongst residents living near airports.

CONCLUSION

In responding to the many noise complaints from individuals subjected to noises from overhead aircraft, Russell E. Train, administrator of the U. S. Environmental Protection Agency, in a 1976 address stated, "We need a national air transportation system which is healthy as well as safe. The evidence is overwhelming that, unless we make that system quieter, both human health and the financial health of the industry will continue to suffer" (p. 17). He then added, "We need no miracles to achieve that kind of system" (p. 17). Now, 20 years later, we can conclude that Mr. Train was wrong—we are very much in need of miracles!

Twenty years later, little has been done to remedy the national problem of aircraft noise. This demonstrates a need to conduct noise research that will yield a good database with which to influence legislators and policy makers. "Policy debates should involve empirical data" (Kaplan, 1995, p. 491). Scientific evidence would enable those few House representatives, who have already expressed an interest in forming a special congressional caucus on

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aviation noise (Kivlan, 1996), to enlist their fellow colleagues in their cause. Data finding a relationship between aircraft noise and health would also be especially helpful in the passage of a bill known as the Quiet Communities Act of 1997 (Lowey, 1997) that calls for the reestablishment of the Office of Noise Abatement and Control. It is hoped that the present study's findings, suggesting a relationship between noise and perceived adverse health effects, serves to encourage the passage of federal legislation that will provide funds to deal with the rapidly growing aircraft noise problem and noise in general.

On the local level, government officials have pledged to use the findings of this report to advocate a saner, national policy on airport noise. This study's findings will also be communicated to the Island's residents at public health fairs, informing them that their appeals to lower the aircraft din have indeed been heard by some interested parties.

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GARY LOCKE
Governor

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June 30, 1997

The Honorable Rodney Slater, Secretary
U.S. Department of Transportation
400 7th Street SW
Washington, DC 20590

Dear Secretary Slater:

The purpose of this letter is to reaffirm the conclusions in the December 20, 1996 letter from Washington Ecology Director Mary Riveland to Mr. Dennis Ossenkop. In that letter, the State of Washington provided reasonable assurance that the proposed airport development project involving the Sea-Tac Airport third runway will be located, designed, constructed and operated so as to comply with applicable air and water quality standards. Since the State provided that assurance, the Port of Seattle and the Federal Aviation Administration have prepared and distributed a supplemental environmental impact statement. With this letter, the State of Washington is again certifying that we will take the necessary actions to assure that the project is built and operated in compliance with applicable air and water quality standards.

The Washington Department of Ecology has reviewed the information contained in the Final Supplemental Environmental Impact Statement for the Proposed Master Plan Update at Seattle Tacoma International Airport and other relevant documents. As a result of that review, the State of Washington reaffirms its earlier findings and hereby provides that there is reasonable assurance that the airport development project involving the Sea-Tac third runway will be located, designed, constructed and operated so as to comply with applicable air and water quality standards, if the Port of Seattle implements the following measures:

1. The Port of Seattle will obtain and comply with all applicable air and water quality regulations, permits and approvals including the air conformity determination required under the Federal Clean Air Act.

2. The Port of Seattle will implement stormwater control measures that comply with the requirements contained in the most current Stormwater Management Manual for the Puget Sound Basin or other equivalent stormwater manuals approved by the Department of Ecology.

3. The Port of Seattle will establish and implement a process for monitoring construction activities to ensure compliance with applicable air and water standards. As part of this

process, the Port of Seattle will perform the following activities after Ecology review and comment:

a) prepare a new runway construction sediment and erosion plan which adheres to available best management practices (BMPs) and procedures which the Port of Seattle will attach to the bid packages when seeking contractors to construct the runway;
b) prepare site-specific sediment and erosion control plans which describe specific BMPs and procedures for individual construction and borrow sites;
c) implement procedures for reviewing mitigation requirements with contractors and subcontractors prior to initiating construction activities;
d) implement procedures for addressing changes in plans and construction activities and resolving disagreements on the interpretation of mitigation requirements, permit conditions, and allowable construction activities; and
e) establish and fund an independent qualified construction pollution control officer to advise on and determine compliance with applicable air and water quality standards.

4. As part of its ongoing efforts to address hazardous substance releases under the Model Toxics Control Act (MTCA), the Port of Seattle will complete a ground water evaluation at the airport as defined in the MTCA Agreed Order which will be finalized after review of public comments. The purposes of this evaluation include:

a) determine ground water flow characteristics and identifying fate and transport mechanisms;
b) modeling to assess potential risks to area drinking water supplies and adjacent surface water bodies; and
c) conducting additional characterization of ground water and/or long-term monitoring as necessary.

5. The Port of Seattle will design and construct the third runway such that the project will not cause changes in the location of the hydrologic divide between Miller and Des Moines Creeks in a manner that alters the average instream flow of either creek. The Port of Seattle will evaluate the feasibility of constructing an aquifer under the third runway as a means to control stormwater flows and minimize impacts on instream flows. The Port of Seattle will submit a report to Ecology describing the results of this evaluation.

As stated in the December 20, 1996 letter, the State of Washington expects that the proposed project will be implemented in a manner that is consistent with mitigation requirements under the National Environmental Policy Act/State Environmental Policy Act, other environmental

monitoring studies, and control measures and permitting actions involving air and water quality at Sea-Tac Airport. In particular, implementation of the proposed project must take into account the air monitoring evaluation being conducted by the Port, the Puget Sound Air Pollution Control Authority (PSAPCA), EPA, and Ecology.

This letter reaffirms and supersedes the December 20, 1996 letter issued by former Ecology Director Mary Riveland. Consequently, this letter constitutes the state certification required under 49 U.S.C. 47101 et seq. All parties are aware that this letter does not constitute a commitment to issue any specific permit. I have directed the Department of Ecology and other state agencies to implement and enforce applicable air and water quality standards in a manner that protects the health of Washington's citizens and the environment.

If you or your staff have questions regarding this letter, please contact Mr. David Bradley (360/407-6907) or Mr. David Williams (425/649-7071).

Sincerely,

Gary Locke
Governor

cc: Tom Fitzsimmons, Department of Ecology
Dennis McLerran, Puget Sound Air Pollution Control Authority
Gina Marie Lindsey, Port of Seattle

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July 8, 1997

Honorable Gary Locke, Governor
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Olympia, WA 98504-0002

Dear Governor Locke:

Your letter to the Honorable Rodney Slater, Secretary of the U.S. DOT dated June 30, certifying that the third runway project at Sea-Tac Airport will comply with all applicable Clean Air and Water Act regulations, is of concern to those citizens living within the area impacted by this expansion project. Over 1,000 C.A.S.E. members believe that this project will cause a threat to the health, safety and welfare of people, the environment and ecosystem and therefore, would like you to withdraw your certification of this project until assurance can be guaranteed, studies are completed and mitigation commitments, timing and funding sources are identified and extracted. One good reason we desire you to withdraw is that the certification is conditioned upon studies of known air and water pollution. The water study has not begun, and the air quality study is not yet even half finished.

Your letter referenced the Federal Clean Air Act, Model Toxic Control Act (MTCA) and the National Environmental Policy Act and you defined policies that the Port would carry out and you assured the Secretary of enforcement by the State Department of Ecology and other State Agencies. A MTCA "Agreed Order" has been entered into between the Port of Seattle and Department of Ecology. The Agreed Order study area does not include what damage might occur to the Highline Aquifer utilized by City of Seattle for drinking water. The airport sits directly on top of this aquifer.

We would like to draw your attention to the fact that the Agreed Order process did not include any public involvement until after it was written in violation of MTCA (WAC 173-340-530, 600). The Department of Ecology has now indicated in a public forum that the "Agreed Order" may be subject to amendment, revision and addendum which can include consideration of WAC 173-200, the State Groundwater law. Any such revision to the agreement could dramatically alter the scope and outcome of the study, ultimately affecting certification of Clean Water Act compliance. Clean Air Act violations may be confirmed through the Memorandum of Agreement air quality studies currently being conducted. Again, the outcome of these studies is unknown and it is blindly premature to guarantee compliance at this time.

Enclosed is a copy of a letter from FAA Attorney Karl Lewis which indicates your certification was necessary due to "the public controversy" arising from delegation of authority to Ecology after publication of the final EIS. We believe that Governor Lowry's unwillingness to certify was inappropriate however, we understand.

We look forward to your timely response to our concerns.

Sincerely,

Debi L. DesMarais, President
C.A.S.E.

cc: Honorable Rodney Slater
Honorable Adam Smith
Honorable Jim McDermott
US Attorney General
USEPA
Northwest Mountain Region FAA
EPA Region X
Washington State Attorney General
Senator Heavey
Senator Patterson
Senator Schow
Representative Keiser
Representative Blalock
Representative Constantine
DOE
PSRC
King County Executive
King County Council
ACC
Port of Seattle

U.S. Department
Of Transportation
Federal Aviation
Administration
Office of Regional Counsel

Northwest Mountain Region
Colorado, Idaho, Montana
Oregon, Utah, Washington
Wyoming

1601 Lind Avenue, SW
Renton, WA 98055-4099
Tel: (425) 227-2161
Fax: (425) 227-1007
Internet Address: Karl.Lewis@faa.dot.gov

July 3, 1997

Debi L. DesMarais
CASE President
31500 1st Ave S #14-103
Federal Way, WA 98003

Dear Ms. DesMarais:

This is in response to your January 4, 1997, letter to U.S. Attorney General Janet Reno, which has been referred to me for a response. Your letter asks whether it is legal under Section 509 of the Airport and Airway Improvement Act [now recodified at 49 U.S.C. § 47106(c)(1)(B)], for the Governor to "defer" the air and water quality certification requirement to another state agency for certification.

Today, the FAA issued its Record of Decision [ROD] for the Master Plan Update Actions at Sea-Tac International Airport. Section V.C. of that ROD addresses the issues raised by your letter. That section states as follows:

> The determination prescribed by this statutory provision is a precondition to agency approval of airport development project funding applications involving a major runway extension or new runway location.
>
> By letter dated December 20, 1996 [see Appendix B to this ROD], the Washington State Department of Ecology, acting under delegated authority from the Governor of the State of Washington, provided this certification, conditioned upon a number of mitigation measures to be undertaken by the Port of Seattle. Pursuant to general principles of agency and administrative law, and absent evidence that delegation is unauthorized or unlawful as a matter of state law, the FAA has interpreted this statute to permit state chief executive officers to delegate this certification responsibility to lower state officials with appropriate subject matter jurisdiction over state air and water quality [see FAA Order 5050.4A, paragraph 47e.(5)(e)]. As described at FSEIS

Appendix F, page F-79, the delegation to the Department of Ecology which occurred in this case was appropriate under Washington State law.

However, given the public controversy which has arisen over this delegation, by letter dated June 30, 1997, (see Appendix C to this ROD), the Governor of the State of Washington further certified that the airport project evaluated in the FEIS and FSEIS will be located, designed, constructed and operated so as to comply with applicable air and water quality standards.

In accordance with established FAA policy and practice, this certification is acceptable notwithstanding the fact that the certification is conditioned upon the completion of specified mitigation measures.

Sincerely,

Karl B. Lewis
FAA Attorney

AR 036162

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

July 24, 1997

Debi L. DesMarais, President
CASE
19900 4th Ave. SW
Normandy Park, WA 98166

Dear Ms. DesMarais:

Governor Locke has asked that I respond to your July 11 letter regarding the Sea-Tac Third Runway project.

Your letter expressed concern that the Governor's certification does not guarantee that the project will meet all applicable environmental standards. The Governor's certification is not state approval of the project. It is a commitment on the part of the state to ensure that environmental laws and regulations will be enforced. As you know, the certification outlines specific environmental goals for the Port of Seattle on this project and set an expected level of performance. State and local governments will oversee environmental standards on the entire expansion project through permits required for air and water quality protection. State certification to the FAA does not mean automatic permit and license approval.

At this time, the Governor will not rescind his certification of the proposed airport development project involving the Sea-Tac Airport third runway. However, should the Port fail to meet the performance conditions of the certification, the state is prepared to withdraw its certification.

I sincerely appreciate you and CASE for your active involvement in meetings with Ecology staff on the Air Study and the Agreed Order. I urge you to continue to participate. It is our objective to assure that the airport is in compliance with all applicable environmental standards.

Sincerely,

Tom

Tom Fitzsimmons
Director

cc: Mike Rundlett, Ecology NWRO Regional Director
David T. Williams, Ecology NWRO Regional Planner
Dave Bradley, Ecology Headquarters

COMPARING THE COST TO A CONVENTIONAL SYSTEM

The extensive fill areas that will be needed to create the proposed new parallel runway present unique opportunities for managing stormwater with a constructed aquifer. A conservative cost estimate for constructing the aquifer system has been created and compared to estimates for construction of a conventional underground vault system (HNTB, 1994). To account for performance uncertainty that may be associated with operation of the constructed aquifer, we increased the amount of storage volume provided by 2 million cubic feet over the requirements (Table 2). To account for uncertainty in construction costs of the aquifer system, we increased the contingency from 30% to 50%. The construction cost of the aquifer system is $3.50 per cubic foot (compared to $9.50 per cubic foot for the vault system [HNTB, 1994]). The total storage cost for the constructed aquifer is 21 million dollars versus 38 million dollars for the vault—a savings of 17 million dollars. Operation and maintenance costs for the conventional system and the aquifer system are anticipated to be comparable.

Table 2: COMPARISON OF CONSTRUCTION COSTS TO A CONVENTIONAL SYSTEM

	Conventional Underground Vaults	Constructed Aquifer
Storage Volume Required (cubic feet)	4,000,000	4,000,000
Storage Volume Provided (cubic feet)	4,000,000	6,000,000
Construction Cost Contingency (% of Cost)	30	50
Per Unit Cost of Construction with Contingency ($/cubic foot)	9.50	3.50
Total Storage Cost ($)	38,000,000	21,000,000

CONCLUSIONS

To address land area constraints and waterfowl hazards, it would be ideal to use an underground stormwater system in managing stormwater from the proposed runway expansion area. Conventional underground concrete vaults are expensive to construct, especially considering the large stormwater storage volumes required for the proposed new parallel runway. The configuration of the proposed new parallel runway would require large quantities of fill. An aquifer, constructed within the fill, could be designed to manage stormwater. Because the technology is not tested, there are risks associated with this novel concept. However, preliminary evaluations indicate that there would be several benefits to managing stormwater with a constructed aquifer. By simulating natural processes of infiltration and groundwater movement, the constructed aquifer would attenuate peak flow rates, extend flow durations, and improve water quality beyond the expected performance of a conventional stormwater system. The discharge from the constructed aquifer could be incorporated into wetland and stream mitigation designs. The seepage discharging from the aquifer outlet would enhance summer base flows in Miller Creek

AR 036164

PEAT MARWICK /TRA

Please Return To
Ann Bonney
via
Minnie Brashers

Final Report

Master Plan Update for Sea-Tac International Airport

Prepared for
The Port of Seattle

September 1985

THE PREPARATION OF THIS DOCUMENT WAS FINANCED IN PART THROUGH AN AIRPORT IMPROVEMENT PROGRAM GRANT FROM THE FEDERAL AVIATION ADMINISTRATION (FAA) AS PROVIDED UNDER SECTION 505 OF THE AIRPORT AND AIRWAY IMPROVEMENT ACT OF 1982. THE CONTENTS OF THIS REPORT REFLECT THE VIEWS OF PEAT MARWICK, WHICH IS RESPONSIBLE FOR THE FACTS AND ACCURACY OF THE DATA PRESENTED HEREIN. THE CONTENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED THEREIN NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH PUBLIC LAWS 91-190, 91-258, 94-393, AND/OR 90-495

Airport land not projected to be needed for Airport or aviation-related uses will be identified in the Master Plan Update, but not considered in detail with regard to its potential for industrial, commercial, or open space development. To further define its use will require additional planning and coordination with King County, the FAA, and the surrounding communities. The Port will adhere to all applicable federal, state, and local rules, regulations, and guidelines (e.g., FAA Order 5100.36 (August 3, 1979) which stipulates that land acquired with federal participation for noise compatibility must be used only for purposes compatible with noise levels).

A site will be designated for the future consolidation of various remote airport maintenance functions, as well as a possible joint airline ground vehicle maintenance facility. The site will be as convenient as practical to the main terminal areas.

AIRFIELD

Port Policy Guidelines

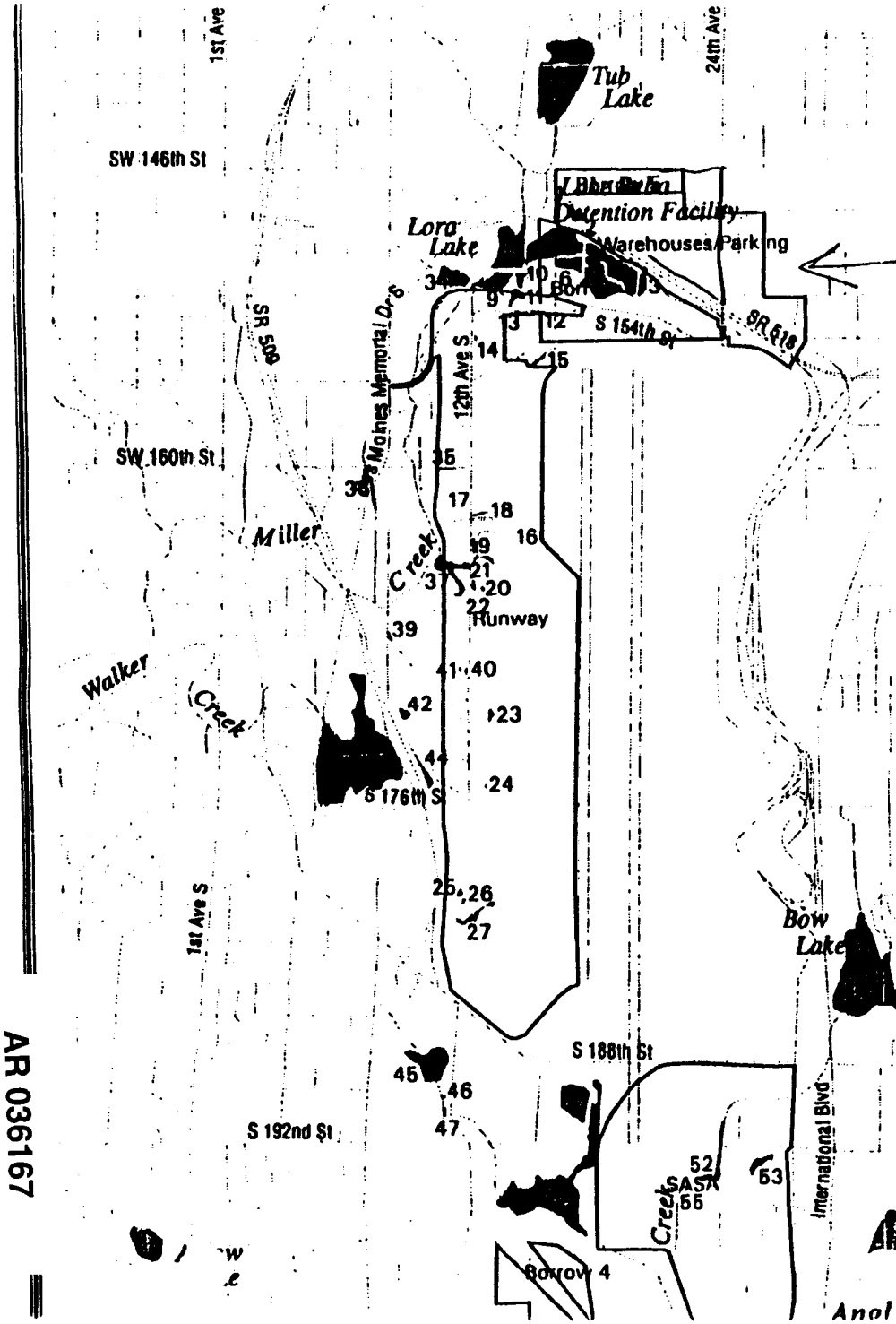
The development of air carrier facilities on the west side of Sea-Ta ll be limited to the area south of S. 176th Street, for reasons of community compatibility. A 100-foot landscaped buffer will be provided between any such development and S. 176th Street. (The terms of any future agreements between the Port and airlines regarding relocating hangars to the west side will be subject to negotiation, as are all Airport leases and operating agreements.)

Master Plan Assumptions

New major runways at Sea-Tac will not be considered, primarily because (a) the existing runway configuration had previously been determined to provide adequate capacity for the planning period, (b) there already is an enormous public investment in the existing runway alignment, and (c) any new runway would have a large environmental impact.

The efficient use of existing structural paving for aircraft parking will be encouraged as long as it is practical.

AR 036166



Palustrine Wetland

Parking EISMPU PG IV. 11-6E-

Potential Construction Impact Area

N
W E
S

Source: Gambrell Urban, Inc. and
Shapiro & Associates, 1994
SASA Final EIS, 1994
King County Sensitive Areas Map Folio, 19
City of SeaTac Wetland and

AR 036167

From: "Janette Barros" <jbarros@loom.com.au>
To: "USA Jack Saporito" <jsaporito@aol.com>, "USA Debi Wagner" <debi@oz.net>
Cc: "xRoss Hutcherson" <ross_hutch@one.net.au>
Subject: Brazil drops waterway plan to avoid hurting Pantanal
Date: Sat, 21 Mar 1998 22:51:26 +1000
X-MSMail-Priority: Normal
X-Mailer: Microsoft Internet Mail 4.70.1085

Jack/Debi,

You might like to pass this one along to our Florida colleagues.

Cheers
Janette

Friday March 20, 5:35 pm Eastern Time

Brazil drops waterway plan to avoid hurting wetlands

By William Schomberg

BRASILIA, March 20 (Reuters) - Brazil has dropped plans to develop its part of a major South American waterway project to avoid damaging the Pantanal wetlands, one of the world's richest ecological areas, a Brazilian official said on Friday.

``Brazil today believes that this project does not have much strategic value and would put the Pantanal at risk,'' said Eduardo Martins, president of the government's Environment Institute (IBAMA).

The Paraguay-Parana Riverway project was launched in 1989 by five South American countries, including Brazil, to promote regional development and spur exports of iron ore and soybeans.

It seeks to create a 2,100-mile (3,400-km) network of waterways linking Brazil, Bolivia, Paraguay, Argentina and Uruguay via the Paraguay and Parana rivers.

But Martins said proposals to drag deeper channels along a 620-mile (1,000-km) stretch of the Paraguay River in Brazil failed to meet Brazilian environmental standards.

The deeper channels threatened to dry out the Pantanal wetlands which lie adjacent to the Paraguay River, he said.

``We are not going to put the Pantanal at risk,'' Martins told a news conference.

Existing traffic along the rivers would continue and the Brazilian government would invest in signaling equipment and other minor works to improve security for barges without altering the beds of the river system, Martins said.

Environmentalists welcomed the news, but said they wanted further details of the project's status before celebrating.

``It is good news if it's true,'' said Glenn Switkes of the International Rivers Network based in Berkeley, Ca.

AR 036168

He said he was concerned that dredging work had already been carried out in some stretches of
the Paraguay River. ``If this means all the work will be halted, it's extremely positive.''

The Pantanal is one of the world's largest remaining wetlands covering an area the size of England.
It is home to an estimated 35 million alligators and thousands of species of bird, butterflies and
mammals, including jaguars and maned wolves.

Every year, during the rainy season, swollen rivers from Brazil's central highlands flood the region.
As the rains ease and the dry season begins, the water gradually flows into the Paraguay River.

The constantly changing environment creates ideal conditions for hundreds of types of fish which
breed in the region and support its wealth of animal life.

Scientists commissioned by environmental groups to check the proposals for the waterway argued
last year that deeper channels in the Paraguay River would cause a slight drop in water levels in the
Pantanal, causing it to dry.

The environmentalists also drew parallels with the Florida Everglades where the United States is
spending billions of dollars repairing ecological damage caused by flood control works.

Source: http://biz.yahoo.com/finance/980320/brazil wat 2.html

From: JSaporito <JSaporito@aol.com>
Date: Fri, 3 Apr 1998 19:27:23 EST
To: debi@oz.net
Subject: Fwd: Brain Drain
X-Mailer: AOL 3.0 for Windows 95 sub 49

Do you want to comment to Janie
Return-Path: <jnewman@geology.sdsu.edu>
Received: from relay29.mx.aol.com (relay29.mail.aol.com [172.31.109.29]) by
air16.mail.aol.com (v40.16) with SMTP; Thu, 02 Apr 1998 17:58:19
-0500
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by relay29.mx.aol.com (8.8.5/8.8.5/AOL-4.0.0)
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by geology.sdsu.edu (8.8.8/8.8.8/SCEC-8.8.8-S4) with ESMTP id OAA03466
for <JMoniot@aol.com>; Thu, 2 Apr 1998 14:59:24 -0800 (PST)
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In-Reply-To: <7b8cfd9c.3523929b@aol.com>
Date: Thu, 2 Apr 1998 14:59:10 -0800
To: JMoniot <JMoniot@aol.com>
From: James Newman <jnewman@geology.sdsu.edu>
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From: James Newman <jnewman@geology.sdsu.edu>
Subject: Re: Brain Drain
Mime-Version: 1.0
Content-type: text/plain; charset=ISO-8859-1

Hi Change,

getting this on a Mac (to email) was a major hassle. But here it is:

To Whom It May Concern:

The group Ramona for Sensible Growth asked me to review a number of areas of the Ramona Airport Master Plan Environmental Impact Report. In reviewing the documents provided, I have a number of concerns regarding the airport expansion and its effects on the city of Ramona and the surrounding areas. After studying the environmental impact statement and the county flood plane maps it seems that the proposed alternatives listed in the EIR are either inadequate or draw erroneous conclusions. Other alternatives that make more sense for the environment and the quality of life in Ramona are not considered. My main areas of concern include the vernal pools associated with the airport and its expansion, wetlands habitat, possible contamination of groundwater supply, and the increased danger of flooding this project may cause.

I have visited the sites of several of the vernal pools adjacent to

AR 036170

the airport and have noted a thin film of possible be hydrocarbons on top of the water in one of the pools. I assume that the source is from the runway as it (the runway) is closer to the vernal pool than the road. The pool in question is near the end of the runway, away from the hanger area. What measures are to be taken to minimize the impact of runoff from the runway into the surrounding fields? Will the proposed mitigation affect the vernal pools water source? Will the proposed mitigation be effective during storm events? This is particularly important where maintenance is taking place, as spills are an inevitable part of any maintenance operation. (I worked on a flight line as a jet electrician in the military.) I am concerned that mitigation to prevent contamination into the low-lying field adjacent to the airport may inadvertently drain some of the vernal pools or other wetlands near to the runway.

I tested four of the vernal pools near the airport for the type of clays present using standard X-ray diffraction techniques. Three of the four pools tested have very similar clay mixtures containing illite/smectite, probably mixed layer clay. However, one of the four is predominately composed of smectite with very different properties from the other three. Pools with different clay types may provide different ecological niches. Have different types of pools been recognized in the Ramona area based on clay type? Do vernal pools with different clay types support different plant communities? Has someone qualified to distinguish the different clays and subtle ecological changes studied this?

Preventing contamination of the pools is important because of the ability of the clays to absorb contaminates. The clays in the vernal pools include smectites or swelling clays. These clays have the ability to absorb contaminates between the layers of the clays making clean up difficult and posing long-term health risks for life in contact with the clays. During arid seasons these micron sized clay particle could become airborne, creating a health risk to those who breadth in the contaminated clays. Have health risks from airborne particles containing carcinogens been assessed? Will increased air traffic and operations increase the contact and risk from carcinogens?

Loss of wetlands habitat is outside of my field (I have degrees in geology and chemistry) but seems obviously significant. Wetlands in a desert are almost by definition rare. The systematic reduction of wetlands habitat throughout California over the years further adds to the rareness of this unique habitat. This airport expansion threatens the wetlands from direct contamination from the airport, destruction from being paved over, decreased surface area for the recharge of the aquifer, increased erosion from the increased flooding and runoff near channels, and possibly destroying some pools and wetlands habitat from the increased sedimentation in the basin.

The frequency of flooding in the Ramona area is likely to increase as a result of this project. This project directly increases the runoff during storms. More importantly, additional businesses, people, and development will live and work in Ramona as a direct result of this project. The additional runoff from all the projects can be very significant. More frequent and widespread flooding is a very real possibility from the long-term development that the airport will bring. Many towns and cities throughout California and the nation have experienced runoff problems from unwise development and growth. Have the impacts that the additional developments the airport will likely bring been included in the flood control measures? If not these need to be addressed before proceeding and modifications of the flood control maps made.

Table 5.12-1 appears to be incorrect. The discharge of the three tributaries adds up to 1120 cubic feet per second (cfs), not 1030 cfs. 1120 cfs is nearly 10% higher than the table states and may alter any conclusions based on 1030 cfs. Additionally, during storm events the streams are likely to be gaining, further increasing the total discharge. The amount of acres in table 5.12-1 is also appears incorrect. The sum of the three sub-basins is 889.5 acres, which is less than the total acres given in the table.

None of the various alternatives of the EIR addresses the restoration of the vernal pools. This creates an impression that the various development alternatives are lfavorablel because some mitigation for the pools is included. However, none of the proposed alternatives suggests restoration of the pools. Alternatives, either for or against the building the extension, could include restoration of the pool. Why is this

option not addressed? Restoration may be necessary for the proper management and maintenance of wetlands in this unique desert habitat. Mitigation plans do not address the removal of exotic species or the management of rare or endangered species in these habitats

In short, this airport expansion seems ill advised. This airport will likely bring rapid development of the Ramona area with it. This project will likely degrade wetlands, increase flooding frequency, and increase contaminates introduce locally. Different types of vernal pools are ignored and restoration in sensitive habitat is not addressed adequately.

Sincerely,

James Newman
5252 Orange Ave #613
San Diego, CA 92115

Port begins runway mitigation

'ort officials claim the and purchase is merely potential mitigation'

The Times-News Saturday, December 16, 1995

y Marc Stiles
AFF WRITER

SEATTLE—Even though comple- on of the third runway environ- ental review process is a month vay, the Port of Seattle is spending l.58 million to mitigate lost wetland.

Port commissioners on Tuesday vot- l to buy 69 acres of land in Auburn to ake up for wetlands that will be lled if the third runway is built at a-Tac Airport.

The airport wetlands are along Mill- and Des Moines creeks. Various groups are concerned about replacing them with wetlands that are not even in the same basin.

The Auburn land is adjacent to King County's Green River Park. Acquisition of the property involves a pending foreclosure on a bankrupt partnership. The general partner, Robert Steinberg, now is a trustee acting on behalf of the P. Hendley Estate.

Pat Hendley, according to Auburn Mayor Charles Booth, is a builder who owned quite a bit of land" and who "went into receivership." Booth said Hendley once lived in Auburn but is unsure where he resides now.

Pressed by the wind storm that was barreling toward Seattle, commissioners made quick work of most of their meeting agenda. They were poised to

See Buy, page A3

AR 036173

Continued from page A1

purchase the property without a staff briefing and without discussion.

Commissioner Jack Block of Normandy Park objected. "Wait a minute, wait a minute," he called out as commission President Paul Schell quickly read the proposed motion.

Block emphasized that even though "at first blush" the action appears to be an important step toward approving the runway, it is not. He said that is why he voted with the rest of the commission to buy the land even though he opposes runway construction.

Block said after the meeting that the purchase price of 50 to 60 cents on the dollar was too good to pass on. He added that if the runway isn't approved, the Auburn land could be used for off-site mitigation of other projects, such as development on Harbor Island.

NONETHELESS, the agenda memo from Port Aviation Director Gina Maria Lindsey states the money is for "off-site mitigation for the proposed fill of approximately 10 acres of wetlands at Sea-Tac..." The memo also says the purchase and closing costs will be paid for out of the fund for aviation capital improvement projects.

Airport critics are surprised by the Port's action, and Auburn officials are wary of it.

"We've told the Port we're not anxious to have the obligations of the airport mitigated in Auburn," said city Planning Director Paul Krauss.

He added the 69-acre tract is mostly an upland flood plane and contains some wetlands. Krauss said he is concerned the Port would make most of the property wetlands.

Ken Reid, chief operating officer for the anti-third runway Airport Communities Coalition (ACC), noted the environmental impact statement (EIS) process isn't complete. He wonders how the Port can buy the land when it has not officially answered concerns about replacing airport wetlands with marshes in a different basin.

"It's all kind of a mystery to me," Reid said.

Barbara Hinkle, the Port's senior environmental management specialist, said the commission's action is merely "a step toward potential mitigation."

Under the formal review process, citizens and government officials were allowed to comment on the draft EIS. The Port and FAA will respond to all comments in the final EIS, which Hinkle said the Port anticipates releasing on Jan. 26 or 27.

> "We've told the Port we're not anxious to have the obligations of the airport mitigated in Auburn."
>
> — Paul Krauss
> Auburn planning director

Several public and private groups submitted formal comments on the wetland proposal in the draft EIS. The plan is to relocate the wetlands to Auburn because the FAA will not certify airports if there is wildlife habitat, such as a marsh, within 10,000 feet of their borders.

"We strongly disagree with the proposal to perform wetland mitigation outside of the affected stream basins," Robert S. Derrick, director of King County Department of Development and Environmental Services, wrote in his agency's comments.

THE ACC and city of SeaTac expressed similar concerns in their EIS responses.

Derrick added that the argument about the FAA not certifying airports with nearby wetlands holds no water. He noted Sea-Tac is certified, yet has wetlands under the northern flight approach.

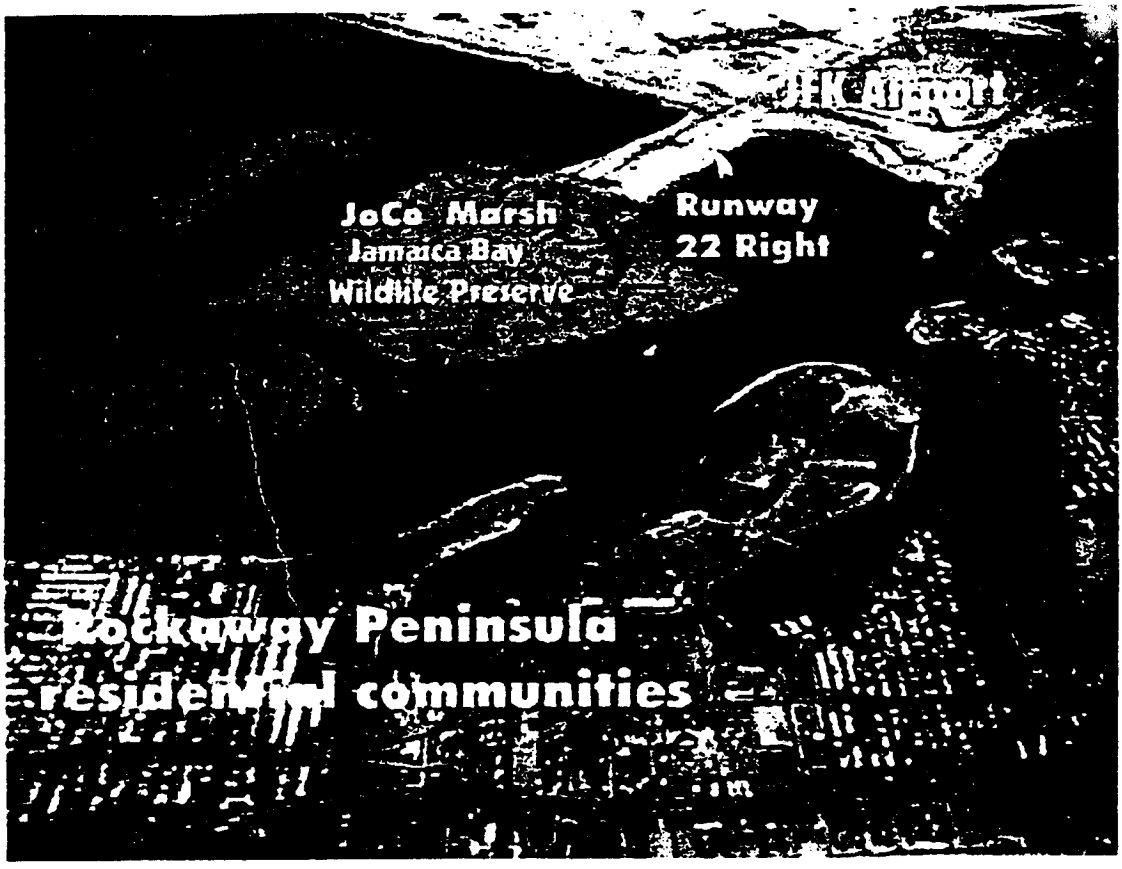
The marshes have "substantial" bird populations that do not create safety problems for aircraft operation.

There are numerous opportunities to perform wetland creation or enhancement within the basins of Miller and Des Moines creeks, Derrick wrote.

"These small urban streams would benefit...to a much greater degree from wetland mitigation than the proposed off-site mitigation on the Green River."

AR 036174

Page 4 - Rockaway Press - April 26, 1990


JFK Airport
JoCo Marsh
Jamaica Bay
Wildlife Preserve
Runway
22 Right
Rockaway Peninsula
residential communities

Birdstrikes and JFK Airport Runway 22 Right

Why Is The FAA Endangering Lives By Using It?

This is a picture of the 1975 World Airways plane which attempted to take off from JFK when it ingested a large number of gulls into the number three engine which EXPLODED! As it had time to stop on the runway, nobody was killed. However, the plane was totally destroyed.

For years the FAA has been endangering the lives of the flying public and Rockaway residents by using a runway which has a large wildlife refuge salt marsh (JoCo Marsh) at its tip.

JFK Airport in New York City is one of the most dangerous airports in the world when it comes to "birdstikes" (the hitting or ingesting of a bird by a plane). JFK Airport alone accounts for almost one quarter all the U.S. birdstike incidents. The danger of flying over the bird preserve is particularly hazardous for the supersonic Concorde which has engines not able to withstand birdstrikes as well as newer planes.

Only last year TWO Concorde engines were set on fire from JFK birds as a Concorde landed. Despite this obvious danger the FAA continues to use the dangerous Runway 22R for most of the Concorde departures! As the spring and fall migration season and summer nesting season nears the possibility of a plane taking off and having its engines shut down by bird ingestion increases.

We have warned the FAA about this in an Environmental Impact Study we forced the federal government to do before they started their annual shooting.

Some have even suggested that the the FAA, the Airlines and the Port Authority WANT a plane to crash from bird ingestion flying over JoCo Marsh. This would give them an excuse for completely destroying the marsh and extend Runway 22 Right even further out into Jamaica Bay. This extension is wanted to handle future heavier cargo and passenger planes.

With the increasing use of two engine planes (Boeing 757,767 and 777), the probability of a

oz.net

Sense Networking: Queued Mail (debi)

Message 51:
From PAUL.DE.CLERCK@milieu.xs4all.nl Tue Jan 20 11:07:55 1998
From: "Paul de Clerck" <Paul.de.Clerck@milieudefensie.nl>
Organization: Vereniging Milieudefensie
To: "The right price for air travel campaign" <airtax@milieudefensie.nl>
Date: Tue, 20 Jan 1998 17:34:39 +0100
Subject: First NOx charge in the EU at Hamburg airport
Reply-to: pauldc@antenna.nl
Priority: normal

Dear friends,

I gladly forward you 2 articles from ENDS Daily. One is very good news, Hamburg Airport is going to introduce an NOx charge and Zuerich seems to be the good example for them.
The other article is an alarming research about the amount of peole dying because of air pollution.

Best wishes,

Paul de Clerck
FoE Netherlands

Emission charges plan for Hamburg airport
ENDS Daily - 19/01/98

Hamburg's Fuhlsbuettel airport is set to relate aircraft landing fees to their emissions levels, the first airport in Germany and one of the first in Europe to do so. The Hamburg city parliament last week unanimously approved a Green Party proposal to introduce emissions-weighted charging at the airport. The scheme is based on a charging model introduced by Zurich's airport last year, the first European airport to do so (ENDS Daily 29 August 1997). A spokesperson for the Hamburg Economic Authority, which must approve the measure if it is to take effect, told ENDS Daily today that further developments were likely in the next month. The proposal appears to be in line with a white paper on variable aircraft landing charges released last year by the German federal transport ministry (ENDS Daily 19 September 1997). Hamburg Green Party spokesperson Dettler Grube told ENDS Daily that the European reaction to the Zurich model could be influential in determining whether or not Germany adopts such a system at other national airports. Fuhlsbuettel is a medium-sized airport, which last year served some 8.6 million passengers.

Contacts: Fuhlsbuettel airport, tel: +49 40 50 75 25 13; City of Hamburg (http://www.hamburg.de), e-mail: hamburg@sk.fhhnet.dbp.de.

UK study quantifies air pollution deaths

Evergreen Lake

The memories still flow through

by Brien Lautman

The northern shore of Evergreen Lake is now a grassy slope bordering Highway 518.

The view from South 154th Street near 24th Avenue South is nothing special.

Instead of willow trees, brick homes and landscaped lawns, the area now boasts only speeding automobiles, roaring planes and acres of concrete.

Evergreen Lake succumbed to Sea-Tac Airport's growing pains in the late 1960s. Lakeside homeowners sold their properties to the Port of Seattle in the summer of 1968. By 1969 the lake was abandoned. By the early 1970s, the lake was filled.

Perimeter Road, an access street to Sea-Tac cargo and passenger terminals, now crowns the mound of dirt that covers Evergreen Lake. Below, the springs that fed the tiny body of water still flow.

Lake Reba, located in the north clear zone under Sea-Tac's orange landing structure (just south of Highway 518), takes in Evergreen's runoff.

ORIGINALLY, the lake was raised from a peat bog. Ernest Peterson, his son Paul, his daughter Florence and her husband, Emmanuel Meador, bought the marshy, 10-acre property shortly before World War II.

Florence Meador explained that the two families didn't plan on finding a freshwater lake beneath the peat.

"After we got a lot of it out, we found that the water never got stagnant," she said. "There were springs all around it. We eventually went to Bellingham to a hatchery and we stocked the lake with fish."

Florence's son, the Rev. Gordon Meador, said the lake was stocked with crappies and black bass mostly.

"The lake was stocked mainly with bass in 1946," he said. "We got the fish from a private hatchery up near the Bellingham area."

Ernest Peterson started pulling peat from the land in the early 1940s, Florence remembered. She said he did much of the work himself until her brother and husband came back from the war.

"When the war came, my brother and husband left," she said. "So, my dad got drag lines in and started taking the peat out. He sold it to gardeners in the area. But when the war was over everyone pitched in and helped."

According to Florence's son, the Rev. Gordon Meador, the lake was dredged of peat until a few years before the Port stepped into the picture.

"It was an ongoing process," he explained. "We never did find out how deep the lake actually was. We just kept taking the peat out."

The Petersons and Meadors built the first homes on the lake in 1946. Ernest erected a duplex along the eastern shore, while Florence and Emmanuel built a brick structure on the north end.

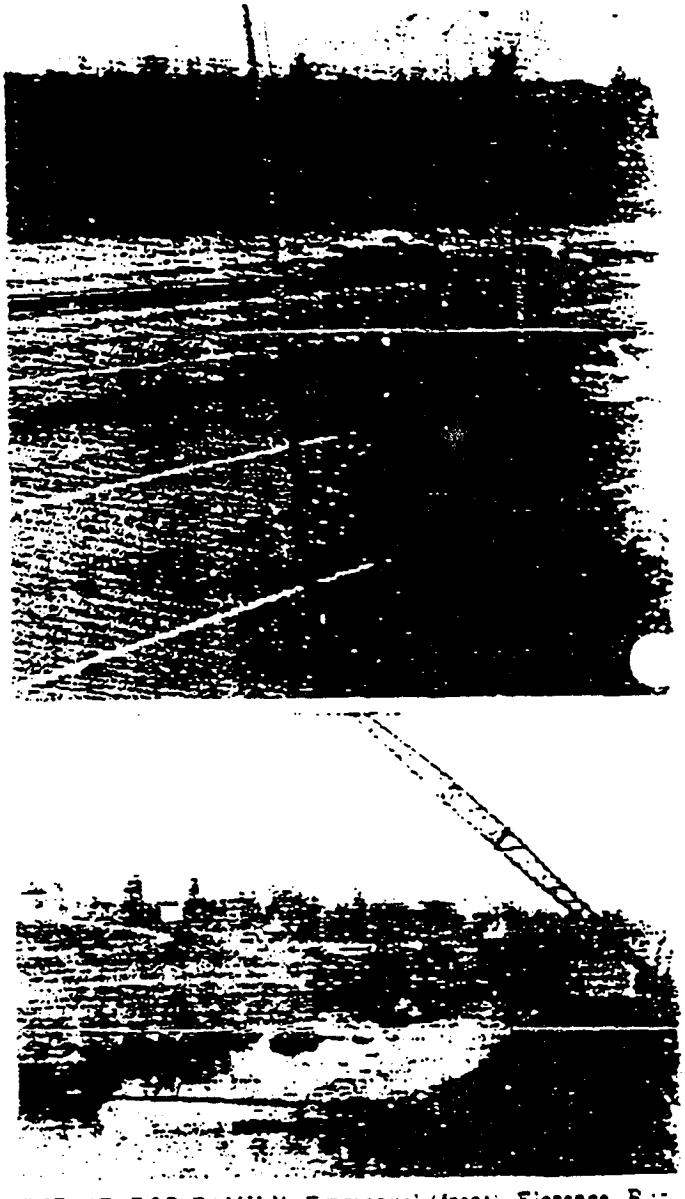
Gordon Meador and his wife Ruby, also built a brick home on the lake's north end.

IT WASN'T until 1958 that Harlan Grohs and his wife, Ida, bought property on the lake's western shore. Harlan's brother, Harvey, and his wife, Wilma, purchased shore property in 1961. Seven houses lined the lake, with four of those belonging to Harlan, who leased the buildings out.

Evergreen Lake was not large— it measured approximately 200 feet across and 900 feet in length— but its residents enjoyed it.

"It was like a little resort to us," Florence Meador said. "It was a sad day when the airport came and said, 'We want your place.' We were talking back and forth (with the Port) for a couple of years, but we found we couldn't fight the government."

"I didn't appreciate going," Ida Grohs said. "We were quite content with the home we had. We'd done a lot of landscaping, and our kids went to Highline



THE MEADOR FAMILY, Emmanuel (front), Florence, Rut[illegible] Gordon, look south across Highway 518 where Evergreen Lake existed. The inset photo, taken sometime in the late 1940s, show[illegible]

High School. And in the winter we would have hundreds of people on the lake ice skating. They came from all over.

I guess you could say we never had anything that compare with having a lake ran down to the water," Ruby Meador said. "W that place."

AR 036179

13 10/24/1996 Article:30799

NASA testing GPS-based airport taxiway navaids

NASA's Ames Research Center is testing Global Positioning System-based technology that gives pilots a virtual view of fogged-in taxiways to reduce weather delays at the nation's airports.

Developed as part of the agency's $100 million Terminal Area Productivity (TAP) program, the technology combines GPS positioning updates with airport layout databases to navigate on the ground even when visibility is poor. Known as Taxiway Navigation and Situation Awareness (T- NASA), the system is to be presented by Ames researchers today at the World Aviation Congress and Exposition in Los Angeles.

The system feeds position data to pilots with three cockpit displays. An electronic map of the taxiways on the instrument panel shows the position of all aircraft, while a head-up display gives the pilots virtual cues on cleared turns and the runway's edge. Traffic warnings are given with a 3-D audio system that sounds like it is coming from the direction of the traffic.

With the system, NASA hopes to be able to increase the ability of airports to handle a projected 32% increase in traffic over the coming decade. Researchers also believe the system will enhance safety of surface operations in bad weather.

"There are other efforts to improve airport landing efficiency in low- visibility conditions due to bad weather, but without new displays and procedures for taxi, we feel that taxi operations may produce an airport traffic bottleneck," David Foyle, technical leader of the T-NASA research and development team at Ames, said in an agency press release on the technology. "Airport taxiing is extremely difficult in low-visibility weather conditions at unfamiliar airports, and at large complex airports."

Ames plans a full-mission simulation of the technology next year at its Crew Vehicle Systems Research Facility, NASA said. Ames and Langley Research Center also plan a flight demonstration of some TAP components next summer at Atlanta's Hartsfield International Airport.

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Evergreen Lake: A fond memory for a few

Continued from C6

Ruby and Florence and Emmanuel, live in separate residences on Queen Anne Hill. Ernest and Paul Peterson have since passed away.

EACH FAMILY still recalls the good times shared as neighbors on the lake. They remember the fish their children caught. They remember the ice skating gatherings, the landscaped lawns and the willow trees that lined the shores.

But eventually, each family keyed on one element of Evergreen Lake— its demise. They say "progress" killed the lake. They say they couldn't fight the Port's expansion.

"How can you fight it?" Harvey Grohs asked. "It would've probably cost too much time and money."

In a published article, Burien resident Roy Bruce summed up the feeling of those who lived on Evergreen Lake.

Good bye, little lake. It was nice knowing you.

You didn't die alone. Your neighbors were routed out like enemy peasants, by the grace of the irrestible invader...Your invader...Your shores became littered with old tires, oil drums and broken concrete. Your waters turned yellow with clay and suddenly you were gone.

You are not the first to go, nor will you be the last of your kind to go. But for me, you were a little something different. You were the only lake on the way home.

So long, Evergreen Lake, you who stood in the way of progress. I'll not forget you.

AR 036181

FAA, Industry Moving To Next Phase Of Precision Runway Monitor Testing

FAA and its industry partners have completed the first phase of testing on the precision runway monitor (PRM) at Minneapolis-St. Paul International Airport and are preparing to test the system in more limited visual flight rules (VFR) conditions. The PRM, now commissioned only at Minneapolis-St. Paul, is designed to increase capacity by making it possible to conduct simultaneous approaches at airports with closely spaced parallel runways separated by less than 4,300 feet. The system provides one-second updates to air traffic controllers instead of the four-second updates from conventional airport surveillance radars. The system is slated for commissioning eventually at St. Louis, New York Kennedy, Philadelphia and Atlanta.

So far, testing has been limited to VFR weather conditions, with clouds higher than 5,000 feet and visibility of more than five miles. The next phase will involve 1,000-foot ceilings and three-mile visibility. After that, the testing will move into Category 1 IFR weather, with 200-foot ceilings and one-half-mile visibility. If further testing is successful, the PRM should be commissioned at St. Louis by late this year and at New York Kennedy by late next year. Philadelphia could get PRM by mid-2000 and Atlanta when its fifth runway is completed.

DEPARTMENT OF THE ARMY
SEATTLE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-3755

REPLY TO ATTENTION OF

NOV 24 1997

Regulatory Branch

Ms. Barbara Hinkle
Port Of Seattle
Seattle-Tacoma International Airport
Post Office Box 68727
Seattle, Washington 98168

Reference: 96-4-02325
Seattle, Port of

Dear Ms. Hinkle:

In response to a complaint, on November 12 and 14, 1997, my staff inspected Port of Seattle (Port) property north of State Route Highway 518, west of the North Employee parking lot, currently under construction, at SeaTac, Washington. The parking lot is part of the Port's Master Plan Update - Third Runway Project. My staff observed that sediment and hogfuel was deposited in Wetland 2 (sketch enclosed). On November 21, 1997, my staff reinspected the site and observed that the sediment and hogfuel has been removed from Wetland 2.

Regulations and guidelines implementing our permit program under Section 404 require that you obtain a permit prior to the discharge of any dredged or fill material into waters of the United States including wetlands. Because this material has been removed, there is no violation of Section 404 of the Clean Water Act and no enforcement action is required.

Your consultant inquired if hay should be spread on the restored wetland area. We see no need to spread hay in the wetland area. However, you may place hay bales on the upland side of the silt fence if necessary.

Nothing in this letter shall be construed as excusing you from compliance with State and local statutes, ordinances, and regulations which may pertain to this work. And nothing in this letter shall be construed as approval for any portion of the Port's proposed Master Plan Update - Third Runway Project. If you have any questions regarding this letter, please contact Ms. Kristina Tong at telephone (206) 764-6913. If you have any questions regarding the processing of your permit, please contact Mr. Jonathan Freedman at telephone (206) 764-6905.

Sincerely,

Ann R. Ulrich

for Thomas F. Mueller
Chief, Regulatory Branch

Enclosure

Copies Furnished:

Mr. Jim Kelly
Parametrix, Inc.
5808 Lake Washington Boulevard Northeast
Kirkland, Washington 98033-7350

Ms. Barbara Stuhring
24828 - 9th Place South
Des Moines, Washington 98198-0727

Ms. Kathleen Vermeire
City of Normandy Park
801 Southwest 174th Street
Normandy Park, Washington 98166

Ms. Eileen Hileman
Environmental Protection Agency
Mailstop ECO-083
1200 - 6th Avenue
Seattle, Washington 98101-3188

Table IV.21-2 (Page 1 of 2)
SEA-TAC AIRPORT RISK SITES REPORTED CONTAMINANTS AND COMPOUNDS

Map ID	Site	Confirmed Compounds	Suspected Compounds
1	Furnace Doctors	Petroleum Products	
2	Chevron USA SS 94312	Petroleum Products	
3	Nick Raffo Garbage	Petroleum Products	
4	Willies Texaco	Petroleum Products	
5	AFP Partners	Petroleum Products	Halogenated Organic Compounds, EPA Priority Pollutants Metals, Non-Halogenated Solvents
5	Sea-Tac Distribution Center	Petroleum Products	
6	Fuel Farms	Petroleum Products	
7	Lee's Sanitation	Petroleum Products	
8	Sea-Tac Airport	Halogenated Organic Compounds, Petroleum Products, Non-Halogenated Solvents	EPA Priority Pollutants, PCBs
9	Highline School District	Petroleum Products	
10	UNOCAL Station	Petroleum Products	
11	Weyerhaeuser	Petroleum Products	
12	Airborne Express	Petroleum Products	
12	Airborne Freight Corp.	Petroleum Products	
13	BP 03142	Petroleum Products	
13	Budget Rent-a-Car	Petroleum Products	
13	Exxon Station #7-3287	Petroleum Products	
13	Quick Stop Tune Lube	Petroleum Products	
13	Sea Tac Gull #263	Petroleum Products	
13	Thrifty Rent-a-Car	Petroleum Products	
14	Budget Rent-a-Car	Petroleum Products	
15	Burien Fuel	Petroleum Products	
16	Chevron 92259	Petroleum Products	
17	Delta Airlines	Petroleum Products	
17	Marriott In Flite Services	Petroleum Products	
18	Sea-Tac Alaska Air Hangar Bldg.	Petroleum Products	
19	Highline Water District Equip. Yard	Petroleum Products	
20	Minchew Property	Petroleum Products	Halogenated Organic Compounds, EPA Priority Pollutant Metals, Metals-Other, Non-Halogenated Solvents
21	Sea-Tac/NW Airlines Fuel Farm	Petroleum Products, Non-Halogenated Solvents	
22	SAFECO Environmental (SAFECO Solvent Treatment, Inc.)	not reported	
23	Sunset Park/Tub Lake	EPA Priority Pollutant Metals, Petroleum Products, Non-Halogenated Solvents, PAH	Halogenated Organic Compounds
24	Texaco SS 632321419	Petroleum Products	
25	Dollar Rent-a-Car	Petroleum Products	
25	The Southland Corp.	Petroleum Products	
25	UNOCAL Station #4871	Petroleum Products	
26	Airport Drayage Co.	Petroleum Products	
27	ASRD Sea-Tac International Airport	Petroleum Products	

Port of Seattle

September 22, 1995

Ms. Barbara H. Stuhring
24828 9th Place South
Des Moines, WA 98198

Dear Ms. Stuhring:

I received your recent letter and have looked into your concern regarding Stage 2 jet operations at Sea-Tac.

In reviewing the fleet mix reports for the first and second quarter of 1995, I found that you are absolutely correct in stating that the percentage of Stage 3 operations has increased, while the percentage of Stage 2 operations has decreased, when compared to the same time period last year (see attached fleet mix reports). We are very pleased to see the steady increase toward quieter aircraft, and believe that having a fleet comprised of 83.6% Stage 3 aircraft is a positive sign that our noise budget and nighttime restrictions are working.

As you note in your letter, the actual number of stage 2 operations has increased as Sea-Tac has gotten even busier, but the overall percentage does continue to decline. In the second quarter of this year alone, Sea-Tac experienced 2,294 more flights. Our records indicate 4608 Stage 2 operations in the first quarter, and 4826 in the second quarter--an increase of 218, for the three month period or approximately 2.4 operations each day.

It is important to recognize that airlines are not required to fly a specific number of Stage 3 aircraft, but they must stay within their noise allocations for the noise budget. This is generally accomplished by flying fewer Stage 2 aircraft.

I understand your frustration, and can appreciate that Sea-Tac's steady progress toward quieter aircraft does not eliminate the noise generated by an even busier airport. However, by implementing the nighttime restrictions, the Port has been able to limit the number of Stage 2 aircraft during the most sensitive nighttime hours. Families will get even more relief when the nighttime hours expand on October 1st to 10:00 p.m. - 7:00 a.m.

P.O. Box 1209
Seattle, WA 98111 U.S.A.
(206) 728-3000
TELEX 703433
FAX (206) 728-3252

REPORT NUMBER: OP0146-01
DATE-TIME RUN: 10/18/95-09:15

SEATTLE-TACOMA INTERNATIONAL AIRP
TURBOJET FLEET MIX REPORT
THIRD QUARTER 199[illegible]

AIR CARRIER	STAGE 2/3 LANDINGS	% STAGE 2	% STAGE 3
AEROFLOT RUSSIAN INTL A/L	133	21.1 (28)	78.9 (10
AIRBC, LTD.	22	.0 (0)	100.0 (2
AIRBORNE EXPRESS	41	.0 (0)	100.0 (4
ALASKA AIRLINES	9,927	3.0 (298)	97.0 (96
AMERICA WEST AIRLINES	556	.0 (0)	100.0 (5
AMERICAN AIRLINES	1,727	.1 (2)	99.9 (17
AMERICAN INT'L AIRWAYS	134	100.0 (134)	.0 (0
ASIANA AIRLINES	40	.0 (0)	100.0 (4
ATA	86	40.7 (35)	59.3 (5
BRITISH AIRWAYS	92	39.1 (36)	60.9 (5
BURLINGTON AIR EXPRESS	67	.0 (0)	100.0 (6
CARGOLUX	36	.0 (0)	100.0 (3
CASINO EXPRESS AIRLINES	18	100.0 (18)	.0 (0
CHARTERS---ALL CARGO ONLY	5	20.0 (1)	80.0 (4
CHARTERS---MISCELLANEOUS	3	100.0 (3)	.0 (0
CHINA EASTERN	113	.0 (0)	100.0 (113
CONTINENTAL AIRLINES	662	.2 (1)	99.8 (661
DELTA AIR LINES, INC.	1,816	29.5 (536)	70.5 (1[illegible]
DHL AIRWAYS, INC.	64	.0 (0)	100.0 (64
EMERY WORLDWIDE	147	66.0 (97)	34.0 (5
EVA	270	.0 (0)	100. [illegible]
EVERGREEN INTERNATIONAL	145	.0 (0)	100. [illegible]
EXECUTIVE FLIGHT, INC	3	.0 (0)	100.0 (3
EXPRESS ONE	12	16.7 (2)	83.3 (10
FEDEX	379	19.3 (73)	80.7 (30
GREAT AMERICAN AIRWAYS	16	56.3 (9)	43.8 (7)
HAWAIIAN AIRLINES, INC.	93	.0 (0)	100.0 (9
HORIZON AIRLINES	2,825	100.0 (2825)	.0 (0
KITTY HAWK AIRCARGO, INC.	1	100.0 (1)	.0 (0)
MARKAIR	170	48.2 (82)	51.8 (88
MARTINAIR HOLLAND	43	.0 (0)	100.0 (43
NORTHWEST AIRLINES	2,179	4.6 (100)	95.4 (20
RENO AIR	979	.0 (0)	100.0 (9
SAS	92	.0 (0)	100.0 (9
SOUTHWEST AIRLINES	2,533	1.8 (46)	98.2 (24
SUN COUNTRY	19	100.0 (19)	.0 (0
TWA	666	.0 (0)	100.0 (66
UNITED AIRLINES	5,452	12.9 (703)	87.1 (47
US AIR	593	.0 (0)	100.0 (5
VISCOUNT AIR SERVICE	11	100.0 (11)	.0 (0
WESTERN PACIFIC AIRLINES	92	.0 (0)	100.0 (9
WEYERHAEUSER COMPANY	70	44.3 (31)	55.7 (3
TOTAL ALL CARRIERS	32,332	15.7 (5091)	84.3 (27
TOTAL 'ALL CARGO' FLIGHTS	1,239	35.3	64.7

Total # stage 2/3 landings increased 3048 (10.5%), stage 2 increased 288 (5.99%)

SOURCE: Monthly landing fee reports and follow-up with carriers.

AR 036187

Port of Seattle

May 21, 1996

Ms. Barbara Stuhring
24828 - 9th Place South
Des Moines, Washington 98198

Dear Ms. Stuhring:

Tom Hubbard of the Port of Seattle has requested that my office prepare a response to your May 4, 1996 letter concerning the reference to treatment of glycols by the IWS at Seattle-Tacoma International Airport contained in Appendix R of the Master Plan Update Final Environmental Impact Statement. The final sentence in the first paragraph of the response to comment R-13-15 (Volume 4, Page R-173) "Most of the anti-icing and deicing fluids used during airport operations are contained and treated by the Port's Industrial Wastewater System" is incorrect. You are correct in stating that glycol is not treated and removed by the Industrial Wastewater System. The sentence in this response to comment should have read as follows: "Most of the anti-icing and deicing fluids used during airport operations are contained but not treated by the Port's Industrial Wastewater System" (*underlined works reflect the correction*).

Based on your earlier correspondence as well as this follow-up, we have recommended to the FAA that the Record of Decision include this letter to reflect the correction to the Final EIS. Again, thank you for bringing this to our attention.

Sincerely,

Barbara Hinkle

Barbara Hinkle

Senior Specialist II
Health, Safety & Environmental Management

cc: Dennis Ossenkop, FAA
Tom Hubbard, Port

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As several of the commentors noted, the usage of the proposed new parallel runway would result in an increase in the number of runway crossings. These commentors expressed concerns about safety. As is discussed in Chapter IV, Section 7 "Human Health", subsection (5) "Aircraft Accidents", the issue of additional runway crossings was reviewed extensively. The proposed new parallel runway would result in aircraft landing on 16X being required to taxi across existing Runways 16R/34L and 16L/34R to access the terminal area, increasing the number of runway crossings by about 44 percent. While those aircraft would be delayed in crossing runways, the delay reduction benefits of the second arrival stream far outweigh the delay from crossings. The delay was incorporated into data presented in the table above. As is described in the EIS, the additional runway crossings would increase the risk of a runway incursion by about 21 percent, increasing the annual occurrence of a runway incursion from 1.4 in 1993 to about 1.7 in year 2020. However, the FAA's air traffic personnel have indicated that the FAA has procedures for minimizing incursions though improved airfield signage and communications between pilots and air traffic control personnel.

Comment R-3-24: Several comments were received requesting clarification of the capacity of Sea-Tac with and without the proposed new parallel runway. Such comments were received from the Airport Communities Coalition, Mr. Bullard (Queen Anne Community Council), Regional Commission on Airport Affairs, Mr. Dinndorf (Puget Sound Regional Council), Mr. Scarvie, and the U.S. Environmental Protection Agency.

Response: As is described in the introduction to this appendix, the annual service volume capability associated with the existing Sea-Tac airfield is about 380,000 annual operations. However, as the Flight Plan demonstrated, the existing capacity of the airfield can be stretched to about 460,000 annual operations. During the Flight Plan Study, the annual service volume associated with the proposed third parallel runway was calculated to be about 480,000 annual operations.

Comment R-3-25: The U.S. Environmental Protection Agency suggested that the proposed new runway be evaluated as a departure runway instead of as an arrival runway.

Response: Inefficient airfield operations occur during poor weather conditions. Because the runways at Sea-Tac are only 800 feet apart, the existing airfield only allows a single arrival stream during VFR2 and IFR. As a result, the number of aircraft operations is currently reduced during poor weather conditions. Presently, simultaneous departure streams can occur during poor weather conditions. However, departure streams are not as sensitive to poor weather conditions as the arrival streams. Therefore, the purpose of a new parallel runway is to reduce poor weather delay, which predominantly affects arriving aircraft.

Although a third runway at Sea-Tac would primarily be used for arrivals, it would accommodate a limited number of departures during peak departure periods and other circumstances required to maintain flexibility in the traffic flow at the Airport. Consideration was given to assessing the usage of the runway primarily for departures. However, usage of this runway for departure is expected to be less than 5 percent of the year and thus, an extensive analysis of use for departures would substantially overstate what is expected to be the likely actual operation. The impact analysis includes the expected use of the runway for these departures. Additional discussion concerning the use of the runway is provided in response to comments R-6-13 and R-10-15.

Comment R-3-26: A number of commentors requested clarification of why the 600 foot extension to Runway 34R is needed. Commentors noted that the heavier aircraft (B747) could use the proposed new parallel runway. Comments of this nature were received from Mr. Peyton (Ravenna-Bryant Community Association), Regional Commission on Airport Affairs, Southwest King County Community Group, and Mr. Webb.

Response: The two aircraft types using Sea-Tac that require the greatest runway length are the B-747-200 and the B-747-400, when operating at maximum gross takeoff weight. These aircraft are commonly used in long-haul all-cargo service throughout the world. They require a runway length of 12,500 feet

AR 036189

elsewhere on the Fort. As with the preceding site, populations of western gray squirrel, western bluebird, and white-top aster have been reported in the vicinity of the Loveland site.

The Olympia/Blake Lake site provides habitat for the spotted frog and the Olympic mud minnow. The option area is also used as a diurnal migration route to and from the pastures and wet meadows that extend along the Black and Chehalis Rivers. Gulls are also attracted to the area for use as feeding grounds during the rainy season.

Remote Site

The Moses Lake site is significantly disturbed by a large, existing airport on the north edge of the town of Moses Lake. With regard to vegetation and wildlife, this site is quite different from the other sites under consideration. It is located in the eastern part of the state, in the rain shadow of the Cascade Mountains. Sagebrush is the dominant natural vegetation in this semi-arid region, but stream channels and marshes support a variety of riparian and emergent vegetation. However, there are no wetlands located on or immediately adjacent to the existing airport. Much of the land around Moses Lake has been converted to irrigated agricultural use, with a corresponding decrease in the diversity of mammals and birds that are likely to be present. The Gloyd Seeps Unit of the North Columbia Basin State Wildlife Area, which includes extensive wetland areas, is located about one mile northeast of the site, and the Moses Lake reservoir is about one mile southwest of the site. These areas support substantially greater populations of wildlife, particularly migratory waterfowl, than the surrounding shrubland and agricultural lands.

4.6.3 Significant Impacts

Potential impacts to wetland, wildlife and vegetation and overall changes in the natural environment would vary for the different site options. In general, development of new site options would cause more impacts to the natural environment and greater relative change.

The Puget Sound region is home to several species of threatened or endangered plants and animals, some of which may occur on one or more of the site options evaluated in this EIS. The confirmed existence of an endangered species or designated critical habitat for an endangered species would require additional site-specific biological investigations to assess the potential impact on the species. A potential for a significant impact on an endangered or threatened species might eliminate a site from further consideration. Impacts on wildlife on any site will depend on the extent and types of habitat that would be disturbed and on the availability of comparable habitats within a reasonable distance of the site.

Water quality in wetlands and fish-bearing streams can also be impacted by post-construction airport operations. Stormwater run-off from additional roads, parking lots, and other impervious surface areas will result in an increase in pollutant loading to wetlands and streams unless stormwater treatment facilities are included in the project.

An increase in the amount of impervious surface areas in potential recharge areas such as wetlands limits the groundwater recharge capabilities in the area. The resulting reduced low flows decrease the rearing habitat thereby reducing the carrying capacity of the stream and elevating water temperatures. Higher water temperatures increase the stress levels in

AR 036190

runway embankment, the proposed South Aviation Support Area (SASA), and one possible alignment of the South Access/SR 509 extension.

One commentor indicated that the design of SASA could adversely affect the development of the South Access/509 extension due to increased cost of tunneling. The Port of Seattle is committed to working with regional officials during the design of SASA to ensure that the plans for South Access/SR 509 can be reasonably accommodated. It is likely that resolution of this issue would not result in impacts greater than those shown in the EIS.

Comment R-3-29: Southwest King County Community Group requested clarification of the purpose of the overnight pad and how it would operate.

Response: The 2,500-foot separation between existing Runway 16R/34L and the proposed Runway 16X/34X provides sufficient space for an aircraft parking area. This area would be used to park aircraft overnight at the Airport. Passengers and cargo would be first unloaded at the appropriate facilities, east of the runway system. The aircraft would then taxi to the overnight pad for parking. This pad is not anticipated to be a helipad.

Comment R-3-30: The Airport Communities Coalition, and the Regional Commission on Airport Affairs indicated that the Master Plan Update and Draft EIS did not examine the impacts to Boeing Field and Renton Airport that would occur from an increase in runway crossings at Sea-Tac. The Regional Commission on Airport Affairs asked if SIMMOD can assess these conditions.

Response: One of the benefits of using a computer simulation to assess the impacts of alternative airfield improvements or procedural actions is ability to quantify impacts to the system. The FAA's 1995 Capacity Enhancement Study Update computed the number of runway crossings that would result from the use of the proposed new parallel runway at Sea-Tac. The delay analysis presented in the Draft and Final EIS discusses the impacts to the system from the runway crossings. The Capacity Enhancement Study Update also examined the impacts associated with interaction between Sea-Tac and Boeing Field. Renton was not directly considered because there are no significant airspace interactions with that airport. However, the simulation analysis reflected the air traffic procedures that control traffic at all regional airports, including Renton. The interaction with Boeing Field was reflected in the analysis, as arrivals to Boeing's Runway 13 would require a gap in the arrival stream to the proposed new runway at Sea-Tac.

Comment R-3-31: Southwest King County Community Group stated "The chart shows a great increase in parking spaces, 10,000 or so more spaces for single cars. The health impacts from cars are admitted (SIC - omitted) in this DEIS. With the addition of 10,000 spaces how many more cars will come to Sea-Tac Airport each day? Would you devote more discussion in the EIS about how to discourage car use?" This comment was interpreted to be a suggestion that an additional purpose and need be included to reflect discouraging single-occupancy vehicle use of Sea-Tac.

Response: The use of single-occupancy vehicle usage is an issue that involves more than Sea-Tac Airport, it is one that affects all traffic generators in the Region. The Port of Seattle has undertaken numerous steps to encourage passengers and employees to use transit and high occupancy vehicles. Total airport surface traffic is expected to increase from approximately 87,600 vehicles per average day in 1994, to approximately 161,500 vehicles per average day in year 2020 with or without airport improvements. In developing the three terminal alternatives, emphasis was placed on the use of high occupancy vehicles for access to the Airport to relieve congestion on the terminal surface roads. Such modes could include shuttles and light rail to divert passengers from private autos, taxis and limos. Additional public parking would be developed through a southern expansion of the parking garage and the development of a parking garage on the site of the current Doug Fox parking lot. In addition to the Port's active ride-share and commute programs aimed at reducing employee related vehicular traffic, the

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(viii) Community services, property not used for human habitation (e.g., educational, religious, governmental, cultural and recreational facilities).

(c) Class C EDNA – Lands involving economic activities of such a nature that higher noise levels than experienced in other areas is normally to be anticipated. Persons working in these areas are normally covered by noise control regulations of the department of labor and industries. Uses typical of Class A EDNA are generally not permitted within such areas. Typically, Class C EDNA will be the following types of property:

(i) Storage, warehouse, and distribution facilities.

(ii) Industrial property used for the production and fabrication of durable and nondurable man-made goods

(iii) Agricultural and silvicultural property used for the production of crops, wood products, or livestock.

(d) Where there is neither a zoning ordinance in effect nor an adopted comprehensive plan, the legislative authority of local government may, by ordinance or resolution, designate specifically described EDNAs which conform to the above use criteria and, upon departmental approval, EDNAs so designated shall be as set forth in such local determination.

(e) Where no specific prior designation of EDNAs has been made, the appropriate EDNA for properties involved in any enforcement activity will be determined by the investigating official on the basis of the criteria of (a), (b), and (c) of this subsection.

(2) In areas covered by a local zoning ordinance, the legislative authority of the local government may, by ordinance or resolution designate EDNAs to conform with the zoning ordinance as follows:

(a) Residential zones – Class A EDNA

(b) Commercial zones – Class B EDNA

(c) Industrial zones – Class C EDNA

Upon approval by the department, EDNAs so designated shall be as set forth in such local determination. EDNA designations shall be amended as necessary to conform to zone changes under the zoning ordinance.

(3) In areas not covered by a local zoning ordinance but within the coverage of an adopted comprehensive plan the legislative authority of the local government may, by ordinance or resolution designate EDNAs to conform with the comprehensive plan as follows:

(a) Residential areas – Class A EDNA

(b) Commercial areas – Class B EDNA

(c) Industrial areas – Class C EDNA

Upon approval by the department EDNAs so designated shall be as set forth in such local determination. EDNA designations shall be amended as necessary to conform to changes in the comprehensive plan.

(4) The department recognizes that on certain lands, serenity, tranquillity, or quiet are an essential part of the quality of the environment and serve an important public need. Special designation of such lands with appropriate noise level standards by local government may be adopted subject to approval by the department. The director may make such special designation pursuant to the procedures of the Administrative Procedure Act, chapter 34.04 RCW. [Order 74-32, § 173-60-030, filed 4/22/75, effective 9/1/75.]

WAC 173-60-040 Maximum permissible environmental noise levels. (1) No person shall cause or permit noise to intrude into the property of another person which noise exceeds the maximum permissible noise levels set forth below in this section.

(2)(a) The noise limitations established are as set forth in the following table after any applicable adjustments provided for herein are applied.

EDNA of NOISE SOURCE	EDNA of RECEIVING PROPERTY		
	Class A	Class B	Class C
CLASS A	55 dBA	57 dBA	60 dBA
CLASS B	57	60	65
CLASS C	60	65	70

(b) Between the hours of 10:00 p.m. and 7:00 a.m. the noise limitations of the foregoing table shall be reduced by 10 dBA for receiving property within Class A EDNAs.

(c) At any hour of the day or night the applicable noise limitations in (a) and (b) above may be exceeded for any receiving property by no more than:

(i) 5 dBA for a total of 15 minutes in any one-hour period; or

(ii) 10 dBA for a total of 5 minutes in any one-hour period; or

(iii) 15 dBA for a total of 1.5 minutes in any one-hour period. [Order 74-32, § 173-60-040, filed 4/22/75, effective 9/1/75.]

WAC 173-60-050 Exemptions. (1) The following shall be exempt from the provisions of WAC 173-60-040 between the hours of 7:00 a.m. and 10:00 p.m.:

(a) Sounds originating from residential property relating to temporary projects for the maintenance or repair of homes, grounds and appurtenances.

(b) Sounds created by the discharge of firearms on authorized shooting ranges.

(c) Sounds created by blasting.

(d) Sounds created by aircraft engine testing and maintenance not related to flight operations: *Provided*, That aircraft testing and maintenance shall be conducted at remote sites whenever possible.

(e) Sounds created by the installation or repair of essential utility services.

(2) The following shall be exempt from the provisions of WAC 173-60-040 (2)(b):

(a) Noise from electrical substations and existing stationary equipment used in the conveyance of water, waste water, and natural gas by a utility.

(b) Noise from existing industrial installations which exceed the standards contained in these regulations and which, over the previous three years, have consistently operated in excess of 15 hours per day as a consequence of process necessity and/or demonstrated routine normal operation. Changes in working hours, which would affect

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TABLE 6-3
OPERATING COST SUMMARY
(IN THOUSANDS) [a]

Operating Expenses	1995 Budget	Escalating Assumed	
		1996-2000	2001-2020
Administration	$1,010	0.0%	3.5%
Communications	955	0.0%	3.5%
Marketing	1,922	0.0%	3.5%
Airport Environmental Engineering	60	0.0%	3.5%
Operations	10,265	3.5%	3.5%
Fire	4,968	3.5%	3.5%
Police	8,962	3.5%	3.5%
Planning	1,861	0.0%	3.5%
Property Management	5,457	3.5%	3.5%
Facilities and Maintenance	26,613	3.5%	3.5%
Sub-total O&M Expenses	$62,073	—	—
Allocated Administrative Overhead	12,175	0.0%	0.0%
Aviation Debt Service	39,919	—	—
Pier 69 Allocation	1,012	0.0%	0.0%
Total Aviation Operating Expenses	$115,179	—	—

[a] Source: Berk and Associates.

TABLE 6-4
OPERATING COST DISTRIBUTION BY LINE OF BUSINESS [a]

Line of Business	O&M Cost Centers	Allocations
Airfield	28.2%	30.1%
Terminal	32.8%	30.5%
Concessions	12.8%	11.6%
Ground Access	17.6%	16.7%
Commercial Properties	8.5%	11.1%

[a] Source: Berk and Associates.

of the existing 2-year rate, limiting the developed 10-year flow rate to the existing 10-year rate, and limiting the developed 100-year flow rate to the existing 100-year rate. Stormwater detention volumes would be provided with either underground storage vaults, as shown in **Exhibit IV.10-5**, or with regional storage ponds. Detention requirements of Ecology's *Stormwater Management Manual for the Puget Sound Basin* are more stringent than those of the *King County Surface Water Design Manual*, the latter of which have been adopted by the City of SeaTac. The *King County Surface Water Design Manual* is presently being revised and the revised version is expected to contain design standards that are comparable to or more stringent than Ecology's manual.

- Stormwater quality treatment would be provided with a combination of wet vaults and biofiltration swales.
- Design stormwater facility outlets to reduce channel scouring, sedimentation and erosion, and improve water quality. Where possible, flow dispersion and outlets comparible with the proposed stream mitigation (Appendix P) should be incorporated into engineering designs.
- To mitigate potential reductions in shallow groundwater recharge and incremental reductions in base flows in these creeks, infiltration facilities would be constructed where feasible. One location has been identified as suitable for shallow infiltration facilities an area in the northeast corner of the Airport.[17]
- Existing and proposed new stormwater facilities should be maintained according to procedures specified in the operations manuals of the facilities.
- The potential for using constructed aquifers within the runway fill, as described in **Appendix Q-C**, should be further investigated.
- Tyee pond would be relocated and enlarged as part of the SASA project. The relocated and enlarged pond would be a three-celled system with 40 to 45-acre feet storage capacity located north of the main SASA footprint. The first two cells would be densely vegetated emergent wetland cells for enhanced biofiltration and water quality improvement and the third cell would be off-line, providing detention for large storm events[18].

Various mitigation requirements, as stipulated by federal, state, and applicable local laws, policies, and design standards, would be applicable to construction and operation of the proposed new parallel runway and landside development at the Airport. These requirements would be components of the proposed design and are expected to reduce potential impacts on surface water and groundwater quality. For example, potential temporary increases in suspended solids levels in Miller and Des Moines Creeks or their tributaries from construction activities would be reduced by implementation of an effective erosion and sedimentation control plan, which is required before construction could begin.

Effective erosion and sedimentation control could be achieved by using a system of erosion controls (e.g., mulching, silt fencing, sediment basins, and check dams) that are properly applied, installed, and maintained. In a study of construction sites in King County between January 1988 and April 1989, the most common reasons for ineffective erosion control plans included failure to install Best Management Practice (BMP) erosion controls, improper installation of erosion controls, and failure to maintain erosion controls.[19] The Port of Seattle may need to include specific provisions in its agreements with contractors to ensure that erosion control measures are properly installed and maintained during construction activities (e.g., performance bonds).

Use of BMPs at construction sites, such as spill containment areas, phasing of construction activities (to minimize the amount of disturbed and exposed areas), and conducting activities during the dry season (April through September), also should prevent or reduce potential impacts on surface water and groundwater quality. According to the NPDES permit (Permit No. WA-002465-1) issued by the Washington State Department of Ecology, the Port of Seattle is

[17] Draft Technical Memorandum dated June 28, 1995 from Dan Cambell, Hong West & Associates, Inc. to Jim Peterson and John Genkshow, HDR Engineering, Inc.

[18] *South Aviation Support Area Final Environmental Impact Statement*, Port of Seattle, 1994.

[19] *Erosion and Sediment Control: An Evaluation of Implementation of Best Management Practices on Construction Sites in King County, Washington January 1988-April 1989*. Prepared by C. Tiffany, G. Minton, and R. Friedman-Thomas for the King County Conservation District, Renton, WA. King County, 1990.

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from adjacent property lines; and cut slopes at 2:1 (horizontal:vertical). Other assumptions specific to individual borrow source areas are discussed below.

The following borrow estimates are based on in-place soil volumes on the borrow sites. Volumes of the in-place material may either increase or decrease after excavation, placement, and compaction. The amount of fluff (increase) or compression (decrease) varies with the soil material type and the degree of compaction after placement. Fluff and compaction factors are expected to range from +12% to -9%, respectively, for material obtained from the on-site borrow source areas.[22]

- *Area 1.* About 2.3 million cubic yards of material could be obtained using a uniform 15-foot cut and no material is removed from the DMCTC site. Deeper cuts of up to 45 feet on portions would result in the removal of up to 4.0 million cubic yards of material. Excavation of the low-lying area at the north end of the site was not included in the estimates because of the likely occurrence of shallow groundwater. The current plans for this site call for the removal of up to 500,000 cubic yards.
- *Areas 2.* About 330,000 cubic yards fill material could be obtained using a uniform 15-foot cut. Deeper cuts appear feasible and could provide up to 650,000 cubic yards of fill material.
- *Area 3.* Excavation depths of 0 to 30 feet at the south end of Area 3, and 0 to 55 feet at the north end could produce up to 2.9 million cubic yards of material.
- *Area 4.* About 300,000 cubic yards fill material could be obtained using a uniform 15-foot cut. Deeper cuts up to 30 feet may be feasible west of the proposed SR509 right-of-way, which could result in the removal of up to 2.2 million cubic yards of material. Both estimates assume no material would be excavated within the SR509 corridor.
- *Area 5.* About 1.1 million cubic yards of fill material could be obtained using a uniform 15-foot cut. Up to 1.75 million cubic yards of material may be excavated using a maximum cut of 35 feet in places. Petroleum hydrocarbon-contaminated fill that occurs on the site is included in these estimates.
- *Area 8.* About 20.7 acres of wetland occur on the site. Additionally, the site is located near the Lake Reba detention facility. To avoid impacts on wetlands and the lake, no material will be excavated from Area 8.

3. Hazard Areas

Under Alternative 2, excavation and construction would occur in areas that have been identified as seismic hazards by the City of SeaTac (Exhibit IV.19-2).[23] Soils in seismic hazard areas are prone to liquefaction during an earthquake, which could result in vertical displacement of embankments and pavement. Two of these areas are located on the SASA. Geotechnical analysis of soils in these areas indicates that these soils would not liquefy during a seismic event and these areas, therefore, do not pose a seismic hazard.[24] Two seismic hazard areas occur on the site of the proposed new parallel runway. Geotechnical investigations indicate these seismic hazards are loose, saturated sediment, about 5 to 20 feet deep, that likely would liquefy during a seismic event. During runway construction, the sediment would be removed and replaced with compacted fill. Seismic hazard areas also occur on Borrow Source Areas 1, 5, and 8. Excavated cut slopes in these

[22] *Draft Borrow Source Area Study*, AGI, April, 1995.

[23] *Environmentally Sensitive Areas Map Folio*, City of SeaTac, 1991.

[24] *South Aviation Support Area Final EIS*, Port of Seattle, 1994.

AR 036195

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An Employee-Owned Company

Minnie O. Brasher
846 So. 136th
Burien, WA 98168

June 22, 1994

Dear Ms. Brasher:

In response to your question regarding the Flight Plan Working Paper Number 11 document, I have reviewed my copy which was "presented" October 23, 1991 and "adopted" November 26, 1991. I have been unable to find any other versions of this report.

On page 4 of this document the statement is made that the dependent runway option will require 110 acres of land acquisition and will include 230 homes. I could find no reference to wetlands in this Working Paper. The estimate of land and homes appears to actually have been taken from an earlier report prepared by TAMs. In checking this report, I find the consultant made a very generalized assumption regarding land acquisition. The work that we have recently completed as a part of the Master Plan Update is based on a greater level of analysis. I suspect this is the main reason for the differences.

Further research revealed the impact on wetlands estimated in the Flight Plan analysis was discussed in the Draft Programmatic EIS, dated June 1992. On page 3-35 the statement is made the "The existing Sea-Tac airport with a new dependent runway would not affect any wetlands." Airport impacts at Paine Field would affect approximately 13 acres of shrub/emergent and 22 acres of emergent/open water wetland, for a total of 35 acres of wetland. The Olympia/Black Lake site could potentially affect 36 acres of wetland.

I hope this helps to answer your questions. Please don't hesitate to let me know if I can be of further help.

Very truly yours,

Ronald E. Ahlfeldt
Senior Vice President

MC2 Miller Creak Management Coalition.

April 3, 1998

Mr. Clark E. Dodge
Chair: Miller Creek Management Coalition
225 SW 171st Street
Normandy Park, WA. 98166

Army Corp of Engineers

Re: Corps of Engineer Hearing on Part 404 Permit for POS

1 The Port of Seattle's expansion plans for Sea-Tac Airport seem to be lacking in addressing areas of impact on local communities. The Port's environment plan has very serious damaging propositions that do not seem to fit into what they claim they are doing to minimize the negative effects on our streams and aquifer recharge.

2 The U.S. Army Corps of Engineers is a federal agency charged with oversight of wetland's permits. You are therefore responsible for seeing that such permits comply with the Clean Water Act and other federal and state regulations. Being a federal agency you are less subject to the local political controversy surrounding the runway issue. You are receiving hundreds of written comments opposing the Port's proposal to destroy many acres of wetlands in the Miller creek basin and turn thousands of feet of Miller Creek into a drainage ditch to accommodate a 3rd Sea-Tac runway. The Cities of Burien. Seatac, Normandy Park, along with other groups, such as, the Normandy Park Cove Board, Trout Unlimited. Southwest Suburban Sewer District and local citizen have worked for years to re-establish fish runs in the stream and to restore the creak. Please do not grant this permit and allow destruction of the headwaters of this stream and the related negative effects. Some of which we do not even know yet, and that is the scary part.

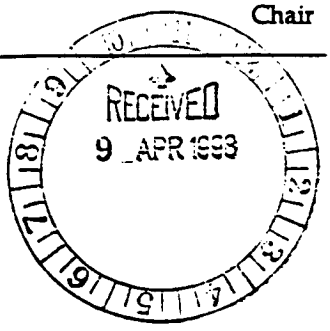
Regards

Clark E. Dodge
Chair: Mc2

City of Burien
City of Tukwila
City of Des Moines
City of Federal Way
City of Normandy Park
Highline School District

AIRPORT COMMUNITIES COALITION

John L. Rankin
Chair



April 6, 1998

Mr. Jonathan Freedman, Project Manager
Regulatory Branch
United States Army Corps of Engineers
Seattle District
P.O. Box 3755
Seattle, Washington 98124-2255

Re: Public Notice 96-4-02325, Port of Seattle, December 19, 1997

Dear Mr. Freedman:

The cities of Normandy Park, Des Moines, Burien, Tukwila and Federal Way, respectfully request that we be included in all future meetings between the Corps of Engineers and the Port of Seattle ("Port") regarding the Port's section 404 application for a permit to fill approximately 12 acres of wetlands in the Des Moines Creek and Miller Creek Watersheds.

We are aware that at least one meeting has been held at which the Port, U.S. EPA Region 10, the U.S. Fish and Wildlife Service, King County and other agencies were represented. As you should be aware, the affected Des Moines and Miller Creek watersheds are largely located within our cities, and are subject to our local regulation under state law; we therefore have the greatest stake in the outcome of the Corps of Engineers permitting process. Perhaps more than any other community, our communities would be directly affected by the proposed permit which would result in the irreparable loss of these wetlands in the Des Moines Creek and Miller Creek Watersheds. We, therefore, request timely notification of all future meetings, so that a representative of the Airport Communities Coalition or its constituent cities may attend and provide our technical input to the process.

I look forward to hearing from you at your earliest convenience.

Sincerely,

John Rankin, Chairman
Airport Communities Coalition

cc: Fred Weinmann, EPA Region 10
Nancy Gloman, Fish and Wildlife Service

21630 11th Avenue S. Des Moines, WA 98198-6398 (206) 870-6526 Fax: (206) 870-6540

WAMA
WASHINGTON AIRPORT MANAGEMENT ASSOCIATION

2G-4

April 7, 1998

Mr. Jonathan Freedman
U.S. Army Corps of Engineers
Seattle District
Seattle Federal Office Building Suite 200
909 First Avenue
Seattle, Washington 98104-1000

Dear Mr. Freedman:

The Washington Airport Management Association (WAMA) is a non-profit organization established to promote the public's understanding of the value of aviation and an airport to the community, and to promote the highest standards possible in all technical operations necessary for public safety and efficient airport control. Our membership is rather diverse and includes representatives of 40 airports in the state of Washington, including large commercial airports, as well as small general aviation airports.

On behalf the WAMA membership, I wish to recognize and support the wetland mitigation project that the Port of Seattle has developed for the wetland fill requirements of its long-range Master Plan improvements. We understand that the Port's Master Plan requires the filling of approximately 11 acres of wetlands in order to develop a new parallel runway and expanded terminal and landside facilities. While wetlands provide valuable ecological benefits to an immediate area and region, these resources also represent wildlife attractants that can affect aviation safety. The Washington Airport Management Association commends the Port of Seattle for developing a mitigation approach that removes unsafe wildlife attractants from the airport environs and provides new and enhanced habitat at a location away from the airport. We also commend the Port for using an approach that maximizes in-basin mitigation for the select functions that will not have an adverse impact on the safety of the airport.

Sincerely,

Colin A. Clarke

Colin A. Clarke
President
Washington Airport Management Association

Colin Clarke, President	Pangborn Memorial Airport	509-664-2494	One Pangborn Drive	East Wenatchee, WA 98802
Larry Adams, Vice President	Walla Walla Regional Airport	509-529-0843	Rt. 4, Box 173	Walla Walla, WA 99362
Lynne Jacobsen, Secretary	Sea-Tac Int'l Airport	206-248-6881	P.O. Box 68727	Seattle, WA 98168-0727
Jeff Robb, Treasurer	Port of Port Angeles	360-457-1138	P.O. Box 1350	Port Angeles, WA 98362

League of Women Voters of King County South • PO Box 66037, Seattle, WA 98166 • (206) 243-7161

2G-5

Serving the cities of Algona, Auburn, Black Diamond, Burien, Covington, Des Moines, Enumclaw, Federal Way, Kent, Maple Valley Milton, Normandy Park, Pacific, Renton, SeaTac and Tukwila; and the unincorporated areas of South King County.

April 8, 1998

To: **Army Corps of Engineers**

Regarding: **Permit #96-4-02325**

I am Becky Cox, representing the League of Women Voters of King County, which is comprised of the League of Women Voters of King County South, the League of Women Voters of Seattle and the League of Women Voters of Lake Washington East.

The League of Women Voters has long standing environmental positions at local, state and national levels supporting the protection of watersheds, maintenance of stream flows, protection of aquifers as well as support for protection of endangered species.

We believe the Port of Seattle has a unique opportunity to demonstrate how protection of watersheds, stream flows, aquifers and endangered species can be successfully integrated into a master plan for Sea-Tac Airport. With the announcement that the Chinook Salmon could be listed as an endangered species in as few as twelve months, it is even more critical for the Port to take the initiative in this arena.

The three Leagues are requesting that revisions be made to the Port of Seattle's application for State Water Qualification Certification.

We are specifically requesting that wetlands numbered 1-15 and 34 not be part of the mitigation process of the permit and the Port of Seattle should be required to keep these wetlands in their natural state. The wetlands are at the edge of the Port of Seattle's proposed airport "footprint" and represent 29.28 acres or 20% of the wetland acreage identified in the permit. The League can see no danger to anyone or anything if the wetlands are retained in the areas specified. We can see immense benefit to the area both now and in the future.

The permit as presented to the Army Corps of Engineers shows the upper portion of Miller Creek with a straightened flume type channel. Without the wetlands and with a straightened channel, the water will run faster and cause downstream flooding. The plan in the permit also shows storm water from a proposed service road being sent directly into Miller Creek. Science tells us that the most minute quantity of the wrong chemical can mean the end of a

LWV is a nonpartisan organization that encourages active participation by citizens in their government. LWV supports action and legislation on public policy issues reflecting League's positions based on consensus reached through study and discussion.

stream. Experience tells us that it happens. A small amount of chlorine was inadvertently put in a storm drain recently and everything was killed in a Highline area stream.

2 The League requests that Miller Creek should not be moved nor should it be the recipient of any untreated waste water or storm water which might contain contaminants. The Port of Seattle is an up-stream user and is responsible for the quantity and quality of the water for the down-stream users. The same is true for Des Moines Creek.

3 The permit touched very lightly on the salmonid population of both Miller Creek and Des Moines Creek. We consider the salmon runs in both creeks of significance and the Port of Seattle should be among the first in King County to put a plan for species preservation in place without a mandate from the federal government.

4 The wetlands are closely linked to the Highline Aquifer. The areas we designated are part of the recharge area for the aquifer. The State Water Use Assessment Program addresses concern about aquifers and their ability to be recharged. The Port of Seattle, the Army Corps of Engineers and the State Department of Ecology should also be concerned about the Highline Aquifer. It was noted in the ground water plan put forth by the Port that jet fuel has been found in the southern wells of the Aquifer. There is no good scientific information to prove that this fuel will never migrate to the aquifer. A good example of how little is known about underground migration is the migration of atomic waste from Hanford toward the Columbia River. As more of the area above the Highline Aquifer is covered with impervious surfaces, less water is available to recharge the aquifer.

In summary, the Leagues of Women Voters of King County are asking that the Army Corps of Engineers not issue the permit as it is currently presented. The permit should be revised to:

- Maintain wetlands 1-15 and 34 in their natural state.
- Retain the natural bed of Miller Creek and keep it from being a repository for service road run-off.
- Provide for the protection of the Chinook Salmon.
- Address the availability and protection of water for the recharging of the Highline Aquifer.

Submitted by: Becky T. Cox
League of Women Voters of King County

C.A.S.E.
Citizens Against Seatac Expansion

April 9, 1998

U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

Attention: Jonathan Freedman, Project Manager

Reference: 96-4-02325
Port of Seattle

Dear Mr. Freedman:

The intent of this letter is to formally request that the Army Corps of Engineers reject the Section 404(b)(1) permit submitted by the Port of Seattle, the aforementioned reference.

Enclosed with this request is a document containing the comments prepared by Citizens Against Sea-Tac Expansion (CASE). These comments are intended to provide "new" information to the Corps which will add information heretofore immediately and easily unavailable.

CASE would like to remind the Corps that:

1 • The proposed permit fails to define the scope of the proposed actions, including the size of the affected wetlands, and mitigation measures required.

2 • The proposed permit is missing information and appears to contain misleading and erroneous information.

3 • There are many issues concerning the proposed Section 404 permit which are currently in litigation. Additionally, elements in dispute concerning the proposed NPDES permit affect provisions in the proposed Section 404 permit. Until these issues are resolved a Section 404 permit should not be issued.

4 • The proposed permit fails to consider the replacement of wetlands in the same basin system. In addition, the permit proposes that the Corps reverse its previous policy requiring replacement of wetlands in the same basin system for proposed facilities in the South Aviation Support Area (SASA).

5 • The proposed permit fails to consider available options which will eliminate the need for the proposed actions.

CASE wishes to thank the Corps for conducting the public hearing and for its unbiased approach to this immensely important consideration. CASE welcomes the opportunity to work with the Army Corps of Engineers.

Sincerely,

Candice L. Corvari
Co-President
CASE
19900 Fourth Avenue SW
Normandy Park, Washington 98166

Lawrence J. Corvari
Co-President

cc: Governor Gary Locke
Lt. Governor Brad Owen
State Senator Julia Patterson
State Representative Karen Keiser
State Representative Jim McCune
King County Executive Ron Sims
King County Council Member Peter von Reichbauer
King County Council Member Greg Nickels
King County Council Member Kent Pullen
King County Council Member Chris Vance
King County Council Member Brian Derdowski
King County Council Member Rob McKenna
King County Council Member Larry Phillips
City of Normandy Park
City of Burien
City of Des Moines
City of Seatac
City of Tukwila
City of Federal Way
Port of Seattle
U.S. Senator Patty Murray
U.S. Senator Slade Gordon
U.S. Representative Adam Smith
Frank D. Ellis, Engineering Inspector General
Colonel James M. Rigsby, District Engineer, Corps of Engineers, Seattle District
Environmental Protection Agency
State Department of Ecology
Airport Cities Coalition
Regional Commission on Airport Affairs
Miller Creek Coalition
Puget Sound Water Coalition
Trouts Unlimited
Sierra Club

CASE
Citizens Against SeaTac Expansion
19900 Fourth Avenue SW
Normandy Park, WA 98166

Comments Regarding the Army Corps of Engineers Section 404 Permit Prepared by CASE

Reference: 96-4-02325

Name: Port of Seattle

Date: April 9, 1998

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Copies of this document may be obtained:

CASE
Document Number: COE/404/96-4-02325
19900 Fourth Avenue SW
Normandy Park, Washington 98166
E-Mail: corvari@ricochet.net

AR 036205

Background

CASE is a grass-roots organization whose membership includes:

- concerned citizens fighting the battle for over 20 years.
- Current and retired Water Commissioners concerned with drinking water impacts,
- Current and retired Sewer Commissioners concerned with sewer impacts,
- environmentalists concerned with Puget Sound phytoplankton and the impact on the world's food chain,
- aerospace managers, engineers, and physicists convinced this will be so expensive it will hurt the aerospace industry,
- State of Washington Senators and Representatives as well as locally elected officials,
- consultants who verify members' concerns

Our membership provides expertise and analysis by:

- purchasing computer models used in POS and government analyses and run our own analysis to identify MAJOR errors
- participating in international data exchanges via conference calls and the internet
- provide expert data into government agencies and concerned organizations

The Port of Seattle's (POS) Section 404 permit application proposes to fill wetlands as part of the construction of a third runway at the POS's Seattle-Tacoma International Airport. Citizens Against SeaTac Expansion (CASE) objects to the proposed permit for the following reasons:

- The POS has failed to give adequate considerations to alternative approaches and designs which would obviate the need to destroy the wetlands and damage the streams,
- The POS has not proposed an appropriate plan to replace the wetlands it proposes to destroy,
- Destruction of the wetlands will cause or contribute to significant degradation of water quality and aquatic resources in the area including streams and aquifers,
- Destruction of these wetlands is contrary to local regulations and the interests of the surrounding communities, the Clean Water Act, and the current Administration's Clean Water Initiative,
- The destruction of these wetlands and construction of a third runway may make it impossible to implement the AKART plan to be developed under a new NPDES permit by eliminating land and using resources that otherwise could be used to control pollution such as de-icing pads, and

- The permit consideration should be delayed until resolution of significant technical and cost issues that could eliminate the possibility of a third runway, including the following:

12 - Determine the impacts of the proposed Endangered Species designation for salmon;

13 - Complete the 1997 Groundwater Study required by the Department of Ecology (DOE) Agreed Order 97TC-N122;

14 - Reconcile the discrepancies between EIS landslide hazards and King County maps including Miller Creek landslide scars;

15 - Conduct soil and erosion studies based on the fact that the EIS states the 1952 data is believed to be invalid for the area nort of South 192nd Street (IV, Section 19);

16 - Determine barging and conveyer belt impacts on wetlands both at the project site as well as the proposed borrow sites;

17 - Determine wetland impacts for strip mining permits;

18 - Complete the University of Washington earthquake fault study and resolution of current proposal to increase the Uniform Building Code for Puget Sound Seismic rating from 3 to 4;

19 - Determine North Parking ~~Lot construction violations related to the~~ Miller Creek mud slides, sinking of First Avenue South, and unusual water level fluctuations occurring in Angle Lake.

20 - Resolve data discrepancies in the EIS and 1998 NPDES. DOE, according to NPDES ~~response to comments, is not apprised of the~~ change of SDN 002 (outfall 007) to SDN 002 (outfall 11) but does report the renumbering of outfall 010;

- Reassess feasibility of a third runway in light of the fill transportation, cost, and availability problems that have worsened since the SEIS was written.

21 - 1. ~~The Department of Natural~~ Resources, ~~in a letter dated 18~~ June 1997, retracted their SEIS position, and now requires a Surface Mine Reclamation Permit in accordance with RCW 78.~~44~~ to strip mine Port Borrow sites 1, 2 and 3.

22 - 2. The issuing of a new Maury Island permit is now complicated by high arsenic levels.

23 - 3. The Port of Seattle has had to re-bid Phase 1 ~~because cost~~ estimates for 1 million cubic yards of fill and a retaining wall exceeded their budget by 23 to ~~48~~ %.

24 - 4. Water related construction problems have significantly increased the costs of the new North Employees parking lot construction project.

25 - 5. Upholding of the Des Moines Growth Management Act

26 - Conduct a Supplementary EIS with a much larger study area and using the revised elevation for ~~a third runway~~. ~~This~~ SEIS ~~should~~ determine if State Highway 509 must be moved to avoid the high landslide risks if the currently planned retaining wall is built.

Same Standard for All

27

The Corps of Engineers (COE) must hold the POS to the same standards for a Section 404 permit that it has held other *private* applicants:

- Application by the Emerald Downs race track who was seeking to fill 17 acres of wetlands. When the race track sought the permit, they were required to comply with Section 404(b)(1) of the Federal Water Pollution Control Act. This required an alternative analysis that showed the proposed site was the only site that satisfied the practicable alternatives analysis and was the least environmentally harmful alternative. Within this analysis, every potential site in Western Washington was considered.
- Application for a landfill to be located in Pierce County was recently denied due to unacceptable wetlands impacts and the availability of other solid waste disposal alternatives. This despite the applicant's denial of the suitability of other solid waste disposal alternatives.

28

POS states in its application that it "is possible that some additional wetland areas and acreage could be identified when access is available to all wetlands in the project area." This alone makes the application unacceptable. Throughout the documentation supplied by the POS, the amount of wetlands varies significantly. Heretofore, no applicant has been given a Section 404 permit with the caveat that they may discover and fill an unquantifiable amount of wetland acreage if they suddenly discover "more" wetlands in the project area. The presence of the aquifer significantly increases the probability that additional wetlands will be identified

29

The Department of Interior states, "The public notice and mitigation plan are inconsistent regarding the acreage and number of wetland impacts from the proposed project."[1]

General Comments

30

- The POS has a dismal environmental and mitigation compliance record.

31

- The EIS is being challenged in court. The number of operations, costs, and impact on the environment, including the endangered/threatened species and the aquifer, were grossly underestimated.

32

- The NPDES permit is being challenged and consequently the Section 404 permit cannot be issued until the NPDES permit is renewed.

33

- The "insignificant" construction to-date appears to have already adversely affected water levels and flooding patterns making prior hydrological analysis obsolete.

34

- The permit application contains no provisions for special monitoring of the project to ensure compliance with regulations and "best practices" are maintained. Hauling, to date, has not complied with the *recommended* EIS mitigation to restrict hauling to dry weather and use covered haul trucks.

[1] Letter from the United States Department of the Interior, Fish and Wildlife Service, North Pacific Cost Ecoregion, Western Washington Office to Colonel James M. Rigsby, District Engineer, Corps of Engineers, Seattle District, dated January 22, 1998.

AR 036208

Fill materials literally poured off the trucks on South 188th Street as the trucks approached the airport construction entrance.

35 • References within the EIS are obsolete: release of untreated de-icing agents already occurs; data on the hazards of de-icing agents is available (Canadian Study); and tests indicate high, unsafe fecal coliform found in the creeks surrounding the area are human in origin.

36 • The ramifications of the Kludt/Miller Creek settlement agreement are not addressed.

37 • The permit application erroneously states that the wetlands have a "low functional value" (Page 5).

38 • The "100 year flood" plain has been altered by construction near and at the airport demanding that a new study is needed before a Section 404 permit can be granted.

39 • Several of the proposed borrow sites are in the immediate vicinity of wetlands.

Specific Deficiency Categories

The following sections discuss, in some detail, why the permit fails to meet basic requirements. In addition, and for these reasons, the EPA stated, "Based upon our concerns and comments...we can not conclude that this project complies with the Clean Water Act Section 404(b)(1). Accordingly, the EPA recommends the permit be denied as proposed."[2]

Alternative Designs

40 According to the Clean Water Act, the COE may not issue the Section 404 permit if there are design options that would cause less damage to wetlands and streams. In reviewing the POS's application, POS has <u>not</u> examined or presented design options which could save the wetlands.

The POS could obviate the need to destroy the wetlands by:

41 • Making use of alternative airports already designated as reliever by the FAA. i.e. Paine Field located in Snohomish County, Renton Municipal Airport, Auburn Municipal Airport

42 • Making use of alternative airports, i.e. Bremerton Airport located in Kitsap County, McCord Airforce Base located in Pierce County, Moses Lake Airport located in Grant County.

[2] Letter from the United States Environmental Protection Agency, Region 10 to Colonel James Rigsby, District Engineer, Corps of Engineers, Seattle District, dated February 3, 1998.

43 | • Constructing an entirely new airport. i.e. Centralia-Chehalis area with easy access to Interstate 5, rail road lines. and the state capital located in Olympia.

44 | The EIS ignores cost -effective and environmentally preferred alternatives:

- Technology used by other airports to avoid expanding into heavily populated areas. nor

45 | • Another Sea-Tac runway on existing property with updated technology which would meet its stated objectives and destroy little or no wetlands.

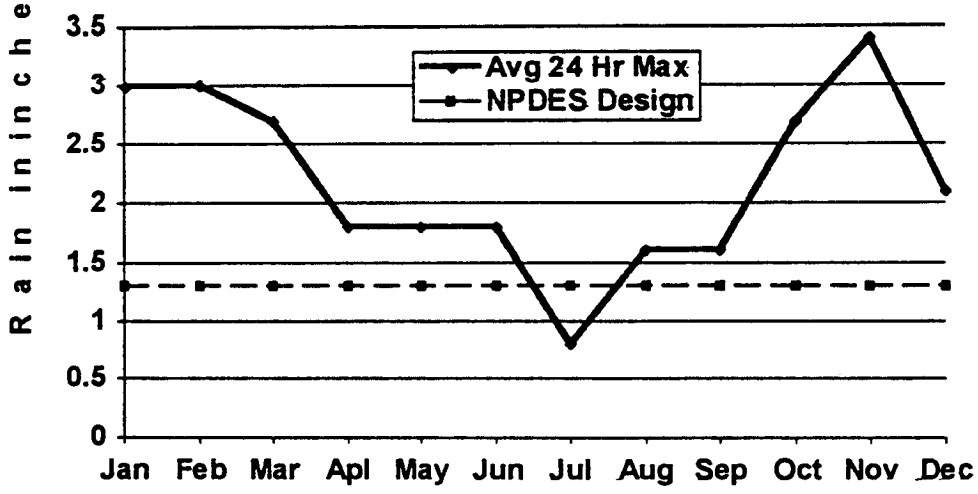
46 | The SEIS states Sea-Tac Airport is surface transportation limited and furthermore, recommends the development of another EIS in 2000 - before a third runway is completed.

Replacement Plan

47 | There are a number of wetlands within the Des Moines Creek and Miller Creek watersheds that could benefit from not only enhancement but also restoration. The POS has not provided an adequate explanation as to why these locations are not satisfactory for replacement of destroyed wetlands.

The existing wetlands mitigate the effects of significant rainfall as it slows the amount of water flow into the existing creeks, refer to Figure 1.

Figure 1 - NPDES Design information



The information required to produce Figure 1 was obtained from the Response summary (Page 107) comparing maximum 24 hour rainfall averaged for the period 1948 through 1990 (Federal Climate Complex Asheville).

The POS cites the FAA advisory regarding location of airports near (within 10,000 feet) aviary attractants. Existing wetlands are clearly within the area the POS claims is too close to runways.

48 • Where are the facts that substantiate bird hazards to aircraft due to existing wetlands?

49 • The FAA advisory (AC No. 150/5200-33) states the siting criteria are recommendations and guidance, and that new airport projects should not be built near these hazards.

50 • The FAA advisory is exactly as its name indicates, it is an **ADVISORY** it is not mandatory regulation!

51 • If the POS's logic is followed, then all attractants within 10,000 feet should be filled in/eliminated including Angle Lake, Lake Burien, Arrow Lake, Bow Lake, Lora Lake, Tub Lake, and Puget Sound.

52 • If the FAA advisory is followed, it would imply that increased airport traffic should not be encouraged within 10,000 feet of the existing Miller Creek and Des Moines Creek wetlands.

53 Replacing wetlands within the affected watershed is critical due to the damage which already has occurred over the past fifty years. These wetlands are Natures way of filtering and cleaning the water, like kidneys, that not only flows into the surrounding creeks but also into the aquifers from which we draw our drinking water supplies.

54 The POS suggestion that the wetlands be mitigated some twenty (20) miles from the destroyed area and watershed is unacceptable. The construction of new wetlands is fraught with failures and low success rates. The Department of the Interior states, "...the creation of wetlands at the proposed mitigation site would require experimental construction methods."[3]

55 The POS intends to give land neighboring the proposed mitigation site to the City of Auburn without limitations to control the use of land or maintain adequate water supply to the wetlands once they are built. In addition, the proposed wetlands site is

56 within the Green River watershed which contains the chinook salmon proposed for listing under the Endangered Species Act.

57 The Department of Interior states, "The Service has previously raised concerns regarding the location and inadequacy of the proposed mitigation. ... The proposed mitigation does not adequately compensate for the direct and indirect impacts of the proposed project."[4]

Water Quality

With regard to the POS's Environmental Impact Statement (EIS), the POS documents the following:

- there will be events that cause more sediment to reach the affected streams,

[3] Letter from the United States Department of the Interior, Office of the Secretary to Federal Aviation Division, Northwest Mountain Region, dated April 8, 1997.

[4] Letter from the United States Department of the Interior, Fish and Wildlife Service, North Pacific Cost Ecoregion, Western Washington Office to Colonel James M. Rigsby, District Engineer, Corps of Engineers, Seattle District, dated January 22, 1998.

- more de-icing agents will reach the affected streams, and
- more heavy metals will reach the affected streams.

58 It is already well known that these contaminants harm aquatic life thereby disrupting the food chain causing further destruction to habitat that is already greatly stressed. These actions will violate the State of Washington's water quality standards and consequently the COE and Washington State Department of Ecology may not certify this project under these circumstances.

59 The POS also desires to relocate complete portions of Miller Creek. Much like the construction of wetlands issue, the construction of stream beds is an inexact art (not science). During the relocation effort, habitat and water quality will suffer further. The length and affect of these impacts are non-quantifiable.

60 The Washington State Department of Fisheries indicates, "there is a serious risk to water quality impacts to Des Moines Creek and Miller Creek especially erosion and sedimentation during construction."[5]

61 Construction delay impacts resulting in ALL traffic traveling at speeds of between zero (0) to twenty (20) miles per hour instead of current speeds, have not been considered in the water pollution calculations.

Local Regulations

62 According to COE regulations, a permit may not be issued without state, as well as, local authorizations. The affected airport communities (Cities of Burien, Des Moines, and Normandy Park) have ordinances which indicate that wetland mitigation must occur within the affected watershed. The obvious disregard for these regulations alone, is grounds for denial of the applicant's permit.

63 Vice President Gore announced the Administration's Clean Water Initiative in October 1997. This Initiative revises the former policy of no net-loss of wetlands. The goal of the initiative, is to provide a net increase of 100,000 acres of wetlands by 2005.

64 This permit application is completely contrary to:

- the Administration's Clean Water Initiative
- the Army Corps of Engineers' regulations
- the Environmental Protection Agency's guidelines
- the environmental health of the area
- the affected communities regulations
- the sentiment of the citizens

[5] Letter from the Washington Department of Fisheries to Permit Coordination Unit, Department of Ecology dated January 16, 1998.

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Endangered Species Act

65

In July 1997, the National Marine Fisheries Service announced that numerous salmon runs in the Pacific Northwest, including Puget Sound chinook, Puget Sound chum, and sea-run cutthroat, were candidates for listing under the federal Endangered Species Act. The Water and Land Resources Division of the King County Department of Natural Resources has identified Puget Sound chinook, Puget Sound chum, and sea-run cutthrouat as present in Miller Creek. The potential listing had not been announced at the time of the POS EIS was completed and, consequently, the EIS completely fails to consider the impact on these potential endangered species.

It is apparent, that the National Marine Fisheries Service recognizes the importance of healthy salmon runs. It is unacceptable to consider destroying the wetlands and adversely impacting the headwaters of the creeks bearing potentially endangered salmon.

The Nation Marine Fisheries Services state, that "While there are currently no anadromous fish species listed pursuant to the Endangered Species Act (ESA) present in the project area, there could be in the near future or prior to completion of this project."[6]

[6] Letter from The United States Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Habitat Program/Olympia Field Office to Colonel James M. Rigsby, District Engineer, Corps of Engineers, Seattle District dated January 16, 1998.

Table 1- Species of Concern Listed as Potentially Occurring[7]

Common Name	Status*
Bald eagle	ST, FT
Peregrine falcon	SE, FE
Great blue heron	SM
Pileated woodpecker	SC
Marbled murrelet	SC, FC
Black tern	FC
Bull trout	FC
Mountain quail	FC
Northern red-legged frog	FC
Northwestern pond turtle	FC
Spotted frog	FC
Coho salmon	FC
Steelhead	FC
Chum Salmon	FC

- Status: SC = State candidate for endangered, threatened or sensitive; SE = State endangered; SM = State monitor; ST = State threatened; FC = Federal Candidate for endangered, threatened, or sensitive; FE = Federal endangered; FT = Federal threatened

Trouts Unlimited, a local habitat enhancement group, has also reported coho salmon residing in both Miller and Walker Creeks.[8]

[7] Management Recommendations for Priority Species, Washington State Department of Wildlife 1991.

[8] Normandy Park Community Newsletter, "Miller and Walker Creeks Salmon Report" by Andy Batcho, November 1997.

Conclusion

CASE believes that we have made a compelling argument against granting of the Section 404(b)(1) permit. Our position is that there is already sufficient data available to warrant denying the permit. However, if it is the intent of the COE to grant the permit or delay its issuance, we respectfully request a special technical forum be held so that our technical experts can discuss the issues with COE experts. CASE has spent thousands of hours reviewing regulations, reports, and environmental impact statements related to the Sea-Tac expansion issue. These comments address only a portion of our concerns.

References

1. Letter from the United States Department of the Interior, Fish and Wildlife Service, North Pacific Cost Ecoregion, Western Washington Office to Colonel James M. Rigsby, District Engineer, Corps of Engineers, Seattle District, dated January 22, 1998.
2. Letter from the United States Environmental Protection Agency, Region 10 to Colonel James Rigsby, District Engineer, Corps of Engineers, Seattle District, dated February 3, 1998.
3. Letter from the United States Department of the Interior, Office of the Secretary to Federal Aviation Division, Northwest Mountain Region, dated April 8, 1997
4. Letter from the Washington Department of Fisheries to Permit Coordination Unit, Department of Ecology dated January 16, 1998
5. Letter from The United States Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Habitat Program/Olympia Field Office to Colonel James M. Rigsby, District Engineer, Corps of Engineers, Seattle District dated January 16, 1998.
6. Normandy Park Community Newsletter, "Miller and Walker Creeks Salmon Report" by Andy Batcho, November 1997.

AR 036216

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

Reply to
ATTN of: ECO-083

FEB - 3 1998

OPTIONAL FORM 99 (7-90)
FAX TRANSMITTAL # of pages ▶ 3
To Debbie Miller From Steve Roy
Dept./Agency Phone #
Fax # Fax #
NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

Colonel James M. Rigsby
District Engineer
Seattle District, Corps of Engineers
P.O. Box C-3755
Seattle, Washington 98124-2255

ATTN: Jonathan Freedman, Project Manager

RE: Public Notice 96-4-02325, Port of Seattle, December 19, 1997

Dear Colonel Rigsby:

We have completed our review of the above referenced public notice which proposes to fill 7.38 acres of wetlands for the construction of a third parallel runway at Seattle-Tacoma International Airport, including filling 5.46 aces of wetlands for the proposed third runway and 1.92 acres of wetlands fill at on-site borrow sites. Also proposed is filling 2.34 acre of wetlands to construct two new Runway Safety Areas. An additional proposed fill of 1.70 acres of wetlands to construct the South Aviation Support Area (SASA) facilities for airport support and maintenance facilities. Total wetland fill per the public notice is 11.42 acres as described in the table on sheet 6 of 29. Also on sheet 6 of 29 the foot note describes a total of approximately 12.23 acres of wetlands would be filled as a result of this project. Clarification is needed to account for the direct wetland impacts associated with this project.

The proposed work would also require filling and rechanneling approximately 980 feet of Miller Creek (0.25 of an acre), about 2.280 feet (0.15 of an acre) of drainage channels in the Miller Creek basin, and about 2,200 feet (0.5 of an acre) of Des Moines Creek.

As part of EPA's review, we read the proposed "mitigation plan" provided by the applicant and dated December 18, 1996. The direct acreage impacts to waters of the U.S. is different in this document than that included in the Public Notice.

After reviewing the above referenced public notice, the Environmental Protection Agency (EPA) has the following concerns and comments:

- The public notice and "mitigation plan" fails to identify appropriate compensatory mitigation for the wetland impacts. Essentially all of the on site

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
HABITAT PROGRAM/OLYMPIA FIELD OFFICE
510 Desmond Drive SE/Suite 103
LACEY, WASHINGTON 98503

January 15, 1998

Colonel James M. Rigsby
District Engineer
Corps of Engineers, Seattle District
P.O. Box 3755
Seattle, WA 98124-2255

Attn: Jonathan Freedman, Project Manager

Re: 96-4-02325 Port of Seattle, Seattle-Tacoma International Airport

Dear Colonel Rigsby:

The National Marine Fisheries Service (NMFS) has reviewed the referenced public notice to construct a third runway at Seattle-Tacoma International Airport. The proposed work includes filling of wetlands and rechanneling portions of Miller Creek, drainage channels in the Miller Creek basin and portions of Des Moines Creek. Our comments are based on NMFS' responsibility to protect and enhance marine, estuarine and anadromous fishery resources and their habitats.

While there are currently no anadromous fish species listed pursuant to the Endangered Species Act (ESA) present in the project area, there could be in the near future or prior to completion of this project. If this does occur, consultation with NMFS may be necessary. NMFS' main interest during such a consultation would be impacts of the project on sedimentation, water quality and instream flows. The applicant should be required to obtain and abide by conditions of a Hydraulic Project Approval (HPA) issued by the State Department of Fish and Wildlife. It is likely the HPA will sufficiently condition activities which may be of concern to us.

Thank you for the opportunity to comment on this action. Should you require additional information, please contact Mr. Gordon Zillges at (360) 753-9090 or at the letterhead address.

Sincerely,

Steven W. Landino
Washington State Habitat Branch Chief

cc: USFWS, Nancy Brennan Dubbs,
EPA, Steve Roy
WDFW, Phil Schneider
Dept of Ecology, Tom Luster

Attachment A

January 16, 1998

Permit Coordination Unit
Department of Ecology
Post Office Box 47703
Olympia, Washington 98504-7703

SUBJECT: NAME: Port of Seattle NO: 96-02325-02 WRIA: 09.0371

Dear Permit Coordination Unit:

The Washington Department of Fish and Wildlife revieved the above-referenced Public Notice and has the following comment(s):

HOLD See attached letter.

OTHER See comments below.

1. The plans I have seen for the channel realignment were well done and will mitigate our concerns for habitat restoration and if successful will be better than the existing condition of the old channel. I want to insure that enough wood debris for habitat components are included in the channel and that a minimum of one LWD for every channel width. In addition I have requested that the new channel that will be constructed to replace the three streams have fish access at least the lower portion of the stream that enters Miller Creek. There may be opportunities to create spawning areas if there is enough flow.

2. The proposed plan to develop extend runway 34R and construct the Southeast Aviation Support Area (SASA) will involve the relocation and the culverting of Des Moines Creek. The goal and WDFW requirements are that the new channel length will be the same as the existing channel. It is my understanding that portions of this stream will be daylighted and 200 feet will be culverted for the runway. It would be difficult to count the culverted portion of the stream as channel length due to the diminished value of the habitat within the culverted portion of the stream. I would suggest that ways should be found so that channel length is not decreased and mitigation be provided for portions of the stream that will be culverted.

3. Due to the size of this project and the amount of fill that will be utilized there is serious risk to water quality impacts to Des Moines and Miller Creek especially from erosion and sedimentation during construction. Therefore, it is extremely important that the best possible Temporary Erosion Control Plan is developed and is continually monitored throughout the construction period. The designation of an experienced Sedimentation and Erosion Control Representative (ECR) could help in keeping ahead of potential erosion control problems. I would recommend that the ECR have water quality , biological and

Post-it® Fax Note 7671	Date 1/16/98	# of pages ▶ 3
To Gordy Zabas	From Phil Shradrick	
Co./Dept. NMFS	Co. WDFW	
Phone #	Phone # 425-391-4365	
Fax # 360-753-9517	Fax # 425 391-6183	

some engineering background. In addition there should be some preproject assessment of quality of the habitat on both Des Moines and Miller Creek so any adverse impacts from sedimentation from this project can be quantified if a major sedimentation event occurs so appropriate remedial efforts can be taken by the project proponents to restore habitat. Timing construction activities so that they are done during the months when rainfall is at a minimum would be one excellent way to alleviate water quality impacts from sediment. This would also help to insure that sediment from the construction site would not interfere with fish eggs incubating in the gravel. The HPA for both Des Moines and Miller Creek will have work window of July 15 to October 1.

4. The wetland mitigation plan will meet WDFW requirements for wetland impacts from the runway expansion. If successful the off site mitigation area with its high water table, proximity to the Green River, and the wetland mitigation plan should enhance this area for wildlife and over time mitigate for loss of wildlife habitat at the runway site. WDFW understands the need for offsite wetland mitigation for airport safety and the lack of large land areas to construct a mitigation area, however the downstream areas of both Des Moines and Miller Creek will be impacted from the loss of wetlands in their respective headwaters. I calculate approximately 4.96 acres which are portions of wetlands #3,4,5,9,13,19,23,37, and 36 that are adjacent to and flow into Miller Creek. In Des Moines Creek a total of 2.48 acres of wetland numbers 51 and 52 that are adjacent to and flow into Des Moines Creek will be impacted by the borrow area and the SASA project. Mitigation for loss of export production should be implemented above and beyond what is proposed for the Miller Creek and Des Moines Creek relocation mitigation in downstream areas of Miller and Des Moines Creeks. Mitigation could consist of LWD placement, vegetation enhancement or other habitat projects. it will be important that base flows will not decrease as a result of loss of the wetlands. If base flow are lowered than ways should be found to supplement base flows. In addition at the same time mitigation for local impacts to wildlife from fill in wetlands and upland areas could be done in the riparian corridor on Miller and Des Moines Creek. Projects could include, tree planting especially conifers, riparian enhancement, wildlife enhancement, and possible cooperation with City of Des Moines and Normandy Park in the restoration of the estuaries at the mouth of Des Moines and Miller Creek.

If you have any questions concerning this response, please contact the Area Habitat Biologist, Phil Schneider, at (425) 391-4365.

Sincerely

Gayle Kreitman
Environmental Review and Technical Assistance Division
Habitat Management Program

GK:PS:

Enclosure: Hold Response Letter (WDFW Log No. 00-C7566-01)

cc: Schneider, WDFW - Issaquah
Ted Muller, WDFW - Mill Creek
Rod Malcomb, Mukleshoot Indian Tribe

United States Department of the Interior

FISH AND WILDLIFE SERVICE
North Pacific Coast Ecoregion
Western Washington Office
510 Desmond Drive SE, Suite 102
Lacey, Washington 98503
Phone: (360) 753-9440 Fax: (360) 753-9008

January 22, 1998

Colonel James M. Rigsby
District Engineer
Corps of Engineers, Seattle District
P. O. Box 3755
Seattle, Washington 98124-2255
Attention: Jonathan Freedman, Project Manager

Re: 96-4-02325, Port of Seattle

Dear Colonel Rigsby:

The U. S. Fish and Wildlife Service (Service) has reviewed the above referenced public notice to construct a runway, two runway safety areas, south aviation support area (SASA), and borrow site at the Seattle-Tacoma Airport, King County, Washington. Nancy Brennan-Dubbs, of my staff, conducted a site visit on August 12, 1997.

The proposed project, including the associated mitigation site, will result in total direct impacts to approximately 14.56 acres of waters of the United States, including wetlands. Approximately 11.87 acres of waters of the United States, including wetlands, will be impacted due to the proposed airport development. Wetland impacts total 11.42 acres including: 5.46 acres for the runway; 2.34 acres for the runway safety areas; 1.70 acres for the SASA; and 1.92 acres for the borrow site. Impacts to other waters include the filling and rechanneling of approximately 980 feet (0.25 acres) of Miller Creek, 2,280 feet (0.15 acres) of drainage channels in the Miller Creek basin, and 2,200 feet (0.5 acres) of Des Moines Creek. In addition to these impacts, the proposed mitigation will result in additional impacts to approximately 2.69 acres of wetlands due to construction access, regrading, and channel creation.

Due to the diversity of habitat within the proposed project site, a variety of wildlife likely utilize the site for foraging and reproduction. Wetland habitat types to be directly impacted by the proposed project include forested, scrub-shrub, and emergent wetlands. Avian species likely to be impacted by the loss of these habitats include passerine birds, waterfowl, and raptors, including accipiters and northern harrier. Other

wildlife likely to be impacted include small mammals and amphibians. The airport is currently subjected to loud noise and other human disturbance, which likely restricts wildlife use to those individuals and species which are more adaptable and/or have become habituated to these circumstances. However, as there is limited access to the wetlands due to airport security, wildlife do not encounter significant direct human encounters, and are provided increased protection.

Mitigation for the proposed project would be both on-site and off-site. The off-site mitigation is within a different watershed from the project impacts. Off-site mitigation is proposed, as Federal Aviation Administration guidance states that wildlife attractions, e.g., wetlands, within 10,000 feet of the edge of an active runway are not recommended, and wildlife control activities in wetlands near the airport would conflict with wetland habitat.

To mitigate for the proposed impacts, the applicant proposes the following on-site mitigation within the Miller Creek watershed:

1. Relocate Miller Creek around the footprint of the proposed project.
2. Enhance fisheries habitat in relocated sections of Miller Creek
3. Establish native woody vegetation buffers along Miller Creek.
4. Excavate a new floodplain to compensate for floodplain areas filled.

The proposed off-site mitigation is within the city of Auburn, adjacent to the Green River. The proposed mitigation site is primarily upland. However, 2.69 acres of wetlands would be impacted due to temporary road construction, regrading, and channel construction. The proposed mitigation site is an abandoned agricultural field, vegetated predominantly with nonnative and native herbaceous species. The proposed mitigation includes approximately 3 acres of upland forest buffer, and the creation of approximately 14.68 acres of forested wetlands, 2.0 acres of shrub wetlands, and 4.32 acres of emergent wetlands.

The public notice and mitigation plan are inconsistent regarding the acreage and number of wetland impacts from the proposed project. Page 1 of the public notice states that 11.42 acres of wetlands would be impacted. However, Sheet 2 of 29 of the public notice and the mitigation plan state that 12.23 acres of wetlands would be impacted. The number of wetlands impacted also varies between 34 (mitigation plan) and 35 (public notice). These discrepancies need to be explained or corrected.

The Service has previously raised concerns regarding the location and inadequacy of the proposed mitigation. Enclosed are copies of Department of the Interior comments regarding the Draft Supplemental EIS and Final Supplemental EIS (Enclosures). These concerns are still valid. Mitigation located outside the watershed would not benefit wildlife directly impacted by the project. Although the EIS documents state that on-site and off-site mitigation opportunities within the watershed are limited, mitigation sites closer to the impact site should be considered further. The creation or restoration of wetlands within 10,000 feet of the active runway would not increase wildlife attractions over existing levels but would simply replace part of the habitat which has been destroyed by the project.

The Service believes that portions of the proposed project are not the least environmentally damaging alternative. Although we concur with the selection of the on-site alternative for constructing a third runway, we believe that additional wetland impacts may be avoided by the elimination or downsizing of other project features. For example, the borrow site could be located off-site. A combination of on-site and off-site sources of material is proposed for use. However, no off-site sources have been identified at this time. The elimination of the on-site borrow pits would reduce the wetland impacts by approximately 1.9 acres, of which 1.62 acres are forested wetlands and 0.22 acres are scrub/shrub wetlands. The applicant should identify off-site sources and/or reconfigure on-site borrow sites to avoid impacts to aquatic resources, including wetlands.

The proposed mitigation does not adequately compensate for the direct and indirect impacts of the proposed project. The mitigation does not fully account for the time delay in reestablishing the wetland values and the closer proximity of human use and disturbance. To recreate wetland functions, especially those provided by forested and scrub-shrub communities, requires many years. The proposed development will also increase human use near wetlands, likely reducing the wildlife use of these habitats. The applicant needs to provide additional mitigation to compensate for these impacts.

The Service is also concerned that the proposed mitigation site may require artificial, experimental methods to create the necessary conditions for achieving wetland hydrology. The Final EIS stated that the proposed mitigation site would require the use of bentonite if sufficient low permeability materials were not available on-site. Should artificial means be required to provide the appropriate conditions to establish wetland hydrology, we recommend that additional mitigation or an alternative site be required due to this increased risk of maintaining wetland hydrology in perpetuity.

The mitigation plan was missing Table 3.3-2. Therefore, we are unable to evaluate the adequacy of the performance standards at this time. We have requested a copy of this missing information and will provide any additional comments in the near future following its receipt.

Based on the information contained in the public notice, the Service believes that a permit should not be issued for the proposed project at this time. The applicant should evaluate off-and on-site alternatives to the borrow sites, and identify mitigation sites within the same watersheds as the proposed impacts. We would be pleased to meet with the applicant to discuss these issues. Should the Corps decide to issue a permit at this time, the Service requests that additional mitigation for wildlife impacts be provided.

These comments have been prepared under the authority of and in accordance with the provisions of the Fish and Wildlife Coordination Act (48 STAT. 401, as amended, 16 U.S.C. *et seq.*), and other authorities mandating Department of the Interior concern for environmental values. They are also consistent with the National Environmental Policy Act.

Thank you for the opportunity to comment on this matter. If a permit is eventually issued for the above proposed project, we would appreciate a copy of the decision document. Should you require

AR 036224

additional information, please contact Nancy Brennan-Dubbs, of my staff, at (360) 753-5835 or at the letterhead address.

Sincerely,

Nancy J. Gloman

Nancy J. Gloman
Acting Supervisor

nbd/jmc
Permits/96-4-02325/King County
Enclosures
c: EPA, Seattle (Roy)
NMFS, Lacey (Carlson)
WDFW, Region 4
WDE, Lacey (Luster)
WDE, Bellevue (Stockdale)
Applicant
permits/seatac

AR 036225

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, D.C. 20240

ER 97/85

JUL 16 1997

RECEIVED

SEP 16 1997

US FISH & WILDLIFE SERVICE
REG 1 DMC PORTLAND OR

Dennis Ossenkop
ANM-611, Federal Aviation Administration
Northwest Mountain Region, Room 450
1601 Lind Avenue, S.W.
Renton, Washington 98055-4056

File

Dear Mr. Ossenkop:

The Department of the Interior has reviewed the Final Supplemental Environmental Impact Statement (FSEIS) for the Proposed Master Plan Update Development Actions at the Seattle-Tacoma International Airport, Washington. The following comments are provided for your information and use when preparing the Record of Decision (ROD) on the proposed project.

The FSEIS does not adequately address the Department's April 8, 1997, comments on the DSEIS. The only response to our General Comments is under issue 9-M on pages F-127-8 in Appendix F of the FSEIS. It states airport safety requirements prevent replacement of wetlands within the immediate airport vicinity. However, the Federal Aviation Administration Advisory Circular for "Hazardous Wildlife Attractants on or Near Airports" (AC No. 150/5200-33) states the siting criteria are recommendations and guidance. The ROD should use this guidance with site specific information on wildlife hazards and substantiated safety risk for the Seattle-Tacoma Airport when considering the replacement of wetlands.

All of our comments on the DSEIS should be fully addressed in the ROD for this project. Depending on the adequacy of these responses, our Fish and Wildlife Service (FWS) may provide additional comments on the proposed project to the U.S. Army Corps of Engineers through the section 404 permit process of the Clean Water Act. These comments may include a request that the proposed permit be conditioned or denied if the proposed project has not fully minimized and otherwise mitigated impacts to waters of the United States, including wetlands, and the associated fish and wildlife resources.

The concerns expressed in our April 8, 1997, comment letter which have not been adequately addressed are provided in the following summary:

1) The proposed mitigation is inadequate. The impacts resulting from increased human activities and smaller size of partially avoided wetlands need to be adequately mitigated;

2) Wildlife mitigation options should be provided close to the impact site;

3) Justification should be provided for reduced mitigation ratios;

Dennis Ossenkop, Federal Aviation Administration

4) Additional mitigation should be included to compensate for values lost due to time delays in achieving wildlife values and the experimental nature of the proposed mitigation; and

5) Adequate maintenance at a high level needs to be provided at the created wetland to ward off the potential reed canary grass invasion.

We regret that our April 8, 1997, comments, provided on pages G744-5 in Volume 3-Appendix G of the FSEIS, contain two oversights. In the third paragraph under Environmental Statement Comments, the third sentence should read: "We recognize the potential risk..." and not "We do not recognize...." Additionally, our comment letter should have stated the mitigation ratio is not sufficient for compensating for wetland values lost due to time delays.

Sincerely,

Willie R. Taylor
Director
Office of Environmental Policy
and Compliance

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Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30333
March 31, 1997

RECD ANM-610
PGM, A CAP RP
[illegible] 1997

mental Environmental Impact Statement
elopment Actions at Seattle-Tacoma
of the U.S. Public Health Service.

e been generally addressed in this draft
mme[illegible] offer at this time. The adverse
n pr[illegible] have been presented and
n considered.

ent on this DSEIS. We would appreciate
vironmental impact statements which may
oped under the National Environmental Policy

J. Holt

olt, M.S E.H
ms Group (F29)
r for Environmental Health

CDC 53

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

RECD ANM-1
APR 14 '97
ANM-1
ACTION:
INFO:

ER-97/85

APR 8 1997

Mr. Frederick M. Isaac
Director, Northwest Mountain Region
Federal Aviation Administration
Room 450
1601 Lind Avenue, S.W.
Renton, Washington 98055-4056

RECD ANM-610
PLAN, PGM, & CAP BR
APR 15 1997
ANM-610

Dear Mr. Isaac:

This is in response to the request for the Department of the Interior's comments on the Draft Supplemental Environmental Impact Statement (DSEIS)/Section 4(f) Evaluation for the proposed Master Plan Update Development Actions at the Seattle-Tacoma International Airport, Washington.

Section 4(f) Evaluation Comments

We concur that there is no feasible and prudent alternative to the proposed project, if project objectives are to be met. We also concur with the proposed measures to minimize harm to Section 4(f) resources which may be affected by the proposed project.

Environmental Statement Comments

Our comments focus primarily on the proposed mitigation of the wetland fill not associated with Miller Creek. However, this focus should not be construed to mean the proposed project has fully minimized impacts to waters of the United States, including wetlands, and the associated fish and wildlife resources. The proposed project mitigation is off-site and within a different watershed. The 47-acre mitigation site is part of a larger 69-acre parcel within the City of Auburn, and includes approximately 4.3 acres of a reed-canary grass-dominated wetland as part of the 47-acre portion. The remaining 22 acres at the site are to be reserved for future use according to the Final Environmental Impact Statement (FEIS). Because the proposed project would likely require a permit under section 404 of the Clean Water Act, the U.S. Fish and Wildlife Service may provide additional comments when the permit application is reviewed.

The DSEIS does not propose adequate mitigation for wetlands and associated fish and wildlife resources. The project as currently proposed would result in the direct fill of 12.22 acres. This wetland loss is an increase from the 10.15 acres stated in the FEIS for the proposed project even though some wetlands would only be partially filled. The wetland vegetation types to be impacted consist of 7.34 acres of forested wetland, 2.00 acres of shrub-scrub, and 2.88 acres of emergent marsh. Although filling would result in the loss of 12.22 acres, additional impacts would occur as a result of the smaller size and closer proximity to human activities following project construction. The FSEIS needs to include mitigation for these wetland impacts.

The DSEIS states on-site mitigation or mitigation within the airport is not feasible as most lands surrounding the airport are developed and not enough available land exists for creating compensatory mitigation. In addition, the FAA has indicated "wildlife attractions" within 10,000 feet of the edge of an active runway are not recommended and wildlife control activities in wetlands near the airport would conflict with wetland habitat mitigation goals. We do not

AR 036228

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recognize the potential risk of wildlife and human injury resulting from collisions between avian fauna and aircraft. However, creation or restoration of wetlands within 10,000 feet of the active runway would not increase 'wildlife attractions' over existing levels but would replace the habitat destroyed by the proposed project within the same general area. Mitigation located outside the watershed would not benefit wildlife directly impacted by the project except for those species with large foraging areas and territories, such as bald eagles and waterfowl. Although on-site and off-site mitigation within the watershed may be limited and some mitigation may need to occur within another watershed, the FSEIS should provide mitigation options close to the impact site.

The compensation ratios stated in the DSEIS are: 2.0:1 for forested wetland; 1.0:1 for shrub wetland; and 1.5:1 for emergent marsh. The total compensation acreage is approximately 21 acres. However, the FEIS identifies a higher mitigation acreage (27.32 acres) for a project with fewer impacts than that currently proposed to compensate for lighter mitigation ratios of forested and shrub-scrub wetlands. As the DSEIS does not justify the reduced mitigation ratios and acreage, this information should be provided in the FSEIS. In addition, the proposed mitigation would compensate for wetland values lost because the time delay for recovering the lost wildlife values is not sufficiently reflected in the proposed ratios and reed canary grass is dominant in the wetlands adjacent to the proposed mitigation site. Because reed canary grass is very invasive, it would likely become established in the newly created wetland and add further challenges for creating a wetland with diverse plant species and values. Thus, the FSEIS should provide for the high maintenance of the created wetland to ensure a wide range of wetland values for wildlife species.

- G-745 -

Furthermore, the creation of wetlands at the proposed mitigation site would require experimental construction methods. The FEIS states a low permeability layer needs to be constructed to provide a perched water table. Bentonite would be utilized if sufficient low permeability materials are not available on-site. When artificial means are employed to create a wetland system, the risk for created wetlands to maintain themselves in perpetuity increases. Because of this increased risk, the FSEIS should provide mitigation acreage beyond that currently proposed, if this site would be used for mitigating anticipated impacts.

Summary Comments

The Department of the Interior has no objection to Section 4(f) approval of this project by the Department of Transportation.

We appreciate the opportunity to provide these comments.

Sincerely,

Willie R. Taylor
Director, Office of Environmental
Policy and Compliance

cc: Ms. Barbara Minkle
Health, Safety and
Environmental Management
Port of Seattle
Post Office Box 68727
Seattle, Washington 98168

AR 036229

MILLER AND WALKER CREEKS SALMON REPORT

by Andy Batcho

On a recent walk to identify new stream habitat improvement project areas, I was pleasantly surprised by the numbers of coho salmon fry residing in the pools of Miller and Walker Creeks. Almost every pool I checked had 6 to 12 young coho from 2 to 3 inches long. Standing quietly near a pool or tossing insects in upstream of a pool causes these aggressive surface feeders to jump clear of the water for a snack.

Some of these young coho are the result of natural spawning. Most were planted by our community's kids at Spring Fling last March and came from Trout Unlimited's egg hatchery located at the SW Suburban Sewer District facility. They will live in these local streams for one year prior to smolting (moving to salt water).

To survive that first year, the coho need pools 2 to 3 feet deep. In-stream logs and rocks cause pools to form during high water flows. Cover habitat is provided by mature plants along the stream. Plants hanging over the stream provide a place for the fish to hide from predators, shade to keep the water cool, and biofiltration to reduce the effects of fertilizers and pesticides. These plants also stabilize the stream bank with root mass and attract terrestrial insects, which serve as a coho food source. The simplest and single most helpful thing that streamside residents can do to improve stream conditions is to plant the shoreline with native plants.

These coho will be returning in 2 years as adults of 4 to 12 pounds. Now (mid-November) is the best time to see adult salmon returning to our local streams. If you spot fish, please call 246-1457 and leave me a message telling the date and place of your sighting and how many fish you spotted.

All residents are welcome to help Trout Unlimited (TU) with stream enhancement projects. TU also provides projects for scouting groups. For more information about your local streams, contact me at 246-1457. Thanks for your care and concern for our local streams. Our coho are doing well.

COMING COVE EVENTS

Dec. 6 (a.m.)	Holiday Bazaar
Dec. 6 (p.m.)	Santa Party
Jan. 16	Teen Dance
Mar. 13	Teen Dance
Apr. 11	Easter Egg Hunt
May 01	Teen Dance

HELP US DECORATE FOR THE HOLIDAYS

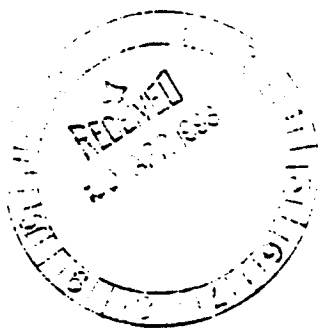
Is Christmastime your favorite holiday season? Start celebrating early by helping us decorate the inside of the COVE building. Volunteers will be putting up a tree and hanging swags on Friday, Nov. 28 (the day after Thanksgiving) at 9:00 a.m.. We could use the help and would love to have you join us for the fun.

Colleen West has designed new decorations for us this year.

They're VERY pretty. Thanks, Colleen!

BELLEVUE
CHAMBER
of COMMERCE

April 17, 1998



Colonel Michael Rigsby, P.E.
District Engineer
Seattle District
U.S. Army Corp of Engineers
P.O. Box 3755
Seattle, WA 98124

Dear Colonel Rigsby:

On behalf of the Board of Directors of the Bellevue Chamber of Commerce, we would like to extend our support for the Port of Seattle's 404-permit application under the Clean Water Act. We believe that this permit is crucial for the Port if its wants to keep its schedule for the Second All Weather Runway at Sea-Tac Airport.

As you know, under the Clean Water Act, the Port of Seattle is required to mitigate and replace wetlands lost. Under most circumstances, the replacement occurs in the same drainage basin. However, this can not take place because the Federal Aviation Administration prohibits the creation of wetlands within two miles of large airports. Wetlands attract large numbers of birds, which pose a serious danger to the operation of aircraft.

After an exhaustive search and $2 million, the Port of Seattle has found an area that is suitable for the creation of a wetland with a forested buffer in Auburn. The Port will be filling 11 acres of low quality wetland and in return will be creating 47 acres of high quality wetland. We believe that is an appropriate action that balances the needs of the environment with the economic needs of our growing economy.

We believe that it is imperative that the Port of Seattle move ahead with its plans for the Second All Weather Runway at Sea-Tac Airport. The granting of this permit will allow the Port to move ahead expeditiously and help cement our position as a participant in the global economy.

Thank you for taking the time to consider our thoughts.

Sincerely,

George P. Brace
Chair, Board of Directors

Sarah Langton
President & CEO

cc: Jonathan Freedman, Project Manager

10500 NE 8TH STREET SUITE 212 • BELLEVUE, WASHINGTON 98004
tel 425.454.2464 • *fax* 425.462.4060 • *e.mail* staffteam@bellevuechamber.org • *internet* http://www.bellevuechamber.org

CUTLER & STANFIELD, L.L.P.

1675 Broadway, Suite 2300
Denver, CO 80202
Telephone: (303) 825-7000
Facsimile: (303) 825-7005

RECEIVED
27 APR 1998
Ref:

FACSIMILE COVER SHEET

TO: Jonathan Freedman

FAX NUMBER: (206) 764-6602

TELEPHONE: (206) 764-3495

FROM: Polly Jessen

DATE: April 17, 1998

NUMBER OF PAGES (Including this cover sheet):

COMMENTS:

As you requested, attached are additional copies of the two letters we discussed. Also as we discussed, we will be providing comments to you by fax on Monday, April 20th and will provide the original of our comments and color attachments to you on Tuesday, April 21st. I will phone you on Thursday, April 23rd to schedule a time to meet. Thank you for taking the time to talk with us today. Until next week.

_____ Hard copy will follow via _____ regular _____ overnight _____ hand delivery.

_____ Hard copy will not follow.

IF YOU HAVE DIFFICULTY RECEIVING THIS TRANSMISSION, PLEASE CALL: Shannon AT (303) 825-7000

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CUTLER & STANFIELD, LLP

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ELIOT R. CUTLER
JEFFREY L. STANFIELD
SHEILA O. JONES*
PERRY M. ROSEN*
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BARRY CONATY*
STEPHEN M. KAPLAN*
SARAH M. ROCKWELL*
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CHARLES A. COWAN
POLLY B. JESSEN*
CHRISTOPHER M. KAMPER*
WILLIAM C. MALLEY
CANA C. NIFOSI
BARBARA PALEY
W. ERIC PILSK
TIM A. POHLE
JOHN E. PUTNAM*
*ADMITTED IN DC

700 FOURTEENTH STREET, N.W.
WASHINGTON, D.C. 20005-2014
TELEPHONE: (202) 624-8400
FACSIMILE: (202) 624-8410

April 14, 1998

VIA FACSIMILE

Colonel James M. Rigsby
District Engineer
United States Army Corps of Engineers
Seattle District
P.O. Box 3755
Seattle, Washington 98124-2255
Attn: Mr. Jonathan Freedman, Project Manager

Re: Public Notice 96-4-02325, Port of Seattle, March 6, 1998, Extension of Comment Period

Dear Colonel Rigsby:

On behalf of the cities of Normandy Park, Des Moines, Burien, Tukwila, Federal Way, and the Highline School District, individually, and collectively as the Airport Communities Coalition ("ACC") we respectfully request an extension of the public comment period on the Port of Seattle's ("Port") section 404 application for a permit to fill approximately 12 acres of wetlands in the Des Moines Creek and Miller Creek Watersheds ("Port Permit Application").

Under the Army Corps of Engineers ("Corps") regulations, extension of a public comment period typically is warranted where, among other things, (i) a proposal is controversial; (ii) additional time may be required for a site visit; (iii) the original comment period was the minimum allowable; or (iv) other pertinent factors indicate that the original comment period should be extended. 33 C.F.R. § 325.2(d)(2). In this instance, the Airport Communities Coalition believes that circumstances clearly warrant an extension of the comment period.

The Port's Permit Application is far from a routine proposal. In fact, as evidenced by the April 9th public hearing, this permit application has proven to be highly controversial.

Despite an opportunity to provide written comments in January, over 300 people attended the public hearing and over 85 people signed up to speak. Not only the general public, but representatives of the resource agencies and Congressman Adam Smith were in attendance. One of the most environmentally critical issues raised during the hearing was the necessity of considering on-site and same-watershed mitigation alternatives for the Port's proposed destruction of wetlands. This issue is highly technical and has been raised by the resource agencies as well as by the public as a basis for permit denial. A ten-day comment period clearly is insufficient to ensure that interested members of the public have an opportunity to investigate the site and the mitigation options before their final opportunity to comment has expired. In addition, where as here, a joint hearing has been held, logistically it makes more sense for both agencies to provide the same comment period. The Washington Department of Ecology has allowed a 20-day comment period; the Corps should at least provide the same. Since the Corps has chosen to provide the *minimum* period for comment allowable after a public hearing, 33 C.F.R. § 327.8(g), these factors alone certainly warrant an extension of the comment period.

The Corps also should consider the fact that both EPA and the United States Fish and Wildlife Service have objected to the permit. The bases for those objections were only recently revealed. The ACC offered to work with the agencies once we learned of their objections. The ACC also has requested timely notification of all future agency meetings regarding the Port's Permit Application, so that a representative of the Airport Communities Coalition or its constituent cities may attend and provide technical input to the process. We have not yet received a response. Therefore, it may be that the ACC's last remaining avenue to provide this input is through written comments during this comment period. These comments will require additional time to prepare and present in written format.

The Corps has committed to giving "due consideration" to the views of local officials under its own regulations. 33 C.F.R. § 320.4(j)(1). The affected Des Moines and Miller Creek watersheds are largely located within our cities, and, under state law, are subject to our local regulations. The ACC communities therefore have the greatest stake in the outcome of the Corps of Engineers' permitting process. In light of the significance of the Port's proposal to our communities and the factors discussed above, we ask that the Corps extend the public comment period by at least thirty days.

Sincerely,

Peter J. Kirsch

cc: Lee Danckar, Director, EPA Region 10
Nancy Gloman, United States Fish and Wildlife Service

City of Burien
City of Tukwila
City of Des Moines
City of Federal Way
City of Normandy Park
Highline School District

AIRPORT COMMUNITIES COALITION

John L. Rankin
Chair

April 6, 1998

Mr. Jonathan Freedman, Project Manager
Regulatory Branch
United States Army Corps of Engineers
Seattle District
P.O. Box 3755
Seattle, Washington 98124-2255

Re: Public Notice 96-4-07325, Port of Seattle, December 19, 1997

Dear Mr. Freedman:

The cities of Normandy Park, Des Moines, Burien, Tukwila and Federal Way, respectfully request that we be included in all future meetings between the Corps of Engineers and the Port of Seattle ("Port") regarding the Port's section 404 application for a permit to fill approximately 12 acres of wetlands in the Des Moines Creek and Miller Creek Watersheds.

We are aware that at least one meeting has been held at which the Port, U.S. EPA Region 10, the U.S. Fish and Wildlife Service, King County and other agencies were represented. As you should be aware, the affected Des Moines and Miller Creek watersheds are largely located within our cities, and are subject to our local regulation under state law; we therefore have the greatest stake in the outcome of the Corps of Engineers permitting process. Perhaps more than any other community, our communities would be directly affected by the proposed permit which would result in the irreparable loss of these wetlands in the Des Moines Creek and Miller Creek Watersheds. We, therefore, request timely notification of all future meetings, so that a representative of the Airport Communities Coalition or its constituent cities may attend and provide our technical input to the process.

I look forward to hearing from you at your earliest convenience.

Sincerely,

John Rankin, Chairman
Airport Communities Coalition

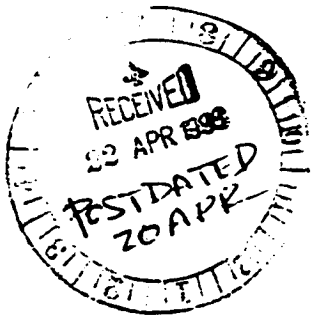
cc: Fred Weinmann, EPA Region 10
Nancy Gloman, Fish and Wildlife Service

21630 11th Avenue S. Des Moines, WA 98198-6398 (206) 870-6526 Fax (206) 870-6540

RCAA
Regional Commission on Airport Affairs
19900 4th Ave SW
Normandy Park, WA 98166
(206) 824-3120
FAX (206) 824-3451

CERTIFIED NO. P 163 756 492
RETURN RECEIPT REQUESTED

April 17, 1998



U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

Reference: 96-4-02325
Port of Seattle

Attention: Jonathan Freedman, Project Manager

Dear Mr. Freedman:

The Regional Commission on Airport Affairs ("RCAA") is a non-profit organization concerned with regional transportation issues affecting Puget Sound area residents. RCAA's mission statement includes the goals of finding sound, environmentally sensible solutions to our region's growing transportation needs.

We appreciate the opportunity to respond to the Corps' request and are submitting comments concerning watersheds and wetlands located in the Miller Creek and Des Moines Creek related to facilities operated by the Port of Seattle ("POS" or the "Port") at Seattle-Tacoma ("SeaTac") Airport. These comments supplement our previously submitted written comments and our testimony at the public hearing on April 9, 1998. We believe these following comments will provide new information that has not been addressed or discussed in the proposed permit.

THE PERMIT APPLICATION FAILS TO IDENTIFY THE SCOPE OF THE WORK

The Port of Seattle is proposing the elimination of an undetermined number of acres of wetlands and undetermined lengths of streams and creeks located in both the Miller Creek and Des Moines Creek basin systems. We emphasize the term undetermined because the extent of the wetlands and streams which the Port of Seattle proposes to destroy are by the Port's own admission unknown at this time. A footnote on page one of the application blithely admits "[t]he quantity of wetlands to be filled is based on the best information available at this time. It is possible that some additional wetland areas and acreage could be identified when access is available to all wetlands in the project area."

2

We note that a major part of the activity related to the proposed construction of the runway project will occur on property, which the Port of Seattle does not presently own. One such area is currently located in the City of SeaTac to the West of Sea-Tac airport. This area, designated the Westside Sub-Area, (the "Westside") consists of approximately 240 acres. Miller Creek extends throughout this area. Yet the permit ignores the effects of construction activities will have on thousands of feet of Miller Creek that extends throughout the Westside area. Since the extent of wetlands and streams located in the Westside area have not been assessed it is not possible for the public or agencies to comment intelligently upon the proposed actions or assess the mitigation required to replace affected wetlands. This fundamental flaw alone is sufficient to warrant denial of the permit application.

3

THE PORT HAS FAILED TO PROVIDE A HYDROLOGICAL STUDY OF THE AREA AND ASSESS THE IMPACTS OF CONSTRUCTION ACTIVITIES ON THE UNDERLYING AQUIFER

According to the Port of Seattle's environmental impact statement the Master Plan projects associated with the permit application would require 26.4 million cubic yards of fill dirt to be transported to the construction site. [1] This fill material would be placed on top of the Highline aquifer, a regional unconfined aquifer that supplies the Seattle Water Department, the Highline Water District and other local water supply systems. The Port has failed to provide an investigation and analysis of the effects of this fill operation on the surrounding hydrology No soil studies or analysis has been submitted for review. Normally a comprehensive study would be conducted by a professional geotechnical engineering firm. There is no evidence in the application that the Port has conducted any analysis including collection of soil boring samples to identify the strata underlying the construction area. Without this analysis it is not possible to assess the impacts of the fill operation upon the Highline aquifer and surrounding drainage system. This is a fundamental flaw alone sufficient to warrant denial of the permit application.

4

The application similarly fails to identify the impacts caused at areas that would supply the million of yards of fill dirt for the airport project. We are aware that one of the potential borrow sites for the runway project is a 200+ acre site located on Maury Island. The impacts on the local aquifer supplying Vashon Island residents and the effects of a large-scale mining operation and barge off-loading facility on fish habitat in Puget Sound, for example, have not been identified or assessed. Because the permit application fails to project an environmental impact statement for the proposed borrow sites supplying the fill dirt for the project the permit should be denied.

[1] Final Supplemental EIS, Section 5-4,Table 5-4-1, p.5-4.20, May 1997

THE CORPS HAS PREVIOUSLY REQURED "SAME-BASIN"REPLACEMENT WETLANDS FOR THE PORTS PROPOSED SASA PROJECT

5

In its February 3, 1998 to the Corps of Engineers the Environmental Protection Agency (EPA) recommended that the Corps "evaluate other off-site facilities such as Paine Field for meeting the overall project purpose for SASA and avoiding the wetland impact. The FAA previously evaluated the Port of Seattle's proposed SASA facility and determined that replacement wetlands should be created in the same (Des Moines Creek) basin system of those destroyed in conjunction with the construction of the SASA facility. Areas of the existing golf course facility are adaptable for use as replacement wetlands. However, the proposed permit fails to consider the use of these existing areas for replacement wetlands. The permit application provides no explanation of why conditions have changed concerning the proposed replacement of wetlands in another unrelated basin system. Therefore the Corps should require that replacement wetlands for the SASA facility be provided in the same basin system.

THE FEDERAL AVIATION ADMINISTRATION RECENTLY REJECTED THE PORTS FUNDING REQUEST FOR THE PROPOSED SASA FACILITY

6

A section of the application proposes that 1.70 acres of fill be paced in wetlands and that a 2200 section of Des Moines Creek be re-channeled in order to construct the South Aviation Support Area (SASA) facility. On December 29, 1995 the Federal Aviation Administration (FAA) issued a Record of Decision disapproving the Port's application for funding of the SASA project. [2] After reviewing the Port's $11,300,000 request for land acquisition for the proposed SASA facility the FAA determined the land acquisition program was ineligible for federal funding and disapproved the project. (See enclosed copy of ROD) We fail to understand why the Corps permit application discusses the proposed SASA facility. The Port does not currently possess the property that is the subject of this proposed permit. The Port also has no reasonable prospect of purchasing the property for the SASA facility. Therefore the permit should be denied.

[2] Record of Decision dated December 29, 1995 issued by Federal Aviation Administration, Application No. 95-03-C-00-SEA, p.8

EVEN THE PORT NOW ADMITS THAT ITS PROPOSED PROJECTS EXCEED ITS FINANCIAL AND MANAGEMENT CAPABILITY

In the attached Policy and Staff Briefing memorandum dated January 23, 1998 the Port admits that the magnitude and complexity of the proposed capital program at the Port's Sea-Tac facilities is overwhelming the financial capacity of the Port. As a result of a recent review of the Port's capacity to deliver proposed projects Port staff have indicated that the following changes are needed to successfully implement the capital improvement program:

7

1. *Reschedule projects;*
2. *Refine and clarify responsibilities for the capital delivery system; and*
3. *Augment staff resources*

Because of the uncertainty now evident in the Port's Master Plan program of capital projects the Corps is in no position to be able to seriously evaluate the Port's application. The application should be rejected and the Port should be required to present a completed application indicating a completely funded capital program capable of being implemented prior to the issuance of any Section 404 permits for Port projects. The funding issue is critical element related to the proposed Section 404 permit because the cost of mitigating the impacts of wetland relocation must be secured prior to granting of permits. Mitigation must necessarily be in place before construction, before the damage can occur.

THE PORTS APPLICATION FAILS TO RESOLVE ISSUES RELATED TO THE CURRENT APPEAL OF THE PORTS NPDES PERMIT

8

On March 23, 1998 Citizens Against Sea-Tac Expansion (CASE) filed a notice of appeal of the proposed National Pollution discharge Elimination System (NPDES) permit which the Washington State Department of Ecology had issued to the Port. The appeal raises a number of substantive issues in the proposed permit. Among the issues is the failure of the permitting agency to comply with requirements under the Administrative Procedures Act for due process and public notice. Many of these issues relate to the proposed issuance of the Section 401 Water Quality Certification. Therefore, approval of the Section 401 certification should be withheld pending resolution of the NPDES permit appeal and other issues. Further, if the NPDES permit appeal results in a modification of the permit or a re-issuance of the NPDES permit for public review and comment, the proposed Section 404 permit and associated Section 401 Water Quality Certification process should be reopened.

THE PORT's ASSERTION THAT FAA ADVISORY CIRCULAR AC No. 150/5200-33 PROHIBITS THE RELOCATION OF WETLANDS IN THE MILLER AND DES MONES CREEK BASIN SYSTEMS IS IN ERROR

9

In its application the Port refers to Advisory Circular 150/5200-33 [3] and claims that the document requires that replacement wetlands for those destroyed may not be located in the same basin system within 10,000 feet of airport facilities. This is a misinterpretation of the FAA guideline and not consistent with direction provided in the Advisory Circular. In fact, the circular recommends that when expanding airports near wetlands that "wildlife hazards should be evaluated and minimized through a wildlife management plan prepared by a wildlife damage management biologist". [4] The Port has not conducted this recommended analysis or provided it for review in the permit application. Similarly the Port has failed to provide any evidence supporting its assertion concerning existing wildlife hazards. We point out that the Advisory Circular provides that "FAA recommends against the placement of airport development projects pertaining to aircraft movement in the vicinity of hazardous wildlife attractants." [5] Thus, if the Port is serious about its assertion that hazardous wildlife attractants exist from wetlands surrounding Sea-Tac, it follows that the Port should not consider constructing the new facilities it is proposing at Sea-Tac.

THE PERMIT APPLICATION FAILS TO CONSIDER OPTIONS WHICH WOULD PREVENT THE DESTRUCTION OF WETLANDS

10

We noted in our previous comments the failure of the Port to consider alternatives, which would prevent the destruction of wetlands. We submitted documents identifying other existing airports, which are currently designated by the Federal Aviation Administration as reliever airports for Sea-Tac traffic. We also provided a study concerning use of a Localizer Directional Aid (LDA) at Sea-Tac, which would eliminate the need for the proposed 3rd runway and therefore the need for the Section 404 permit. We submitted information showing that the Port of Seattle's own aviation planners admit that use of this technology is feasible as an alternative to a 3rd runway. We believe we have made a solid case that alternatives recognized by both the FAA and the Port of Seattle presently exist and are feasible alternatives. We are enclosing a copy of a July 10, 1996 memo to the Seattle Port Commission concerning two additional alternatives which the Port has refused to consider as an alternative to the destroy wetlands, namely use of GPS technology and consideration of locating the runway on property the Port currently owns.

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[3] Hazardous Wildlife Attractants on or Near Airports, FAA Advisory Circular No. 150/5200-33, May 1, 1997
[4] FAA Advisory Circular 150/5200-33, Section 2-4, May 1, 1997
[5] Ibid., Section 4-6, May 1, 1997

THE APPLICATION FAILS TO CONSIDER RECENT INFORMATION PROVIDED IN THE PORT's RECENT PASSENGER FACILTY CHARGE APPLICATION FILED WITH THE FAA

Recently, the Port filed an application with the Federal Aviation Administration to collect Passenger Facility Charges from passengers departing Sea-Tac airport. [6] The application reveals that the Port is in what could be characterized as a state of disorder concerning projects proposed at Sea-Tac airport. Among the issues is the perennial problem of financing airport related projects. The application also contains written comments provided by the airlines, which operate at Sea-Tac airport. (See enclosed copy of airline comments.) Delta and United Airlines are expressing serious reservations about the projects including the proposed runway project. One airline serving Sea-Tac writes "We are concerned because it appears that the port has not included all runway-related costs in its estimate." The current application has not been approved by the FAA. 11

We are including a copy of our comments submitted to the FAA concerning the Port of Seattle's application to collect passenger facility charges. We are also enclosing a copy of comments concerning the Port's PFC application made by the Seattle Community Council Federation. We feel that the issues raised by the airlines and the public concerning the Port's PFC application are pertinent to this proposed wetlands permit because the PFC funding issue (as well as other funding sources for the runway project) has not yet been resolved. The Port doesn't currently have in place a complete funding program for the projects contemplated in the proposed permit. We also note that the airline industry is currently "up in arms" against the use of PFC revenues for "non-aviation" related uses, an issue prominently raised in comments by many of Sea-Tac's tenant airlines. (See Appendix C in the application for airline's comments.) Enclosed is a copy of a statement made by the Air Transport Association dated March 12, 1998 concerning PFC use. We also note the ATA is currently suing the FAA and the Port Authority of New York for alleged diversion of PFC revenues for non-aviation related purposes.

THE APPLICATION HAS FAILED TO CONSIDER THE ADMINISTRATIONS RECENT CLEAN WATER INITIATIVE

In October 1997, subsequent to issuance of the final EIS for the proposed project, Vice-President Gore announced the Administration's Clean Water Initiative. This policy revises the previously existing policy on no net-loss of wetlands in the waters of the United States, and instead adopts a policy calling for a net increase of 100,000 acres of wetlands habitat per year. 12

[6] Passenger Facility Charge Application, February 6, 1998, Appendix C

APPEARANCE OF FAIRNESS/CONFLICT OF INTEREST ISSUES

Since we understand that the Corps is acting, in part, in a quasi-judicial capacity when reviewing this application we feel it is important that an independent and objective viewpoint be maintained. We have observed the Port habitually working behind the scenes to influence decision makers concerning the regional air transportation planning issue. We believe it is important that the Corps understands the relationship between the Port of Seattle and certain proponents of Sea-Tac expansion projects, when evaluating this permit application.

13 For example, the Corps will probably note that the Seattle Chamber of Commerce testified at the public hearing in support of the permit. While this did not seem unusual we were surprised to learn that the Seattle Chamber has contracted with the Port of Seattle to lobby the 3rd runway project before elected and nonelected officials. Enclosed please see the $25,000 contract between the Port and Seattle Chamber. We were also surprised to find the enclosed lobbying contract between the Port of Seattle and Richard Ford, formerly an Executive Director for the Port of Seattle. Mr. Ford is currently employed with the law firm of Preston Gates and Ellis, which acts as the Port of Seattle's bond counsel in matters of issuance of municipal debt offerings, for capital projects, including airport related facilities. These are only a few examples of relationships that have caused us to be concerned with the fairness and objectively of the regional air transportation planning process.

CONCLUSION

An analysis of wetlands impacts associated with this permit that would satisfy the requirements of the Clean Water Act, as well as other Federal and State laws will lead the Army Corps of Engineers to conclude:

> *The project violates the FAA Draft Advisory Circular that recommends new facilities not be located in the vicinity of existing wetlands or other wildlife attractants.*
>
> *Sufficient land is available such that wetlands mitigation could be located in the drainage of impact as required by local ordinances and recommended by other agencies charged with environmental protection.*
>
> *Wetlands mitigation could be designed that does not create an undue wildlife hazard to airport operations. The lack of a prior history of wildlife hazard problems at Sea-Tac would indicate that existing wildlife habitats do not attract species hazardous to flight operations.*

Because of cumulative effects of past projects, a high proportion of wetlands habitat that existed in the two watersheds 20 to 50 years ago have been filled by Port and by commercial and residential construction. Further loss of wetlands in the Miller and Des Moines Creek drainages will add to degradation of water quality and changes to stormwater runoff regimes. These conditions would contribute to existing downstream erosion/mass wasting problems in both drainages.

The permit application has failed to consider feasible and reasonable alternatives to the proposed filling of wetlands

Therefore the permit application should be rejected by the Army Corps of Engineers.

If you have any questions please contact our organization. We would like to remain actively involved in the discussions concerning this proposed permit and would be pleased to meet with Corps officials to discuss any issues. Again thank you for the opportunity to respond to the Corps request to provide comments concerning the proposed Section 404 permit

Sincerely,

Regional Commission on Airport Affairs

By: _____

Allan M. Furney
President

Enclosures:

cc:

U.S. Environmental Protection Agency, Region X
U.S. Congressman Adam Smith
Office of the Inspector General - Environmental Protection Agency
Office of the Inspector General - Army Corps of Engineers
Washington State Department of Ecology
Airport Communities Coalition
Miller Creek Management Coalition
Normandy Park Community Club
Sierra Club
Trout Unlimited
Puget Sound Water Quality Authority

Item 4

RECEIVED BY
AVIATION MANAGING DIRECTOR
JAN 5 1996
1 Aiden
2 Gary
3 Mike Feldman
4

US Department of Transportation
Federal Aviation Administration

DEC 29

Ms. Gina Marie Lindsey
Managing Director, Aviation
Port of Seattle
P. O. Box 68727
Seattle, WA 98168

Dear Ms. Lindsey:

In accordance with section 158.29 of the Federal Aviation Regulations (Title 14, Code of Federal Regulations, Part 158), the Federal Aviation Administration (FAA) has approved your application, in part, to impose a passenger facility charge (PFC) at Seattle-Tacoma International Airport (SEA) and to use PFC revenue, either now or in the future, at SEA. The authority to impose a PFC is contingent on your continued compliance with the terms of the regulation and any conditions included in this letter.

Enclosed is a Record of Decision which provides specific information about this approval including the approved PFC level, total amount of approved net PFC revenue to be collected, earliest charge effective date, and duration of authority to impose the PFC. This Record also includes a list of approved and disapproved projects as well as the FAA's reasons for each decision. The FAA's findings and determinations required by statute and Part 158 as well as the FAA's disposition of comments submitted in response to the Federal Register notice are also included in the Record.

The FAA has approved PFC collection and use at SEA for five projects and collection only for three additional projects. The total approved net PFC revenue to be collected for these projects is $147,026,000. The FAA is also disapproving two projects for the reasons indicated in the Record.

The approval of any project which is proposed to include Airport Improvement Program (AIP) discretionary funds is not deemed a Federal commitment of AIP discretionary funds.

Approval of your PFC application does not include authority to require collection by air carriers of PFC's on frequent flyer award certificates or any other bonus program as discussed in the Record.

We wish to point out a potential conflict between the definition of airport revenue which may be proposed in general airport revenue bonds and conditions contained in your PFC approval.

Specifically, bond resolutions may define pledged airport revenues in broad terms which may be interpreted to include PFC revenues. New bond issues should clarify that use of PFC revenues is limited to the allowable costs of approved PFC projects. The terms of PFC approval do not permit the use of PFC revenues to pay debt service on any new or outstanding bonds issued to finance other than approved PFC projects.

Reporting, recordkeeping, and auditing requirements are described in Part 158, Subpart D. Please issue your required quarterly reports in accordance with the enclosed guidance. We request that you advise our Seattle Airports District Office when you notify the air carriers and foreign air carriers to begin collecting PFC's. Also, you are responsible for coordinating any construction with the appropriate Federal offices as you would with any nonfederally funded construction.

You are required to implement your projects approved for concurrent impose and use authority within 2 years of this date. Section 158.33(a)(1) requires the public agency to begin implementation of a project no later than 2 years after receiving approval to use PFC revenue on that project.

In addition, you are required to submit a use application, or a request for extension if the implementation schedule has been delayed, no later than 3 years after the charge effective date in accordance with section 158.35 for those projects which are only approved for collection.

We have enclosed the list of advisory circulars with which you must comply in accordance with your certification of assurance number 9, standards and specifications.

Sincerely,

for Cynthia Rich
Associate Administrator
for Airports

Enclosures

RECORD OF DECISION

PORT OF SEATTLE
SEATTLE, WASHINGTON

Application Number 95-03-C-00-SEA to impose a passenger facility charge (PFC) at Seattle-Tacoma International Airport (SEA) and use PFC revenue, either now or in the future, at SEA.

Approval Criteria

In accordance with §158.29 of the Federal Aviation Regulations (Title 14, Code of Federal Regulations, Part 158), this Record of Decision includes decisions to approve or disapprove, in whole or in part, imposition of a PFC for 10 projects and use of PFC revenue for 8 of those projects at SEA along with the following determinations.

(1) The amount and duration of the PFC will not result in revenue that exceeds amounts necessary to finance the projects.

(2) Each project will achieve the objectives set forth in §158.15(a).

(3) Each project meets the criteria set forth in §158.15(b).

(4) The collection process, including any request by the Port of Seattle (Port), not to require a class or classes of carriers to collect PFC's, is reasonable, not arbitrary, nondiscriminatory, and otherwise in compliance with the law.

(5) The Port has not been found to be in violation of §§9304(e) or 9307 of the Airport Noise and Capacity Act of 1990 (since codified at 49 U.S.C. 47524(e) and 47526).

(6) A finding that, for those projects approved for only the authority to impose the PFC, there are alternative uses of the PFC revenue to ensure that such revenue will be used on approved projects.

(7) All project-related requirements pertaining to the airport layout plan (ALP), airspace studies, and environmental analysis and approval, for those projects approved for concurrent authority to impose and use the PFC, have been met.

Procedural History

The Port met with carriers operating at SEA on July 19, 1995, to discuss the proposed projects and other aspects of the draft PFC application. On August 25, 1995, the Federal Aviation Administration (FAA) received a PFC application from the Port to impose a $3 PFC at SEA and to collect a total of $161,881,000 over a period of approximately 4 years. On September 12, 1995,

the FAA determined this application to be substantially complete within the requirements of §158.25. A notice was placed in the Federal Register on September 19, 1995, inviting public comment on this application. The period for public comment closed on October 19, 1995.

Amount of PFC

Level of PFC:	$3.00
Total approved net PFC revenue:	$147,026,000
Earliest charge effective date:	January 1, 1996

January 1, 1996, is the "earliest" charge effective date and is based upon the estimated charge expiration date for the previously approved collections in application 93-02-C-00-SEA as well as agreements received from the carriers serving SEA to waive the 60-day notification requirement. If the charge expiration date for the previous application changes, the charge effective date for this application will also change, so that the Port can continue to collect the authorized amount of PFC revenue without a cessation in collections.

Section 204 of the Federal Aviation Administration Authorization Act of 1994, Pub. L. 103-305 (August 23, 1994) (49 U.S.C. 40117(e)(2)(D)), precludes collection of a PFC from a passenger enplaning at an airport if the passenger did not pay for the air transportation which resulted in such enplanement, including any case in which the passenger obtained the ticket for the air transportation with a frequent flier award coupon without monetary payment.

The FAA interprets this provision to prohibit the collection of PFC's from passengers considered to be non revenue passengers under existing Department of Transportation Regulations and from passengers who obtained their ticket with an award coupon issued under a frequent flier or similar bonus award program ("frequent flier award coupon"). For purposes of this provision, the FAA considers a "frequent flier award coupon" to be a zero-fare award of air transportation that an air carrier or foreign air carrier provides to a passenger in exchange for accumulated travel mileage or trip credits in a customer loyalty program. The definition of "frequent flier award" does not extend to redemption of accumulated credits for awards of additional or upgraded service on trips for which the passenger has paid a published fare. The FAA does not construe §204 as applying to "two-for-the-price-of-one" and similar marketing programs.

Allowable costs of proposed projects are those incurred on or after November 5, 1990. For project formulation costs and construction projects, the notice to proceed or commencement of work must occur on or after November 5, 1990, to be allowable for PFC purposes. For land acquisition, the contract or agreement

must be signed after November 5, 1990, to be allowable for PFC purposes. The approvals below are subject to this limitation as appropriate.

For the purposes of any future amendments under §158.37 which may increase the total approved net PFC revenue, the following amounts, "Approved for Use," are specified. The applicability of §158.37(b) is determined by comparing the sum total actual costs of all projects approved for use of PFC revenue within a given application and the amount "Approved for Use" associated with that application. The amount "Approved for Collection" shown for each application is the total collection authorized for all projects within a given application, including those for which only collection is authorized.

Application Number	Approved for Collection	Approved for Use
93-01-C-00-SEA	$ 28,847,488	$ 28,847,488
93-02-C-00-SEA	$ 47,500,500	$ 47,500,500
95-03-C-00-SEA	$147,026,000	$ 72,118,000
Totals	**$223,373,988**	**$148,465,988**

Duration of Authority to Impose a PFC

The Port is authorized to impose a PFC at SEA until the date on which the total net PFC revenue collected plus interest thereon equals the allowable cost of the approved projects. For this approval, that amount is $147,026,000. Based on information submitted by the Port, the FAA estimates the charge expiration date to be July 1, 2000.

Projects Approved for Concurrent Authority to Impose and Use a PFC at SEA

Description	Approved Amount
Terminal Apron Improvements	$15,000,000

This project consists of replacing failed and failing terminal apron pavements as part of a phased 7-year program which began in 1994. The phases included in this project involve replacing the pavements west of Concourse B and south of the South Satellite. Most of the affected pavements are at least 20 years old and are at the end of their expected useful life. Some areas are beginning to release debris, causing safety hazards and requiring constant maintenance.

Determination: Approved. This project is eligible under Airport Improvement Program (AIP) criteria, paragraph 524 of FAA Order 5100.38A, AIP Handbook. This project will preserve safety and capacity at SEA. The approved amount represents the total cost of the project. The applicable environmental, airspace, and ALP requirements for this project have been met.

Runway 16R Rehabilitation $750,000

This project includes the replacement of concrete slabs in runway 16R. Runway 16R is 23 years old and has reached the end of its useful life. The panels being replaced are shattered. Each panel has three or more full depth cracks.

Determination: Approved. This project is eligible under AIP criteria, paragraph 521(a) of FAA Order 5100.38A, AIP Handbook. This project will preserve safety and capacity at SEA. The approved amount represents a portion of the total cost of the project, $3,000,000. Sources of financing for this project include PFC revenue and a proposed AIP entitlement grant. The FAA's approval of this project is not deemed a Federal commitment of AIP funding and is partially based on the public agency's assurance that the project can be funded without AIP funds or can be phased over a longer period of time if proposed AIP funds are not available or are less than anticipated. The applicable environmental, airspace, and ALP requirements for this project have been met.

Noise Programs $34,400,000

This project is composed of two elements of the Port's comprehensive noise reduction programs. The first element involves noise insulation of single family residences, relocation assistance, and transaction assistance for those residences within the 65 Ldn noise contour. The second element involves the insulation of other structures located in the noise impacted zone including churches, institutional and convalescent homes, multi-family dwellings, schools, and other public buildings. Also included in this element will be flight track monitoring, Part 150 update, land use planning, and relocation assistance.

Determination: Approved. This project is eligible under AIP criteria, paragraphs 710(b), 712, 713, and 715(d) of FAA Order 5100.38A, AIP Handbook. This project will mitigate noise impacts resulting from aircraft operations at SEA. The approved amount represents a portion of the total cost of the project, $108,000,000. Sources of financing for this project include PFC revenue, existing AIP grant(s), AIP entitlement and discretionary grants, and local "Airport Development Fund" moneys. The FAA's approval of this project is not deemed a Federal commitment of AIP funding and is partially based on the public agency's assurance that the project can be funded without AIP funds or can

be phased over a longer period of time if proposed AIP funds are not available or are less than anticipated. The applicable environmental, airspace, and ALP requirements for this project have been met.

Emergency Power Generators $2,700,000

This project involves the refurbishment of the existing emergency generator and the addition of two new generator systems to supply backup power to the airfield lighting systems and facilities at SEA. The work includes structural and architectural modifications to the generator room to permit the new installation and to fix code deficient areas. When completed, the three 600 KW generators will be equipped with all new gear and controls to ensure reliability.

Determination: Approved. This project is eligible under AIP criteria, paragraph 531 of FAA Order 5100.38A, AIP Handbook. This project will preserve and enhance safety and capacity at SEA. The approved amount represents the total cost of the project. The applicable environmental, airspace, and ALP requirements for this project have been met.

Electrical System Power Upgrade $17,699,000

This project involves the replacement of electrical feeders and the refurbishment of the electrical distribution system serving a number of airport facilities. The scope of work includes the replacement of electrical feeders 101, 102, 103, and the main terminal power center. Feeders 101 and 102 supply power to the north satellite, the maintenance shop and pump station, United States Post Office airport facility, and air cargo facilities. Feeder 103 serves the Satellite Transit System. The main terminal power center serves the airfield and main terminal complex. The distribution systems were installed in the late 1960's and early 1970's. The insulation used on the conductors was estimated to have a useful life of over 30 years. However, recent information indicates that the practical life of this type of conductor is only 20 years.

Determination: Approved. This project is generally eligible under AIP criteria, paragraph 531(a) of FAA Order 5100.38A, AIP Handbook. However, that portion of the feeders and electrical distribution system needed to supply power to ineligible areas, such as concessions, airport maintenance shops, Port Office, air cargo facilities, and ineligible airline areas is not eligible for PFC funding. The Port must consult with the Seattle Airports District Office after design is completed and before construction is begun to ensure a mutual understanding of eligible and ineligible areas. This project will preserve capacity and safety at SEA. The approved amount represents a portion of the total cost of the project, $23,199,000. Sources of financing for this

project include PFC revenue and local airport development funds. The applicable environmental, airspace, and ALP requirements for this project have been met.

Projects Approved for Authority to Impose the PFC at SEA

Description	Approved Amount
Aircraft Rescue and Firefighting (ARFF) Training Facility	$1,450,000

This project consists of the construction of a regional ARFF training facility. For environmental reasons, the area surrounding SEA has restrictions on open burning. In addition, the FAA requires ARFF personnel to take part in live fire drills of a considerably larger scale than are available using the existing ARFF training facility located on SEA. Therefore, the Port, in conjunction with other local and state agencies, has selected a site at the Washington State Fire Academy east of North Bend, Washington for its expanded ARFF training facility.

Determination: Approved for collection of PFC revenue. SEA has been identified by the FAA's Northwest Mountain Region Airports Division as the site of a regional ARFF training facility. Therefore, this project meets the nominal requirements for AIP eligibility under paragraph 560 of FAA Order 5100.38A, AIP Handbook, and, therefore, PFC eligibility. However, final determination of project eligibility must be deferred until the documentation of justification is submitted for the FAA's review with the PFC "use" application. In order for the FAA to make a final determination of eligibility at the time the "use" application is submitted, the Port must adequately address its ownership and control of the proposed facility. The project may preserve and enhance safety at SEA.

The approved amount represents a portion of the total project cost, $7,429,831. Sources of funding for this project include PFC revenue, proposed AIP discretionary grant(s), and contributions from King and Snohomish Counties as well as the Boeing Aircraft Company. The FAA's approval of this project is not deemed a Federal commitment of AIP funding and is partially based on the public agency's assurance that the project can be funded without AIP funds if proposed AIP funds are not available or are less than anticipated. The FAA expects that the public agency will resolve any funding questions prior to submission of a use application for this project.

The FAA notes that this project was submitted for concurrent authority to impose and use the PFC based in part on a determination that all required environmental reviews had been completed. However, during the design process it was determined that a waste water treatment facility would require additional land outside of the original area permitted for this facility.

This additional land will require additional environmental review which is expected to be completed in 1996. Therefore, the FAA limited its consideration of this project to authority to impose the PFC.

Safety Area Improvements - 16L/16R $2,751,000

This project consists of the second phase of runway 16L expansion which is intended to bring the safety areas into compliance with FAA standards. This phase includes relocation of South 154th and 156th Streets, expansion of the runway 16L safety area from 500 feet by 700 feet to 500 feet by 1,000 feet, expansion of the north safety area of runway 16R/34L to 500 feet by 1,000 feet, and relocation of FAA facilities and equipment.

Determination: Approved for collection of PFC revenue. This project meets the nominal requirements for AIP eligibility under paragraph 521 of FAA Order 5100.38A, AIP Handbook, and, therefore, PFC eligibility. However, final determination of project eligibility must be deferred until the documentation of justification is submitted for the FAA's review with the PFC "use" application. The project may enhance safety at SEA. The approved amount represents a portion of the total project cost, $11,000,000. Sources of funding for this project include PFC revenue, existing AIP grant(s), and proposed AIP entitlement and discretionary grant(s). The FAA's approval of this project is not deemed a Federal commitment of AIP funding and is partially based on the public agency's assurance that the project can be funded without AIP funds if proposed AIP funds are not available or are less than anticipated. The FAA expects that the public agency will resolve any funding questions prior to submission of a use application for this project.

Passenger Conveyance System $72,157,500

This project involves the reconstruction or replacement of the Satellite Transit System (STS). The existing STS has been in operation for nearly 22 years and is beginning to experience problems due to obsolescence, fatigue of the mechanical systems and structure, and lack of replacement parts.

Determination: Approved for collection of PFC revenue. This project meets the nominal requirements for AIP eligibility under paragraph 551(d)(1) of FAA Order 5100.38A, AIP Handbook, and, therefore, PFC eligibility. However, final determination of project eligibility must be deferred until the documentation of justification is submitted for the FAA's review with the PFC "use" application. In aid of project justification, the Port must meet the following conditions prior to submission of the "use" application for this project:

1. The planning study discussed in the Port's response to the airline certifications of disagreement must be completed and must include a discussion of alternatives studied and a recommended course of action.

2. Alternatives, including costs, must be discussed with the airlines.

The project may preserve capacity at SEA. The approved amount represents a portion of the total project cost, $80,000,000. Sources of funding for this project include PFC revenue and local funds. The FAA expects that the Port will request that the approved PFC collection be decreased, prior to submission of a use application or at the time the use application is submitted, if the preferred alternative is less costly. Furthermore, the FAA expects that, to the extent possible, the Port will take any such actions to decrease collections in a sufficiently timely manner so as to minimize the possibility that the Port will have excess PFC collections.

Disapproved Projects

Description	Disapproved Amount
Skybridge Elevators	$ 3,674,000
Land Acquisition for South Aviation Support Area Development	$11,300,000

Determination: Disapproved. The Port's financial plans and other project documentation for both of these projects state that the projects were financed with the proceeds of 1992 revenue bonds. The Port then retired the bonds using Airport Development Funds (ADF). The Port proposes that the PFC revenues be used to reimburse the ADF for the cost of the projects so that the ADF can be used to finance other "revenue generating" projects in the airport capital improvement plan. The FAA has determined that the source of the ADF is the rates and charges assessed to airlines. Because of this, the Port cannot comply with Assurance 8(b) of the PFC assurances, which prohibits a public agency from including in its rate base any portion of the capital cost paid for with PFC revenue, for these projects. Furthermore, based on the projects proposed to be funded by the Port from the "reimbursed" ADF, the PFC revenue would in effect be used to fund ineligible projects. Therefore, the FAA has determined that the financing plans for these projects does not meet the requirements of Part 158 and is disapproving both projects. The FAA would be willing to reconsider either of these projects if the Port submits financing plans which comply with the requirements of Part 158.

Environmental Requirements

The projects being approved for concurrent authority to impose and use the PFC in this Record were examined under guidelines contained in FAA Order 5050.4A, Airport Environmental Handbook, paragraph 23 (1985), and have been determined to be categorically excluded from the requirement for formal environmental assessment. There appear to be no extraordinary circumstances requiring individual review.

Alternative Use for PFC Revenue

The FAA finds the following as the Port's alternative use: passenger terminal expansion phase 1. The cost of this project is $84,345,000.

The FAA makes this finding on an alternative project to ensure that, in the event one or more of the impose-only primary projects are not implemented in a timely manner, the Port has sufficient eligible uses for the PFC impose-only revenues already collected. Based on information submitted by the Port, the cost of the alternative listed exceeds the cost of the approved impose-only primary projects; therefore, the alternate project requirement has been satisfied.

The FAA cautions the Port that, if the Port does not submit an application to use the PFC revenue on the impose-only primary projects within 3 years of the charge effective date and if the Port does not begin implementation of the impose-only primary projects within 5 years of the charge effective date, the Port's authority to impose a PFC for the impose-only projects will automatically expire in accordance with §158.33. This does not constitute approval for use of PFC revenue.

Collection Process

a. Exclusion of a class or classes of carriers. The Port has not requested that a class of carriers not be required to collect PFC's.

Determination: No action required by the FAA.

b. Compliance with the regulation.
(1) The requested charge effective date, January 1, 1996, does not meet the requirements of §158.43(b)(3). However, based on the carriers' agreements to waive the 60-day notification requirement, the FAA will not object to a charge effective date of January 1, 1996. The Port is cautioned that to retain this date, it must first notify the carriers of approval to impose the PFC.

(2) The Port requests a collection period of 4 years in its application. Based on information submitted by the Port, the FAA estimates the duration of collection to be approximately 3 years, 6 months.

(3) Except as specifically mentioned above, all other aspects of the proposed collection process have been determined to be reasonable, not arbitrary, nondiscriminatory, and otherwise in compliance with the regulation.

Compliance with the Airport Noise and Capacity Act of 1990 (ANCA)

The FAA is not aware of any proposal at SEA which would be found to be in violation of the ANCA. The FAA herein provides notice to the Port that a restriction on the operation of aircraft at SEA must comply with all applicable provisions of the ANCA and that failure to comply with the ANCA and Part 161 makes the Port subject to provisions of Subpart F of that Part. Subpart F, "Failure to Comply With This Part," describes the procedures to terminate eligibility for AIP funds and authority to collect PFC revenues.

Compliance with Subsection 47107(b) Governing the Use of Airport Revenue

As of the date of this Record of Decision, the Port has not been found to be in violation of 49 U.S.C. 47107(b) or in violation of grant assurances made under 49 U.S.C. 47107(b).

Federal Register Notice Comments

The FAA received comments from the Air Transport Association of America (ATA) in response to the Federal Register notice inviting public comments on the Port's PFC application. The ATA transmitted copies of the certifications of agreement/disagreement submitted by Alaska Airlines, America West Airlines, American Airlines, Horizon Air, Northwest Airlines, Southwest Airlines, Trans World Airlines, and United Airlines. All comments were considered in the FAA's deliberations on each project.

The carriers agreed with a majority of the proposed projects; however, several carriers stated concerns about the financing of several projects such as the ARFF training facility, skybridge elevators, and land acquisition projects.

The carriers concerns about the ARFF facility centered on the proposal for the Port to expend significant PFC revenues and AIP discretionary funds on construction of a facility which will be used by other agencies. Several carriers stated that the PFC revenue and AIP funds could be better used on other on-airport projects at SEA while other funding sources, such as the ADF could be used to finance the ARFF facility. The FAA has

de rmined that regional ARFF training facilities are AIP-e. ible as well as being cost effective. The purpose of regional facilities is to allow multiple agencies to have convenient access to required ARFF training without requiring that each agency bear the total cost for the facility. The Port is financing the majority of the construction costs because the ARFF training requirements for an airport the size of SEA are considerably more extensive than those for the other agencies participating in this facility. The FAA, in its review of the project, determined that all of the environmental requirements had not yet been met and therefore limited its approval to authority to impose the PFC. This will give the Port and the carriers another opportunity to reexamine the financing for this project prior to submission of an application for authority to use PFC revenue on the project.

The carriers concerns about the skybridge elevators and land acquisition projects centered on the Port's plan to reimburse the CDF (and use those funds on other, possibly non eligible projects) rather than reducing the bond debt. The FAA had similar concerns. After further review of the Port's proposal, the FAA determined that the financial plans for these projects did not comply with the requirements of Part 158 and disapproved the projects.

All of the carriers disagreed with the safety area improvements pr ct, many stating that they are unconvinced that there are ot more cost effective and practical solutions to achieving the ame result. Many carriers cite an ATA study on this project hich states that the FAA's "requirements to absolutely comply" ith Part 139.309 with regard to runway safety areas goes "beyond he intent of the regulation." The ATA suggests that a soft round arresting system could be a viable option rather than a ull length safety area.

he Port, in responding to the carriers comments stated that it d explored alternative approaches for improving the safety reas which had resulted in a revised project scope and decreased sts. The Port further stated that the FAA had agreed to allow e Port more time to comply with Part 139.309. The Port stated at it expects maximum FAA funding for the safety area provements.

rt 139.309 requires that runway safety areas meet FAA standards <u>to the extent practicable</u>. The FAA's policy is to allow the rport sponsor/public agency to determine what is practicable. this case, the Port has determined that a full length runway fety area is warranted in order to preserve the full runway vement length. The main reason is that, although 90 percent of e carriers operating at SEA could continue full operations with reduced runway length, approximately 10 percent of the carriers ing at SEA would be subject to payload and/or range abilities if the runway length were reduced. The FAA is proving this project for PFC collection; however, as the FAA

states in its determination for the project, this PFC approval should not be construed as a Federal commitment of AIP funding for the project.

Most of the carriers also disagreed or conditionally agreed with the passenger conveyance system stating that they had not seen any studies showing the justification for the project as proposed. The Port, in its response to the carriers comments states that they have retained a consultant to evaluate the project alternatives. The Port states further that they are committed to achieving a consensus with the airlines regarding the proposed implementation of the project prior to submission of a use application. The FAA has reinforced the Port's statements, in its approval of the project, by requiring that the Port meet several conditions including analysis of alternatives and consultation with the carriers prior to the submission of a use application for the project.

Legal Authority

This decision is made under the authority of 49 U.S.C. 46110 and 40117, as amended by Public Law No. 103-305 (August 23, 1994). This decision constitutes a final order to approve, in whole or in part, the Port's application to impose and use a PFC at SEA for five projects and to impose (but not to use) a PFC for three projects at SEA. Any party to this proceeding having a substantial interest may appeal this decision to the courts of appeals for the United States or the United States Court of Appeals for the District of Columbia upon petition, filed within 60 days after issuance of this decision.

Concur /for/ Associate Administrator for Airports — 12/29/95 Date

Nonconcur _____ Associate Administrator for Airports — _____ Date

MEMORANDUM

Date: July 10, 1996
To: Jack Block, President
Port of Seattle
Through: Port Commissioners
From: Frank Hansen, Councilmember
City of SeaTac
Subject: Some new and interesting thoughts on the placement of the third runway at SeaTac

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Attached are two recent articles from the authoritative journal "Aviation Week". Although somewhat technical in nature, it is obvious that the rapidly emerging electronic technology of Global Positioning Satellites (GPS) and Automatic Dependant Surveillance - Broadcast (ADS-B) will permit parallel instrument approaches with greatly reduced horizontal separation, perhaps as little as 750 feet. This is not "pie in sky" or someone's pipe dream, it is already developed proven technology. Nothing new needs to be invented, the systems just needs to be brought together for testing, refinement and FAA approval. The test work is being conducted by NASA, Langley, in coordination with the airlines, FAA, military and the Aircraft Owners and Pilots Association. Captain William Cotton, Manager of Air Traffic and Flight System, for United Airlines is recognized nationally for his expertise and advocacy in this field. Mr. Richard Taylor retired Vice President of Boeing lives here and would be an excellent resource due to his expertise and long involvement in this field.

Now you might ask, why now after several years of Master planning and millions spent on hearings studies, etc., should we look at a new concept?

When we first started the Flight plan process several years ago, the FAA required 5200' spacing and I think we all remember the howling from the citizens when a runway was proposed on approximately 1st Ave. S. Next the FAA came up with a figure of 4300' which didn't help much. Then we got down to the 2500' for staggered approaches and that has been the basis of all our subsequent planning. We planned using technology that was several years old and rapidly becoming obsolete. The advancement of electronic flight management and navigation has been so rapid that seven years ago seems like the dark ages. It 's somewhat comparable to the home computer of ten years ago versus the PC of today. There is every reason to believe this rapid research and development will continue at an accumulated pace. Even if nothing new was created, it is abundantly clear that the technology for parallel approaches is here now.

So what does all this mean in regard to SeaTac and the third runway. With the rapid and projected growth at SeaTac. there is no question in any reasonable person's mind that another landing runway is needed to provide parallel approaches during peak periods. I believe using this new technology we can accomplish this with a minimum of effect on the surrounding communities and hundreds of millions dollars less cost than the current proposal.

Therefore, I am proposing that the new runway be built on the existing Port property 1800 feet west of the runway 16L-34R and 1000 west of runway 16R-34L. (See attached maps and layout). This would provide 1800 feet separation for parallel approaches which is far greater than NASA or Captain Cotton feel is necessary. The present runway 16R-34L could still be used for visual landings but would be the primary take off runway. Much of the terrain at this runway location is already at grade (on the southend) or is substantially higher which should preclude the need for appreciable fill haul. The area between the runway and 12th Ave. could and should be sculptured for stream protection and park use as proposed by the City of SeaTac.

Regarding noise mitigation, this location being several hundred feet east of the 12th Ave. orientation would move the entire projected noise contours east and would substantially reduce the cost and scope of the noise mitigation and buy-out programs.

Another plus for this site would be the availability of level land to build out to the full 8500 ' the Port and FAA have been pushing for. It would not require the relocation of SR509 and at most a small re-routing of S. 156th street. The longer runway would require less reverse thrust, and less noise on landing.

In making this proposal, I wish to make it plain that all of the mitigation proposals in the City of SeaTac position paper of March 5, 1992 is still valid and need to be negotiated.

It is interesting to note that our two largest operators at SeaTac, Alaska and United Airlines are leaders in the industry in new airborne GPS technology. United with the FANS program in the Pacific and Alaska recently completed flights to Alaska entirely with GPS. I am sure these forward thinking companies would welcome the opportunity to talk about this plan.

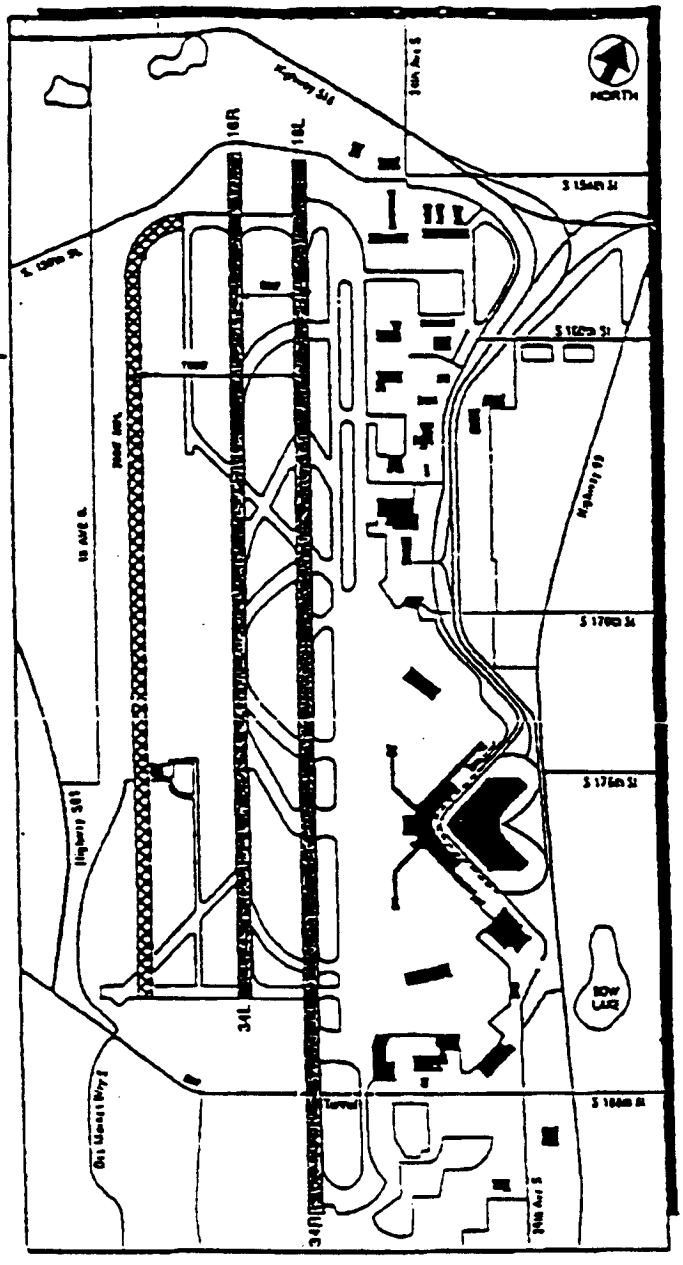
I wish to recommend that the POS convene a conference, here in Seattle, with representatives from the FAA , the Airlines, NASA, Boeing and AOPA to evaluate this proposal. Since this issue is so important to so many, I am sure there would be of broad interest. One person even suggested that the FAA might enhance their funding as a pilot project. In closing, I urge you to look forward not backward. Bill Gates is not designing software for a 186 he's designing and building for the future. The marriage of this new technology with the construction of the new runway would assure SeaTac's future.

Attachments

AR 036259

PROJECTED THIRD RUNWAY WITH 1800 FEET HORIZONTAL SEPARATION USING GPS-ADS-B

FOR ADDITIONAL INFORMATION CONTACT FRANK HANSEN (206) 878-3200



Seattle - Tacoma International Airport

General Airport Layout

EXHIBIT I-2

AR 036260

AIR TRANSPORT

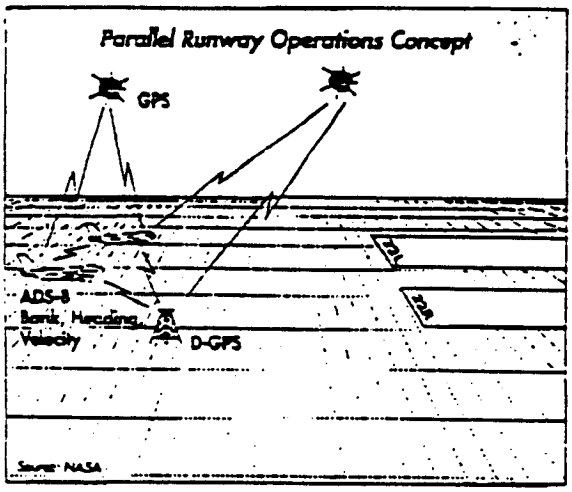
Langley Developing AILS Multiple Approach Concept

AVIATION WEEK 7/1/96

EDWARD H. PHILLIPS/HAMPTON, VA.

NASA is developing concepts that would permit independent instrument approaches to closely-spaced runways in adverse weather without reducing capacity below that obtained under visual conditions.

The Airborne Information for Lateral Spacing (AILS) program is part of the Reduced Spacing Operations element of NASA's Terminal Area Productivity Program, which is aimed at increasing capacity at existing airports.



AILS has two major components: provide accurate navigation to aircraft flying parallel approaches, and protecting each aircraft if one deviates from its assigned approach path. Langley Research Center is chiefly responsible for development of an initial approach concept based on only two parallel runways, although the procedure could be applied to three or four parallel runways, according to Charles Scanlon, a senior research scientist at Langley. Ames Research Center also is participating in the AILS research, but is centering its efforts on developing TCAS-type guidance for use during the initial approach phase.

Brad Perry, Reduced Spacing Operations manager at Langley's Crew System and Operations Branch (CSOB), said differential GPS (D-GPS) would be used for precise navigation to the runways and automatic dependent surveillance-broadcast (ADS-B) would allow each aircraft to broadcast its position as well as heading, bank angle and airspeed throughout the approach procedure. Each aircraft also would receive that data and maintain an accurate fix on the other aircraft. Transmitted data would provide the flight crew of each aircraft with an indication of whether traffic is deviating from course.

A key consideration of the AILS concept is keeping aircraft in their assigned airspace. To accomplish that, Langley researchers are studying whether a conventional ILS system localizer can be replaced with guidance from D-GPS, according to Marvin Waller, aerospace scientist at the CSOB. To explore that possibility, Langley is assessing the use of a two-dot localizer capture region that would provide 2,000 ft. on either side of the extended runway centerline. Approach paths would be separated by 1,000 ft. vertically.

About 12 naut. mi. from the runway these paths would gradually narrow until they provide 500 ft. on either side of the extended centerline at 10 naut. mi. At that point in the approach, the aircraft at the higher altitude would begin its descent and vertical separation is terminated. The 500-ft. width of the approach path is maintained to the middle marker, where D-GPS guidance would be abandoned and the standard localizer recaptured and flown to landing.

NASA is confident that AILS can be applied safely to runways 1,500 ft. apart

During the D-GPS guidance phase, if an aircraft deviates one dot or more from its approach path, an alert is given to the pilots to return to course. The alert would be displayed in amber alphanumeric and symbolic formats on the aircraft primary flight displays (PFD) and navigation displays. If the deviation exceeds two dots, a break off maneuver is commanded that directs the aircraft away from parallel traffic, Scanlon said. The maneuver would require a 45-deg. climbing turn away from traffic.

An on-board algorithm in each aircraft would use heading, angle of bank and airspeed data transmitted on the ADS-B link to detect any threats and give pilots an intrusion alert on the PFD. As the danger of a collision increases, the algorithms provide a red alert to the pilots of the on-course aircraft. Alert configurations under study at Langley incorporate special displays that portray the threat aircraft's projected flight path, allowing pilots to assess the situation. If the red alert persists, a computer-controlled message "Turn, climb. Turn, climb" would be presented and the threatened aircraft would execute an immediate, turning climb 45 deg. away from the intruding traffic.

Researchers recently completed a series of simulator-based tests using 16 pilots from major U.S. airlines and freight carriers. The runways were spaced 3,400 ft. and 2,500 ft. apart. Each pilot flew about 50 parallel approaches, with about one-third involving near-miss or collision threats, Scanlon said.

Reaction times for the pilots were carefully recorded, and preliminary results indicate that all were under the 2-sec. limit established by the AILS design team. The 500-ft. minimal lateral separation also was not violated. The closest distance detected between aircraft was 1,183 ft.

As a result of the test program, this month NASA is conducting additional simulator tests at runway spacings as close as 1,200 ft. Although that distance is considered to be the lowest limit feasible for proposed AILS technologies, Langley researchers are confident that the concept can be applied safely to runways 1,500 ft. apart, Waller said. ●

AR 036261

Free Flight Could Stall Without Key Data Link

BRUCE D. NORDWALL/WASHINGTON

Air traffic controllers will need the information from ADS-B to ensure flight safety for free flight

Several enabling technologies are needed before free flight can be implemented in a workable air traffic management system. Aviation Week & Space Technology examines how the U.S. and Europe are coming to grips with some of the technical challenges. European research organizations have been working on new systems for years. See p. 30.

The FAA and airlines in the U.S. are strongly behind the concept of "free flight" but the idea will go nowhere unless certain key technologies are fielded including a new type of automatic data link network.

The conclusion of a recent RTCA symposium is that Automatic Dependent Surveillance Broadcast (ADS-B) is closely associated to the development of free flight. It would also pay dividends in flight safety and ground control of aircraft.

But funding is not entirely certain for this key enabling technology and the lack of financial support could stall progress. J. Roger Fleming, senior vice president for the Air Transport Assn., said, "The FAA's funding for 1998 looks bleak and the users are not going to be happy." Most parts of the FAA budget are tight, "but there is currently zero money for data link. And if there is no data link, there will be no free flight," he said.

The air traffic control system will need the additional information provided by ADS-B to ensure safety as separation is decreased to accommodate increasing numbers of aircraft. Airports will gain the benefits of a surveillance system to monitor aircraft on the ground; controllers will also be able to send uplink surveillance to assist without radar coverage. General aviation may benefit from a cheap alternative to traffic alert and collision avoidance systems (TCAS).

According to Ricky Stone, TCAS program manager for United Airlines, the term ADS-B is still descriptive: the system is Automatic — with no pilot intervention required. Dependent — on input from another navigation source, most likely GPS, such a Surveillance system — to monitor aircraft positions; and Broadcasts positions — with data link messages not just addressed to specific receivers, but available for all who receive them.

With ADS-B transmitting an aircraft's absolute GPS position as often as needed, controllers will have a much more accurate location than from the range and bearing from a radar return. The rapid update rate can be adjusted to every ½ sec. to meet controllers' needs. Current position updates are 12 sec. en route using long-range radars and 4.8 sec. for terminal radars, according to Ron Morgan, acting deputy director of FAA's air traffic services.

ADS-B is becoming a hot topic in Europe as well. The European Commission's Advanced ATM Systems (EUAMS) project is defining concepts for the long-term future air traffic management systems (called the European Unified ATM System, EUAMS). Among the recommendations in one class on ADS-B dependent surveillance network should be pursued. Further, the integrity, availability and capacity of such a system needs to be verified and a suitable set of frequencies for Europe needs to be allocated.

An operational GPS visionary — Capt. William B. Cotton, manager of air traffic and flight systems for United Airlines — said ADS-B will be an unprecedented tool for tactical separation of aircraft, both for controllers on the ground and between aircraft. Even without GPS augmentation, ADS-B will improve the location of an aircraft for controllers within or near the size of a 747. With differential GPS, provided by a system such as the FAA's wide area augmentation system (WAAS), the precision of aircraft location will be improved to an even smaller area. In addition, an ADS-B aircraft pursuing the message could include the velocity vector. Changes in the vector would give controllers an early indication of an aircraft's intent.

"While that level of accuracy is not needed for en route navigation, it offers new uses that could entice airlines to invest — such as the ability to reduce separation during instrument approaches in IFR conditions down to VFR separation standards. Pairs of ADS-B equipped aircraft could make approaches under instrument conditions in VFR rates, saving time and fuel compared with non-equipped airlines.

Cotton proposes a concept called "Traffic Conditional Approach," using ADS-B, that could permit dual IFR approach streams leading to very closely spaced parallel runways, which would be impossible today. One candidate for the concept would be San Francisco International Airport, which has two pairs of parallel runways crossing near their mid-points. Each pair of runways is separated by only 750 ft., which is far less than the spacing required for parallel ILS approaches. However, during VFR conditions pilots are permitted to shoot ILS approaches to both runways, maintaining separation through visual contact. ADS-B could give that capability during IFR conditions.

ADS-B equipped aircraft would be tracked in pairs with the lead aircraft making an ILS or GPS straight-in approach. The trailing aircraft would fly a GPS approach, converging to a three-mile straight-in point. ADS-B information from the lead aircraft would allow the trailing aircraft to stay within a "window," ½ to ¾ miles behind the lead. Within that window, a blunder by either aircraft would not result in a collision, and normal tracking of the approach course would avoid wake turbulence, Cotton said. The window also accommodates dissimilar final approach speeds, avoiding true formation flight. He concedes that a good deal of simulation and flight test development is needed to prove such a concept, but argues that the benefits could be substantial to any air carrier that performed a majority of operations at such an airport.

DOMESTIC AIR TRAFFIC control does not need the architecture of a full Future Air Navigation System (FANS), according to Cotton. But ADS-B is essential to free flight in much the same way that the transponder was to the National Airspace System Plan in the 1960s. In that plan, transponders augmented the existing radar system, correlating a radar return with a specific aircraft, and adding surveillance in areas outside of radar coverage. ADS-B will similarly extend the surveillance capability for controllers and alert pilots to other aircraft in their area.

FANS and free flight are not synonymous. FANS is an architecture, while free flight is an operational concept that will use the FANS architecture. And ADS-B will contribute to a number of the steps along the way from the current ATC to the future air traffic management system.

> **"ADS-B will be an unprecedented tool for tactical separation of aircraft, both for controllers on the ground and between aircraft"**

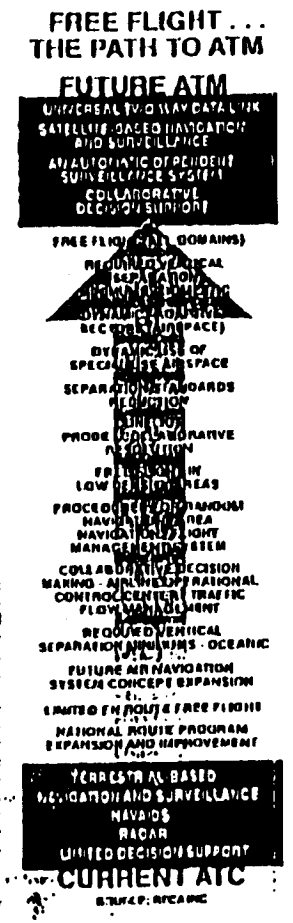
United is one of the early equippers to equip its aircraft with the FANS-1 package, which combines GPS and satellite data links to ATC with the aim of saving flight time and fuel on its Pacific routes (*AW&ST* Sept. 4, 1995, p. 28). "United is making a pot full of money with FANS," said Dick Taylor, who chaired the RTCA Task Force 3 that reported on Free Flight implementation.

Still unresolved is the issue of what radios and frequencies to use for the ADS-B data link. A leading contender is a technique that could be readily manufactured using the Mode S transponder from TCAS, since it is now installed on more than 6,000 commercial aircraft in the U.S. Each would broadcast its location in 1 bit/sec over a Mode S squitter at roughly one sec. intervals (*AW&ST* Apr. 10, 1995, p. 53).

Other competing techniques would use a variety of time division multiple access (TDMA) techniques, one using Mode S and the Swedish self organizing TDMA, over VHF. General aviation would prefer a VHF data link, preferably reusing the VOR spectrum. Steven J. Brown, senior vice president of Aircraft Owners and Pilots Assn. said. Another link under development, DBPSK, is targeting the general aviation market (*AW&ST* May 18, p. 44). The Defense Dept., with 15,425 aircraft — nearly 10,000 jets and props that operate in positive control airspace — has no military requirement for Mode-S, Frank Carlson, executive director of the Defense Dept.'s policy board on federal aviation, said.

ADS-B could be mandated, or encouraged by extending benefits to suitably equipped aircraft. Cotton advocates the latter, but Carlson warned that approach "extortion through exclusion," effectively saying: "You don't have to equip your aircraft, just don't fly in the airspace." A Defense Dept. concern about either approach is cost. Carlson said it would take $1 billion and five to seven years to put "one of anything" on all their aircraft.

ADS-B could provide some but not all of the capability of TCAS, which has the advantage of active interrogation and vertical maneuver guidance. ADS-B should be seen as a complementary system, which could augment TCAS surveillance and provide some mid-distance filtering and a basis for horizontal avoidance maneuvers, said Frank Cheshire, technical pilot for American Airlines. TCAS does not have sufficient accuracy to distinguish aircraft on various parallel runways, how augmented ADS-B does. ○



Europe Tests Core Of New ATM System

BONNIE MICHAELS/CHOBHAM, ENGLAND

European air traffic control and research organizations have developed and tested the core elements of a new integrated air traffic management (ATM) system for the 21st century.

Program officials have finished their analysis of the latest demonstrations, completed last year. They used the results to validate several of new technologies and computer assisted tools that were acceptable to controllers and aircrews, and integrated into a complete ground system was demonstrated.

The effort, dubbed the Program for Harmonized Air Traffic Management Research in Eurocontrol (PHARE), is being sponsored by Eurocontrol and national ATC authorities in the U.K., France, Germany and the Netherlands. Italy officially joined the council in January, and is an observer on the PHARE program. Eurocontrol has shown an interest in becoming a full member of the project. Canada and the U.S. FAA are associate members.

Funding for the 10 year effort is set at 80 million pounds ($123 million). Euro-

07/15/98 08:20 2068783200 FRANK HANSEN 005
AR 036262

RCAA
Regional Commission
on Airport Affairs

19900 4th Ave SW
Normandy Park, WA 98166
(206) 824-3120
FAX (206) 824-3451

April 17, 1998

Federal Aviation Administration
Seattle Airports District Office
SEA-ADO
Federal Aviation Administration
1601 Lind Avenue Seattle, Washington, Suite 250
Renton, WA 98055

Attention: Mr. Wade Bryant

Dear Mr. Bryant,

The Regional Commission on Airport Affairs ("RCAA") is a non-profit organization concerned with regional transportation issues affecting Puget Sound area residents. RCAA's mission statement includes the goals of finding sound, environmentally sensible solutions to our region's growing transportation needs. We are hereby enclosing the following comments concerning the recent public notice of application filed by the Port of Seattle (the "Port") for collection of passenger Facility Charges ("PFCs") at Seattle-Tacoma ("Sea-Tac") International Airport.

An an initial matter we take issue with the proposal put forward by the Port's Aviation Director in her prefatory comments submitted with this application. In her "Aviation Director's Message" Ms. Lindsey cites PFC applications recently submitted to the Federal Aviation Administration ("FAA"). In the application Ms. Lindsey requests that FAA issue a pledge not to terminate PFC's collected at Sea-Tac, in the amount necessary to retire the amount of the revenue bonds outstanding at such future time that the FAA terminates or restricts the amount of PFC revenues collected at Sea-Tac airport.

We believe that such a waiver poses serious financial risks to both the travelling public as well as to the PFC program. Granting such a waiver, and relegating future disputes concerning the more controversial elements of the twenty five year capital program outlined in the PFC application to a "resolution process" supervised the Sea-Tac Airport authority is, in our view, problematic. We believe that such a granting of a PFC termination waiver will strip the FAA and the public of the necessary procedural safeguards needed in to ensure that projects undertaken by the airport authority promote the interests of aviation capacity and safety. We do not believe the legislation enacting PFC collections contemplated striping away oversight over aviation projects and that such steps pose a serious risk to the airlines as well as to the travelling public.

This application proposes the collection and use of over one billion dollars of public funds over the next two and one-half decades. The Port proposes leveraging this revenue stream and issuing approximately $360 million dollars of revenue bonds over the next several years to fund capital projects. We do agree with Ms. Lindsey's belief that the FAA's refusal to grant a long-term waiver of termination of PFC collections constitutes a risk to the proposed short –term bond indentures.

However, we note on page 43 of the application the Port states "[g]iven the magnitude of this PFC application and the intricacies of Bond issuance, the Port is seeking to reserve the flexibility to reorganize the projects funded or proposed to be funded with bond financing, an/or to reorder the pay-as-you –go projects as currently proposed." In other words the Port is asking for the flexibility to spend the proposed $360 million dollars for an as yet unclear and unscheduled range of projects. See also the enclosed copy of Port of Seattle memorandum dated January 23, 1998 concerning status of the airport's capital program. As noted below the doubts and uncertainties surrounding the projects cited in the application, and the failure of the applicant to provide a process for implementing procedural safeguards when implementing the PFC capital program, warrant the rejection of the proposed application.

We also note that Table 5 in the application projects an 80% increase in "Forecast PFC revenue" and passenger at Sea-Tac airport, from Sea-Tac's present level of 13 million passengers per year to 22 million passengers per year in 2020. We question such long-range projections of increased growth at Sea-Tac. Growth of regional air traffic in the Puget Sound area is likely to occur at supplemental airports in the region. The application fails to consider the effect of operations at other reliever airports on passenger traffic (and PFC revenues) at Sea-Tac airport. The Supplemental EIS issued for the Sea-Tac Airport Master Plan notes that Sea-Tac, even with a 3rd runway will reach levels of serious congestion by the year 2010. It is reasonable that supplemental airport capacity, provided by alternative existing FAA designated reliever airports, will divert traffic from Sea-Tac, reducing activity from the projected levels indicated on Table 5. Such shortfalls will impact the revenue stream used to leverage the issuance of PFC backed revenue bonds. This, in our view, presents a serious risk to the proposed financing scheme proposed in the application.

We also note the comments provided the tenant airlines at Sea-Tac. In particular the issue of diversion of airport associated revenue has been raised by the airlines, on several projects, including project AP4-4 (Third Runway Project) The FAA has previously rejected land acquisition projects as not qualified for approval for PFC collections (See FAA Record of Decision dated 12/29/95 concerning Port Application No. 95-03-C-00-SEA and disapproving land acquisition for the South Aviation Support Area) Airlines nationwide are expressing concerns about diversion of airport revenues for non-airport related projects. The Air Transport Association recently filed suit against the Port Authority of New York and the FAA concerning alleged diversion of PFC revenues from non-aviation projects. (See enclosed press release "ATA Files Suit Over New York Train") The aviation industry is also calling for greater scrutiny over PFC charges and requesting that objective analyses be conducted for projects receiving PFC revenues. We note particularly the comment made in this application (Page C-6) by United Airlines concerning the proposed third runway project:

> *"United disagrees with the proposed use of PFCs for this project because it believe[s] that the plan is inconsistent with the purpose of the legislation authorizing airports to impose PFCs, would facilitate the Port's improper diversion of federal air transportation fund to a local municipality (revenue diversion) and lacks the required detailed financial plan. United disputes the assertion that the third runway is necessary to eliminate a seven minute average delay at the airport, saying 'none of that delay is attributable to the lack of a third runway but a number of other factors. United is of the opinion that the Airport's estimate that a third runway will provide $60 million of operational savings is not supportable using standard business calculations."*

We agree with this and comments made by many other tenant airlines in this application raising concerns about the proposed use of PFC for these proposed projects. We believe the issues raised must be resolved before the FAA approves the application.

Finally, we would like to point out that the capacity projections indicated in the application are inconsistent with the earlier projected levels contained in the Supplemental Environmental Statement for the Port of Seattle's Master Plan. According to page B-24 of the Application "[o]nce the new runway is operational SEA's [Sea-Tac airport's] annual capacity will increase from 460,000 to 630,000 aircraft operations." Please note that the environmental impacts of the Master Plan projects contemplated in the PFC application, have been evaluated assuming an activity level of 474,000 operations per year at Sea-Tac. We believe this new information contained in the PFC application concerning the projections of aircraft traffic levels warrant a supplemental EIS concerning the impacts of the proposed project.

If you have any questions please do not hesitate to call.

Sincerely

Allan M. Furney
President, RCAA

Enclosures

cc:

Ms. Gina Marie Lindsey, Port of Seattle
Mr. Terry Page, Manager, Washington Airports District Office
Washington State Congressional Delegation
State and local Elected Representatives

STATE OF WASHINGTON

POLLUTION CONTROL HEARINGS BOARD

CITIZENS AGAINST SEATAC EXPANSION Appellant v. WASHINGTON DEPARTMENT OF ECOLOGY; and PORT OF SEATTLE Respondents	)	No. NOTICE OF APPEAL

1. APPEALING PARTY: The appealing party is:

Citizens Against Seatac Expansion
19900 4th Avenue SW
Normandy Park, WA 98166
Phone: (206)824-0805
Fax: (206)824-3451

The appealing party is represented by

Richard A. Smith
SMITH & LOWNEY, P.L.L.C.
1108 Smith Tower
506 Second Avenue
Seattle, WA 98104
(206)624-0893
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2. ADDITIONAL PARTIES: In addition to the appealing party, the parties to this appeal include respondents Washington Department of Ecology, Olympia, WA 98504-8711, and Port of Seattle, Seattle-Tacoma International Airport, P.O. Box 68727, Seattle, WA 98168.

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3. ORDER OR DECISION APPEALED FROM: This appeal is from the issuance of NPDES permit no. WA-002465-1 and the Fact Sheet thereof issued by the Washington Department of Ecology to Port of Seattle on February 20, 1998. A copy of the NPDES permit, the Fact Sheet, and the permit application is attached to this Notice of Appeal.

4. GROUNDS FOR APPEAL: The appellant considers the issuance of NPDES permit no. WA-002465-1 to be unlawful because:

a) the Department's last-minute inclusion of the land area within the proposed "acquisition boundary" in the area regulated by the permit -- without actual notice to the many property owners and residents who have no formal relationship with the permittee -- is outside the statutory authority of the agency or the authority conferred by a provision of law and violates the Administrative Procedure Act (APA), RCW 34.05; and violates due process under state and federal law;

b) the permit's provisions excluding sheared-off or dripped deicing and anti-icing agents from the definition of industrial wastewater (Special Condition S1.) are arbitrary or capricious, or outside the statutory authority of the agency and violate the APA, RCW 34.05; violate the "antibacksliding" provisions of federal law, Section 402(o) of the Clean Water Act, 33 U.S.C. § 1342(o), 40 C.F.R. § 122.44(l); and violate Washington's antidegradation policies for surface and ground waters;

c) the permit's provisions regarding overflows of untreated industrial wastewater from the IWS collection systems or lagoons due to stormwater flows in excess of the design criteria (Special Condition S1.E) violate Washington's water pollution control laws, RCW 90.48, by allowing discharges of toxicants that would violate water quality standards; and violate Washington's antidegradation policy for surface waters;

d) the permit provisions with respect to discharges of industrial wastewater to ground water (Special Condition S1.F) violate Washington's Ground Water Code, WAC 173-200, by failing to

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protect existing and future beneficial uses of the ground water through the reduction or elimination of the discharge of contaminants to the state's ground waters; by failing to require the application of all known, available, and reasonable methods of prevention, control, and treatment to all releases of industrial wastewater to ground water; by failing to establish and publish an enforceable schedule of compliance including the lining of Lagoon 3 by a date certain within a reasonable time period; and violate Washington's antidegradation policy for ground waters;

e) the permit provisions respecting fecal coliform violate Washington's water pollution control laws, RCW 90.48, by allowing discharges of toxicants that would violate water quality standards; and violate Washington's antidegradation policy for surface waters.

5. STATEMENT OF FACTS

Respondent Port of Seattle operates the Seattle-Tacoma International Airport ("Sea-Tac"). The Port provides facilities for tenants engaged in passenger and cargo air transportation. Industrial activities at the airport include aircraft and ground vehicle maintenance, fueling, washing, deicing and anti-icing, and miscellaneous airport-related activities.. Materials in use at the facility that constitute pollutant sources include fresh and used engine fluids, aviation and ground vehicle fuels, aircraft and vehicle wash waters, hangar floor wash waters, glycol, urea, and acetate-containing fluids from deicing and anti-icing of runways and taxiways. The "Fact Sheet for NPDES Permit WA-002465-1", which appellants believe is impaired in other respects by significant errors and omissions, otherwise provides adequate background information about the airport operations. The permit appealed here is the reissued NPDES permit for Sea-Tac Airport. Specific facts supporting the above-listed grounds for appeal are stated below.

a) The Port of Seattle presently intends to acquire certain property to enable future airport expansion. On information and belief, the intended "acquisition area" -- in which several hundred persons reside on private property -- encompasses approximately 240 acres. The precise amount is unknown because neither the applicant nor the Department has identified the amount

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of acreage involved. And neither the NPDES permit application, nor the draft NPDES permit, nor the draft Fact Sheet, nor the final Fact Sheet provided the public, or landowners or residents of the proposed acquisition area, with any notice that the Department intended to extend permit coverage to all of the area within the acquisition boundary – much less with any explanation of the impacts or significance of this agency decision. Nevertheless, the reissued permit now provides that "This permit regulates the area within the property boundary and the acquisition boundary shown on Figure 2 of the Fact Sheet." (Special Condition S1.) The extension of permit coverage to privately-owned property in the acquisition area is manifestly a major permit modification fully subject to the public notice and comment requirements of state and federal law, and the requirement of explanation in the draft permit fact sheet.

b) The application of deicing and anti-icing chemicals to aircraft results in the use of over 300,000 gallons of ethylene glycol-based and propylene glycol-based fluids per year at Sea-Tac. Whether these fluids are extensively treated or entirely untreated prior to their discharge into surface waters depends entirely on whether they are characterized as "industrial wastewater" and thus directed to Sea-Tac's Industrial Wastewater System. The previous permit defined industrial waste water as follows:

> "Industrial wastewater" means the water or liquid carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feedlots, poultry houses, or dairies. The term includes contaminated stormwater and also leachate from solid waste facilities.

While this definition was in effect, the Department affirmatively required the Port to recapture deicing and anti-icing fluids and direct them into the Industrial Wastewater System (IWS) for processing.

Under the reissued permit, however, the definition of "industrial wastewater" has been changed, in Special Conditions S1.A and S1.B, footnote a, as follows:

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> Industrial wastewater is water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater, non-contact cooling water, or stormwater associated with industrial activity. Industrial wastewater may result from any process or activity of industry, manufacture, trade or business, and includes, but is not limited to: water used for industrial processes such as pipe integrity pressure testing and vehicle and aircraft wash water; stormwater contaminated with fuel, oil, fire foam, cleaning agents and aircraft deicing/anti-icing agents; contaminated construction dewatering waters; excess water from ground water well construction and monitoring; and leachate from solid waste facilities. Industrial wastewater does not include stormwater runoff that contains deicing/anti-icing agents that shear or drip from aircraft in the storm drainage system.

By changing the definition of industrial wastewater to exclude "stormwater runoff that contains deicing/anti-icing agents that shear or drip from aircraft in the storm drainage system[,]" the Department has significantly reduced the Port's responsibility to recapture and treat these pollutants. This action is arbitrary or capricious; constitutes impermissible backsliding; and violates Washington's antidegradation policy.

c) The Permit provides that: "Discharge of industrial wastewater to the Storm Drain System is prohibited." (Special Condition S1.E) However, Special Condition S1.E further provides that: "Overflows of untreated industrial wastewater from the IWS collection systems or lagoons due to stormwater flows in excess of the design criteria are authorized bypasses that are not subject to this condition." Overflows of untreated industrial wastewater directly result in discharges of toxicants violating water quality standards. Such discharges occur during large or very large storms, and are particularly likely to occur when the Midway Sewer System invokes contractual authority enabling it to sharply restrict outflows from the Industrial Wastewater Treatment Plant. Such discharges of untreated industrial wastewater to surface waters are illegal unless all known, available and reasonable methods of prevention and treatment ("AKARTs") are applied. The AKART requirement has not been enforced here, given the failure to enhance the capacity of the IWS to anticipate curtailments by Midway, and the failure to shield the IWS storage lagoons from capacity-diminishing rainfall.

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Petitioner reserves the right to amend its appeal in any respect, and to plead and present additional legal theories and errors over those alleged herein, and to request that the pleadings be amended to conform to the evidence.

Petitioner requests that all further notices and pleadings in this matter be served upon its attorney at the address given in section 1 above.

On behalf of petitioner Citizens Against Seatac Expansion, I have read this Notice Of Appeal and believe it to be consistent with CR 11.

7. CERTIFICATE OF SERVICE. In compliance with WAC 371-08-345 and 371-08-305(9), I hereby certify that I have served a copy of the notice of appeal and attachments on the Department of Ecology by certified United States mail, return receipt requested, on this date.

DATED this 23rd day of March, 1998.

SMITH & LOWNEY, P.L.L.C.

By: _____
Richard A. Poulin, Of Counsel
Alaska Bar # 9211097

Richard A. Smith, WSBA #21788
Attorneys for Petitioner

AR 036273

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COMMENTS OF SEATTLE COMMUNITY COUNCIL FEDERATION
ON APPLICATION OF THE PORT OF SEATTLE
TO IMPOSE ONLY, IMPOSE & USE, & USE ONLY CERTAIN FUTURE
PASSENGER FACILITY CHARGES AT SEATTLE-TACOMA
INTERNATIONAL AIRPORT, SEATAC, WASHINGTON

1. INTRODUCTION

1.1 Introduction – subject matter. Seattle Community Council Federation submits these comments on that certain application with regard to revenue from future passenger facility charges referred to in the notice appearing at 63 Federal Register 13297-8 (dated 18 March 1998), wherein the Port of Seattle seeks leave to impose only, impose & use, & use only, the revenue from future passenger facility charges at its Seattle-Tacoma International Airport. (This application is sometimes referred to locally as 'Application 4'.) The purpose of the application is to provide funds for the construction of various projects at the Airport. The projects are part of the group of capital expenditures contemplated in the Airport's present Master Plan Update. In general, the projects relate to expansion of the Airport, both in a physical sense and in terms of level of operation (volume of passenger and cargo traffic through the Airport).

1.2 Introduction – identity & interest of commenter. Seattle Community Council Federation is a city-wide federation of community clubs, community councils, neighborhood associations, and similar groups in the City of Seattle. Seattle is heavily impacted in both positive & negative senses by the activities of Seattle-Tacoma International Airport (hereafter referred to as 'Airport' or 'Sea-Tac'). Seattle is the originating point for more personal & business passengers departing Sea-Tac than any other city, and it is the destination of more arriving passengers than any other city. Many of the residents that our members groups represent have a direct financial concern with the Airport, & with the costs that they incur, personally or in business, as the result of using it. All arriving & departing flights under what are called 'North flow' conditions fly over Seattle residential neighborhoods. Noise from Sea-Tac activities has increasingly become a concern for Seattle residents and their neighborhood groups in the last 15 years or so, as the volume of Sea-Tac flights ever increases, with resultant higher levels of annoying noise, & increasing amounts of air pollution from overflying jet aircraft. Concerns as to safety on the ground are growing, as the fleet mixes at Sea-Tac and at nearby King County International Airport shift to ever-larger, ever-faster aircraft, & many more of them. In ways too numerous to list here, our organization has

participated actively in matters relating to the Airport since the days of the Overflight Committee.

1.. Introduction: abbreviations. The following abbreviations are used from time to time in these Comments:

ACC	Airport Communities Coalition
DEIS	Draft Environmental Impact Statement
EIS	Environmental Impact Statement
FAA	Federal Aviation Administration
FEIS	Final Environmental Impact Statement
fSEIS	Final Supplemental Environmental Impact Statement [for Sea-Tac Airport Master Plan Update]
GPS	Global Positioning Satellite system
LDA	Localized Directional Approach system
MPU	Master Plan Update [for Sea-Tac Airport
PFCs	Passenger Facilities Charges
POS	Port of Seattle
PSRC	Puget Sound Regional Council
SEIS	Supplemental Environmental Impact Statement [for Sea-Tac Airport Master Plan Update][

2. SUMMARY

2.1 Summary of comments. Our comments may be summarized as follows: The application should be denied in its entirety. (a) Without regard to the desirability of the projects that the application would fund, the application proposes a financing scheme for construction that is fiscally unsound, & which would result in users paying, over time, far more for those projects than they would pay under a more fiscally-sound financing scheme. (b) For various reasons, the projects proposed to be constructed should not be built. Granting the application might facilitate those projects, if other financing can also be developed by the applicant. The projects being undesirable, they should not be facilitated.

3. APPLICATION PROPOSES FISCALLY-UNSOUND FINANCING SCHEME

3.1 The application proposes a fiscally-unsound scheme for financing the construction of projects at the Airport that would result in excessive costs. One method of paying for airport capital projects would be to reimburse contractors as they complete their work, using current revenues for the purpose. This is the 'pay-as-you-go' approach, which the

author of "Poor Richard's Almanac" would applaud, as we would too, were it practical in this situation.

Another method is to go into debt to pay one's contractors. That, as we understand it, is what the applicant intends. The obvious method is to enter into a debt-financing arrangement with the contractors themselves, which is not acceptable in projects such as those under consideration. The next method is to borrow money from commercial lenders and use the funds so derived to pay one's contractors. Given the expensive nature of the projects here involved, & given various legal & fiscal constraints on airport operators generally, and on municipal corporations in Washington, such borrowings cannot as a practical matter be undertaken for Master Plan Update projects on the general credit of the Port of Seattle. Rather, commercial lenders will require (as they have in the past) that the Port define a revenue source for repayment of its borrowings, & enter into binding agreements with the lenders that effectively pledge that revenue source to repayment of the loans. As we understand the proposal, the applicant intends to pledge its anticipated receipts from future PFCs through the year 2022, to commercial lenders, to ensure its repayment of construction loans. This necessarily implies that the Port intends to enter into 25-year loans for at least some, if not all, of its construction projects at the Airport. In our view, this is unsound. As any homeowner with a 20- or 30-year mortgage knows, borrowed money is expensive, & when repayment stretches over 20, 25, or 30 years, the cost is usually in excess of the principal sum itself! Numbers that were floated last Fall indicated that the Port would pay out $314.98 in interest to borrow $260 million.

We are not clear about the exact dollar figures now in contemplation, but the general thrust is clear. We recognize that most construction projects at public airports in our State will necessarily be paid for with borrowed money, but 20- and 25-year loans will result in the projects here involved having true costs far in excess of what the general public, responsible public officials (both elected & unelected), the relevant planning bodies, & all permitting agencies, have been led to believe.

We believe that this would be an imprudent use of the passenger facilities charges. It is akin to credit-card financing of a new-car purchase – a very expensive way to meet one's current demands, a long-term commitment of what should be a current asset. And of course there is the very real risk that the applicant will find itself needing a good revenue stream for other purposes long before 1 January 2023, but the PFCs will not be available. The FAA is here in a position analogous to that of the old-fashioned family banker, who rejects loan applications from good friends not because there is no reasonable prospect of repayment but to protect the applicant from the future consequences of present folly. For this reason alone, the application should be denied.

3.2 Financing proposal unsound in light of air-traffic projections. (a) *Long-term debt should not be incurred for short-term projects.* We recognize, indeed we have been saying for years in commenting on various FAA & POS proposals to expand Sea-Tac, that predicting future levels of commercial air traffic is a chancy business, more like an art than a science. "Voodoo statistics", to paraphrase that astute observer, George Bush. For years, our comments have called attention to the dubious practice of expressing air-traffic projections as absolute numbers, rather than as ranges of possibility. Having said that, & expressing our recognition that the sixth EIS for the third-runway project (the final supplemental EIS) declines to give ANY estimate of air travel for Sea-Tac past the year 2010, we note that by all present projections, the third runway will be at & over capacity long before the borrowings for its construction will have been repaid, if the instant PFC application be approved. In acquiring property with a short useful life, one simply does not incur debts for costs of that acquisition that extend beyond the property's likely useful life. One credible projection suggests that the third runway, and the entire Sea-Tac facility, will be overloaded on the day that the runway opens for business, even if it opens as soon as the Port's present overly-optimistic schedule predicts. One does not buy a car on a 20-year note. An airport should not finance a one-year, or five- or 10-year project on 25-year debt. The FAA should not encourage or enable the Port of Seattle to engage in such risky, unsound, unbusinesslike practices.

(b) *Too much interest, for too little gain.* When the Airport exceeds practical capacity, then what? Will the FAA and Port be back to tout the fourth runway, plans for which were accidentally disclosed in earlier planning documents? Surely no-one in his right mind will propose that again. Where does the FAA plan to put the excess traffic when overload occurs, as all projections suggests it will, soon. We submit that at some time the FAA must face the inevitable: Sea-Tac Airport cannot grow much more, either physically or operationally. Some relief can be achieved through such technologies as GPS and LDA, but there is a very real possibility that even with these measures, making the third runway into a second independent runway, traffic volumes will far overtop Sea-Tac's ability to handle them. We assume that the political movers & shakers of Kitsap, Pierce, & especially Snohomish Counties will still be able to prevent use of existing airports in their counties to deal with the overload. A new airport will then be inevitable. The time is coming, and coming soon, when that inevitable situation will be apparent to even the most short-sighted. A satisfactory new airport will displace Sea-Tac as the main facility for the biggest and busiest airlines & aircraft. The facilities proposed in Sea-Tac's Master Plan Update will be obsolete, & that airport will need to find a new future. This line of reasoning leads to the conclusion that much of that interest money to be paid to commercial lenders if the instant application be approved will be wasted. The application should be denied.

3.3 The application is unsound because of the great expense of the principal proposed capital expenditure. The principal capital expenditure in the Port's Master Plan Update proposals is the proposed third runway. (We recognize that this would actually be something like the sixth or eighth runway built at the facility, & that in operation it would serve as a second runway, but the term 'third runway' is too entrenched in usage to be replaced at this time.) The third runway, as is well known, would be by far the most expensive undertaking of its kind in U.S. aviation history. In terms of the short run, meeting the poor-weather delay that has been advanced as the immediate justification for that third runway, that project is the most expensive possible way to reduce delay, if any there be. Improved aeronavigational facilities, such as GPS and LDA, would provide an immediate fix, by the year 2000. The capital costs for such remedies would be much less than the capital costs, and the borrowed-money costs, for this most expensive of all runways. A short-term, low-cost solution would leave fiscal resources of the future available for the capital costs of a long-term solution, a solution not to poor-weather delay (which we believe to be a red herring) but to inherent capacity overload.

3.4 The application would impose an unfair burden on Seattle users of the Airport. (a) *Seattle pays heavy interest costs.* As we noted in our introductory remarks, more travellers departing from Sea-Tac start from, are residents of, Seattle than from any other city. (Note that we do NOT regard a traveller who spends the night away from home at a hotel in the city of SeaTac before leaving from the Airport as starting his trip from SeaTac – he starts his trip from his home base in Chicago, or Singapore, or wherever.) The burden of the future PFCs will, in gross, fall most heavily on Seattleites. But, as we noted in section 3.1, supra, p.3, the applicant proposes to use the PFCs in such a way that two dollars of PFC money will be used to pay for each dollar of capital improvement at the Airport. Our residents will not be getting good value from these charges. Personal users of the Airport will not be able to spread their PFC costs to others, though business users can. But businesses, too, should be treated fairly, & their costs of operation, & thus their costs to customers & clients, should not be increased unnecessarily, as by having to help pay for grossly excessive costs of borrowed money, as this application would impose.

(b) *Seattle pays for noise remedies, but gets none.* Part of the PFC proceeds will, we learn from the notice in the Federal Register, be intended for support of noise-remedy programs. We strongly support noise-remedy programs for this airport, & surely desire that they be fully funded – and expanded. However, at present the Port provides no noise remedies within Seattle, badly need though such remedies be.

(c) *Noise remedies need a broader fiscal base.* It is appropriate to repeat the first portion of (b) above: Part of the PFC proceeds will, we learn from the notice in the Federal Register, be intended for support of noise-remedy programs. We strongly support

noise-remedy programs for this airport, & surely desire that they be fully funded – and expanded.

The present noise-remedy program at the Airport is generally recognized as being woefully inadequate. It is based on noise metrics that fails to capture the true impact of overflight noise. The noise levels posited for the program are based on levels of operations at the Airport that were exceeded long ago. The computer model used to predict noise-metric contour lines is questionable, as the Expert Arbitration Panel of the Puget Sound Regional Council found, after exhaustive investigation. The Port of Seattle puts little of its own money into its noise-remedy program, relying on Federal funds for the great bulk of what is done. The Port does less with available Federal funds than applicable regulations & guidelines permit (e.g., it restricts remedies to areas within a 65-Ldn contour line, even though FAA has repeatedly provided top-level guidance that such limitations are not required). The Port has not yet provided noise remedies (insulation, predominantly) to multi-family residences, schools, & other non-residential institutions adversely affected by its second runway, opened for business a generation ago. Even insulation already completed, however belatedly, was done so poorly that the Port is now in the process of re-doing the earlier work in hundreds of instances. The program needs a great expansion, which necessarily infers a great infusion of additional money. We support that basic idea.

However, the reason that a greatly expanded noise program is needed is, at root, that regional decision-makers, strongly supported by the FAA, made an inappropriate decision to continue expansion of commercial aviation activities at the Sea-Tac site, where impacts are very high, rather than: (a) diverting some Sea-Tac operations to other, existing, near-by airports (a political decision, not a decision based on availability of ground facilities, economics, air-space constraints, or any other logical basis); or (b) creating a new, near-by airport, or (c) creating a new, remote airport actually capable of meeting the needs of the region (the State, at a minimum) into the far future. Any of those alternatives would have much reduced the need for noise-remedy programs, especially for those that would be funded by PFCs at Sea-Tac Airport. That decision to focus all expansion into the Sea-Tac site directly & immediately served the political needs of elected officials in Pierce, Snohomish, and Kitsap Counties, who dominated the deliberations of, & held all the key offices in, the Puget Sound Regional Council. Those counties' leaders spared their communities from the impacts of expanding commercial-aviation activities, for their own parochial purposes. It is unfair that residents & business of Seattle should be expected, through PFCs, to pick up the lion's share of future noise remedy programs necessitated by this inept decision. Seattle continues to be hammered by Sea-Tac noise, with no relief in sight, and is now being asked to pay to fix the problem – partially – through this PFC application. A fairer method of meeting the costs is required, one that imposes a large share of those costs on those who actually benefit from the decision to cram all aviation growth into Sea-Tac and King County Airports.

Those who benefit, but are bearing no part of the financial burden, are the county governments, & the residents, of Pierce, Kitsap, and especially Snohomish Counties. They should be compensating the communities around Sea-Tac Airport (including Seattle) at the rate of tens of millions of dollars annually. FAA enabled & encouraged the decision to focus growth into Sea-Tac, & FAA too should help to remedy the harm, from its own funds, not by passing the costs on to the victims through PFCs.

4. MASTER PLAN PROJECTS UNSOUND

4. The Master Plan Update projects are unsound, & should not be enabled. The Master Plan Update projects, conspicuously including the third runway, are unsound. IN an earlier part of these comments we have mentioned the short useful life expected for the third runway. Assume, however, for the sake of the instant discussion that the third runway and its associated improvements (new terminal & the like) will continue to enjoy a high level of use after Sea-Tac exceeds actual capacity. Even then, the expansion proposals are unsound, given their high cost.

There remain two competing theories of why these expansion proposals are put forward. The official theory, originating with the FAA & POS, is that the expansion is needed to overcome certain poor-weather conditions that impose 'delay' (never defined). (1) The official theory holds that there will be NO increase in capacity as the result from these improvements. If anyone reading these comments in FAA is not familiar with the NO INCREASE position, & supposes that we are making this up, we refer such a reader to the final supplemental environmental impact statement, where the unnamed authors in so many words stake their professional reputations on that conclusion. (2) The generally-accepted theory is that Sea-Tac's owners, the Port of Seattle, seek a major increase in the Airport's capacity, & that delay (however defined) has nothing to do with the exercise.

Projects Unsound on Basis of Alleviating Delay. Accepting the 'delay' theory *ab arguendo*, we continue to believe that there is in fact no definable delay of any consequence. This matter has been argued, not only by this organization but also by such others as the Regional Commission on Airport Affairs and the Airport Communities Coalition, in the long-running dialogue scattered through the comments & responses to comments in the three final EISes for this project. The argument need not be repeated here: (New FAA readers, if any, can find the argument in the EIS paperwork. If such readers have trouble locating each part of the argument, may we remind them that we asked PSRC, POS, and FAA for topical indices for these documents as part of our comments on each of the three draft EISes, but the preparers, including FAA's Dennis Ossenkop, chose not to include such indices, for unknown reasons.)

The historical record is less important than the fact that a new group of critics of the 'delay' theory have now appeared: several of the major air carriers who use the Airport have responded to the instant application, when presented to them before submittal to the FAA, by noting the insubstantial nature of the 'delay' justification. FAA reviewers should, we recommend, secure the full texts of the responses by the air carriers, rather than relying on paraphrases & partial quotes as found in Section C (Tab C) of the application, or our paraphrase. We have reviewed the paraphrases & partial quotes, which start in most relevant part on p. 6 of the applicant's "summary of substantive comments by air carriers", which is the last document in Section C of the document. **We concur completely with the comments of Delta and United. If there is delay caused by circumstances at Sea-Tac, it is ill-defined, & not likely to be much improved by construction of the world's most expensive runway. While there is admittedly delay in commercial aviation, it springs from a myriad of reasons, many of them uncorrectable & almost all of them quite unrelated to any possible physical projects at Sea-Tac. Whatever delay there is, the costs of the Master Plan Update projects, & of the third runway in particular, far outweigh any possible financial benefits that might be achieved from its construction.** We concur also in Delta's quoted observation that the true costs of the projects are not stated completely. This is so not only as to the base costs but also, we believe, as to the cost of borrowed money, and also costs of mitigation of adverse impacts (addressed below, pp. 9-10).

It is noteworthy that this analysis by the named airlines extends to financial benefit to the airlines themselves, even though the justifying documents prepared by the Port and the FAA (EISes and the 'Record of Decision') claim (quite without documentation, or even reasoned analysis) that there would be financial benefits to the airlines far outweighing costs to them. One should be inclined to believe the airlines on a matter like this, rather than project proponents.

The financial analysis by airlines, especially United and Delta, suggests that the overall MPU proposal cannot receive needful support from Sea-Tac air carriers in terms of new long-term lease agreements, from which it follows that the financing strategies adopted by the applicant have already failed.

Projects Unsound on Basis of Capacity Increase. If one assumes, as we do, that the true purpose of the Master Plan Update has little or nothing to do with 'delay' (however defined) & everything to do with increasing capacity, if one believes, as we do, that the professional reputations of the preparers of the final supplemental EIS would lie in tatters were the third runway to be guilt & go operational, and if one accordingly concludes that the Master Plan Update projects, & in particular the big-ticket item of the third runway, would actually result in an increase in capacity, & in usage, at the Airport, the project is nonetheless unsound, & should not be enabled.

The increase in capacity predicted by some observers (see the comments of the Airport Communities Coalition on the draft SEIS, reprinted in the fSEIS) is too little, too late – & too costly. We incline to believe that the ACC projections are much more reasonable than those of the fSEIS: if built, the capital projects will facilitate much more usage of the Airport. But not enough to meet demand, & not enough to justify the cost.

As to *demand*, the outlook (in the absence of a serious & prompt commitment to high-speed rail) is for ever-increasing commercial air travel into & out of the region (defined as the State of Washington, at the smallest).

As to *delay*, the increased capacity at Sea-Tac from the MPU projects will be extraordinarily expensive.

Admittedly, the cost of increased capacity will be less, per passenger, per flight, per air carrier, than the cost of (alleged) decreased 'delay' (however defined), per passenger, per flight, per air carrier. Good numbers are not at hand, because POS & FAA chose to claim in their environmental reviews that there would be no increase in usage of the Airport as the result of the projects. FAA's reviewers of the instant application should derive numbers on the basis of the ACC projections of increased usage and on the basis of the cost of the projects, including costs of borrowed money, & of full mitigation of adverse impacts. We are confident that those numbers will show a shockingly high cost for an increase in capacity. Those numbers should be compared with the numbers for the complete cost of a new 'green field' airport, such as the new Denver facility. Doubtless, a gross disparity in cost-benefit will appear from such a comparison.

The Port's numbers for the total package touch $3 billion (Technical Report 8, MPU project), with not all on-site costs included. Mitigation costs have scarcely been considered by either the Port or FAA. Reviewers should take into account the $2.9 billion in potential third-runway impacts disclosed by the 1997 study of third-runway impacts by Hellmuth & al. ('H-O-K') for the State of Washington. Reviewers should also bear in mind that owing to limitations of time & funding, the H-O-K study did not reach certain significant issues (e.g., school and institutional noise remediation). Reviewers should also bear in mind that in accordance with the parameters of the enabling legislation, the H-O-K study could not encompass important geographical areas – the City of Tacoma, the City of Gig Harbor, the City of Renton, unincorporated areas of King County South of Seattle and North of the Airport, the 'Eastside' communities (Mercer Island, Bellevue, &c.), and most conspicuously our own city, Seattle. (By its own choice, the City of SeaTac chose not to be included, though it is arguably the most-heavily impacted city of them all.) The reviewers should be aware that King County has just started its own study of potential third-runway impacts, focussing on the geographical areas in King County not covered by the H-O-K work. Reviewers should also be

aware that the principal investigator in the H-O-K study (Joseph Pobiner, AICP) is in negotiations with the ACC cities for further mitigation studies. In short, the costs of mitigation are already known to be enormous, & unfunded, while further official studies are in process & in contemplation to learn more about the true amounts required to mitigate the project. The recognized costs can only go UP from $2.9 billion.

Our own view, which is admittedly very preliminary, is that the impacts already defined in the H-O-K study, are rather similar to what a comparable study would find in the geographical areas not encompassed by the H-O-K work. As a first approximation, one may say that the areas studied are the southerly half of the high-impacts zone. The lower annual number of overflights in the northerly half of that zone is in a general way offset by the higher density of human development in the City of Seattle. This means that there are unfunded mitigation needs primarily in the City of Seattle with a price tag in the range of $2.9 billion, before impacts on schools and other institutions are considered. This brings the cost of the MPU expansion into the range of $8 or 9 billion! The pending King County study will offer more information when completed. (And that suggests that the pending PFCs application should be rejected, with leave to resubmit it when the true costs of mitigation have been identified by the King County study & such further studies as the ACC cities may secure.)

A project that has a true cost of $8 or 9 billion, that can provide NO capacity increase on one theory (the *delay* theory, see supra, pp. 7-8) or only a very limited & short-duration capacity increase on the other theory (the *increased-capacity* theory, see supra, pp. 8-9) should not be enabled by a responsible agency. The pending application should be denied.

5. PROCESS ISSUES

5.1 Interest of commenter in process issues. In addition to our interests mentioned in 🕮1.2, supra, p. 1, the Federation has a long-standing interest in citizen-participation issues. One important raison d'etre for each of our member groups is the empowerment of ordinary citizens in dealing with matters that affect them, their homes & businesses, their neighborhoods. Most of the matters that have such effects involve a component of governmental action or inaction. Our members, & thus the Federation itself, are strong advocates of open, full, fair processes for governmental decision-making. We advocate processes that readily permit ordinary citizens to participate knowledgeably. We expect governmental decisions to be made fairly, in the daylight. This expectation even extends to the Federal government.

5.2 Lack of public information; lack of public process. (a) *Too little information provided to public.* We deplore the lack of public information provided by the reviewing

agency about this application. There is really no excuse for failing to provide adequate notification. (No reasonable person would suppose that a one-time publication of a small-print notice in that most obscure of periodicals, the Federal Register, is adequate advice to the public about anything at all.) How many copies of the Port's application were lodged in public libraries, & which ones? How many copies were sent to groups known to be interested in Sea-Tac expansion, such as: Regional Commission on Airport Affairs? Ravenna-Bryant Community Association? North-East District Council? Airport Communities Coalition? Seattle Community Council Federation? (to mention a few groups that have commented on earlier aspects of the third runway, whose names & addresses are already known to the Port & to FAA.)

(b) *Secretive decision-making process.* The decision-making process is too secretive. When will there be a public hearing? No public hearing? Are you serious? Who actually decides? What is the process for review of the recommended decision within the reviewing agency? (None is described in that small-print notice at 63 F.Reg. 13297-8.)

(c) *Appearance of fairness & conflicts of interest.* Will the person who decides on this application be the same person who signed off on the paperwork seeking to justify the MPU projects, such as the EISes and ROD? Or will there be a 'Chinese wall' erected (as there should be) between those who review this application & those in the regional FAA who have been pushing for Sea-Tac expansion & the third runway even before formal inception of plans therefor (as, for example, by implementing the 'four-post plan' for the explicitly stated purpose of facilitating the third runway – even before it was a "gleam in anyone's eye"). Does the agency expect the public or the Congress to have any confidence in a decision on this application if it is made by the very people who have been at the forefront in advocating the third runway & its ancillary projects? Without a 'Chinese wall', this decision-making process would not, were it a proceeding under State authority, meet the 'appearance of fairness' test of our case law.

(d) *Those who will pay excluded from process; no real effort to seek all relevant data.* Here is a proposal to extract hundreds of millions of dollars from the pockets of Airport users, mostly from Seattle, the proposal is issued obscurely, no other governmental bodies are participating, & there is no public hearing. How does the FAA expect to garner all the relevant data, including the views of those who will pay for this project, with such a process?

6. CONCLUSION

6.1 Process inadequate & unfair. The process is inadequate. Public participation should have been sought vigorously. Instead, the process is conducted in virtual secrecy. Our group would never have known of this if not advised of it by others who have time & resources to monitor Airport matters on a daily basis (& they tell us that they would not have known but for subscribing to a very high-cost unofficial newsletter – not a word from any of the governmental parties to the process). One of the three principal proponents of the project is to review the application for (partial) funding of the project. This is fundamentally unfair.

6.2 Financing scheme unsound. Without regard to the desirability of the projects that the application would enable the applicant to fund, the application proposes a financing scheme for construction that is fiscally unsound, & which would result in users of Sea-Tac Airport (many of them from Seattle) paying, over time, far more for these projects than they would pay under a more prudent, fiscally-sound financing scheme.

6-3 The proposed projects should not be built, & no application should be approved that would have the effect of enabling them. The projects proposed by the applicant are extravagant. They will provide little or no financial benefit to Airport users (more from Seattle than any other place) or to commercial air carriers. The purported reason for such projects, 'delay' (undefined), is not accepted by the largest air carriers using the Airport, or any other independent observers. As a capacity-enhancing program, the proposed array of projects is far more expensive than any other alternatives. Costs of construction are disproportionate to any possible benefits; costs of mitigation, though not yet full studied, are enormous – more by an order of magnitude than under any other alternative; financing for the projects remains highly questionable (indeed, dead at this time). Granting the application would be a vain & futile act.

The application should be denied in its entirety.

* * * * *

OMB Approved 2120-0557

U. S. Department of Transportation
Federal Aviation Administration

Passenger Facility Charge (PFC) Application

1. Application Type *(Check all that apply)*

a. Impose PFC Charges
[X] b. Use PFC Revenue
[ ] c. Amend PFC No.: _____

FAA USE ONLY

Date Received: _____ Action: [ ] Approved [ ] Approved in Part [ ] Disapproved

Date of Action: _____

PFC No.: _____

PART I

2. Public Agency Name, Address, and Contact Person

Agency Name: PORT OF SEATTLE
Address: P.O. BOX 68727
City, State, ZIP: SEATTLE, WA 98168
Contact Person: AIDAN N. AMAECHI

3. Airport(s) to Use:

SEATTLE-TACOMA INTERNATIONAL AIRPORT

PART II

4. Charges

a. Airport to Impose:	b. Total Estimated Net PFC Revenue:	c. Level:	d. Proposed Effective Date:	e. Estimated Expiration Date:
SEA-TAC INT'L AIRPORT	$1,086,966,000	[ ] $1.00 [ ] $2.00 [X] $3.00	JUNE 1, 1998	DECEMBER 31, 2022

PART III

5. Attachments *(Check all that Apply)*

	Attached	Submitted with Application Dated:	
a.	[X]	[X] FEBRUARY 6, 1998	Airport Capital Improvement Plan
	[X]	[X] FEBRUARY 6, 1998	Project Information
c.	[X]	[X] FEBRUARY 6, 1998	Air Carrier Consultation Information
d.	[X]	[X] FEBRUARY 6, 1998	Request to Exclude Class(es) of Carriers
e.	[X]	[X] FEBRUARY 6, 1998	Alternative Uses / Projects
f.	[X]	[X] FEBRUARY 6, 1998	Additional Information

6a. Date of Written Notice to Air Carriers: AUGUST 5, 1997

6b. Date of Consultation Meeting with Air Carriers: SEPTEMBER 4, 1997

PART IV

7. With respect to this PFC application I hereby certify as follows:

To the best of my knowledge and belief, all data in this application are true and correct;

This application has been duly authorized by the governing body of the public agency;

The public agency will comply with the attached assurances if the application is approved; and

For those projects for which approval to use PFC revenue is requested, all applicable ALP approvals, airspace determinations, and environmental reviews required by the National Environmental Policy Act have been completed.

a. Typed Name of Authorized Representative: GINA MARIE LINDSEY

b. Title: DIRECTOR, AVIATION DIVISION

c. Telephone Number: (206) 433-5387

d. Fax Number: (206) 431-5912

e. Signature of Authorized Representative: Gina Marie Lindsey

f. Date Signed: 2/6/98

Agency Display of Estimated Burden

Public reporting burden of this collection of information is estimated to average 5-190 hours per response depending on the complexity. Send comments regarding the accuracy of this burden estimate or any other aspect of this information collection to the Office of Management and Budget (OMB), Paperwork Reduction Project 2120-0557, Washington, DC 20503 and to the Department of Transportation, Federal Aviation Administration, Planning Support Branch, ARP-11, 800 Independence Avenue, SW, Washington, DC 20591

FAA Form 5500-1 (6-94)

NSN: 0052-00-815-8000

AR 036286

DATE: October 28, 1997

TO: AAAC Full Committee Members

FROM: Gina Marie Lindsey
Director, Aviation Division

RE: Passenger Facility Charge (PFC) Application No. 4
Air Carrier Certification of Agreement/Disagreement
Summary of substantive comments

On October 2, 1997, we provided you follow-up information clarifying certain issues pursuant to the PFC Application consultation process. We have continued to provide information, as necessary or at air carriers' request, in an effort to fully explain the PFC projects and our plans. In accordance with Part 158.25 (b) (11) (iv), this memorandum provides a summary of substantive comments contained in the certifications of disagreement with the project(s), and the Port's reasons for proceeding in the face of any opposing comments.

AP4-1 Regional ARFF Training Facility.

Comments:

AK, AA, AW, HA, NW - The Port's use of approximately $4.5M of AIP discretionary grants and $1.45M of PFC funds for the development of an off-site regional training project, to be shared by several agencies, will result in an apparent imbalance in overall share of funding sources. We feel the Port's capital contribution should be more appropriately allocated to on-airport use and strongly suggest the Airport Development Fund (ADF) be applied as the Port's share, developing a cost recovery structure to repay capital as well as maintenance and operating costs by fees by other agency users.

DL - "We question the validity of using PFC funds for a facility which is off-airport and which is shared and managed by other non-aviation related users. We also are concerned about the share of the costs that the Port will be expected to pay compared to the other users. We believe there are more appropriate uses for the PFC funds, therefore, an alternative funding source for the ARFF should be sought".

TW- "TWA recognizes that there needs to be a lead agency for planning, financing and management. However, TWA perceives an imbalance in the financing source for the proposed project. As the lead agency, the Port proposes that 80% of the project capital cost be funded directly by Seattle passengers, in the form of PFCs and Sea-Tac AIP discretionary grants. Given the size of the Port's PFC Application and Capital Improvement Program, TWA believes the proposed PFC funds and AIP grants could be better applied to other projects, including the Third Runway".

UA - "United will agree to this non-airport property use of PFC funds if the Port can confirm that there are no other more cost effective means of training the Port's Fire Department. Specifically, the Port should demonstrate that the Capital, Travel, and O&M cost of its proposal is less than the costs of sending the Port fire employees to Portland Airport or other existing ARFF facility".

POS Response:

The need for an adequate ARFF training facility for firefighters at Sea-Tac Airport cannot be over-emphasized. The training of the Port's firefighting personnel has occurred at the Port owned Index "C" facility at Sea-Tac. As required by the FAA, the Port's firefighters must train at an Index "E" level facility, thus the existing facility no longer meets training requirements. In December 1992, the Puget Sound Air Pollution Control Agency (PSAPCA) notified the Port that all training operations at the Sea-Tac ARFF facility would have to end unless the Port applied for and was granted a variance to new air quality regulations. A variance beyond 1995, however, would not be granted. These actions combined to make the need for a new, fully accredited, Index "E" ARFF training facility a matter of urgency. It was determined that two alternatives existed: contract and travel to other facilities, or build our own. There is a limited choice of other airport facilities that we could contract with. Only Boston Logan (with a hydrocarbon facility) and Dallas-Forth Worth (with a Propane facility) have comparable facilities and equipment that meet our training requirements. There were other factors to consider in evaluating with the above two alternatives:

1. A waiver is required from the FAA for Port firefighters to train at a facility other than an Index "E". The FAA will not grant this waiver on a permanent basis. As a matter of fact, our fire personnel have trained at Moses Lake for the past three years under a temporary exception while the new ARFF facility is being built. Otherwise, Moses Lake does not meet the Index "E" requirements.
2. The facility at Boston Logan experiences prevalent wind conditions and on occasions have resulted in training fires being shut down. This situation creates uncertainties regarding the availability of the facility to our firefighters when they arrive for training, and could result in substantial additional costs.
3. None of the facilities are able to provide a long-term user agreement. In fact, LAX is prohibited from sharing their facility because of air quality restrictions.
4. The Dallas-Forth Worth facility is a Propane Index "E" facility. Research suggests that propane fire technology does not allow the use of foam to fight fires. We would only use Dallas-Forth Worth as a last resort.
5. Even if we are successful in contracting to train at another airport facility, there is no guarantee that air pollution requirements in the future would not limit the use of the facilities to local use only, therefore, terminating our use of the facility on short notice.
6. A local consortium, as is the case today, would not be an option in the above circumstance. And depending on where a suitable site is located, it could cost the Port between $7 to $10 million to build its own facility, comparable to the current proposed facility with a 20 year life.

All the factors considered, the preferred alternative was to develop our own Index "E" facility, and for the Port to join a consortium of user groups to build a regional facility that was eligible for Federal funding. The co-location of this facility with the existing Washington Fire Training Academy (FTA), North Bend, Washington, was an ideal choice to achieve the required environmental standards. In addition, the FTA is providing roads, land, utilities, maintenance and administration buildings that will support the new ARFF facility, at no cost. The Port was appointed lead agency for the construction of the facility.

This project is eligible under FAA criteria for AIP and PFC funding. On September 30, 1997, the Port and the State of Washington, as joint recipients, accepted $4.5 million in AIP grants (AIP-51). As indicated earlier, the FAA had made it known that they would only fund a regional training facility. Therefore, this discretionary grant is money accruing to the region that would not have been available for a new Port-owned ARFF facility or for other Port uses. The sponsor's matching share of approximately $1.45 million is all that is being requested in this PFC Application. The remaining costs will be funded by contributions from Boeing, King County and Snohomish County. The contribution of each agency is based on the number of firefighters to be trained each year, and type of training (Index A to Index E). Currently, the proposed funding of the project is allocated as follows:

FAA Regional Discretionary Grant	59.0%
Port of Seattle	21.5%
Boeing	18.6%
King County	0.5%
Snohomish County	0.4%

The current estimated cost of the two alternatives are as follows:

Dallas-Forth Worth/Boston Logan (Tuition, Airfare, Hotel, meals, Overtime)	$212,940 / yr. $4,258,800/ 20 yrs.
North Bend Regional Facility Fuel, Foam, Facility Charge, and Overtime:	$60,000 / yr. $1,215,890/ 20 yrs.

AP4-2 Runway Safety Area Improvements - 16L-16R

Comments:

AK, AA, AW, HA - As with Application #3, we are concerned with the level of expenditure as being beyond "the extent practicable" contemplated in FAR 139.309. The ATA has stated with regard to this project that "requiring an 11,900 foot runway, which is longer than 90% of air carrier runway use, to add full length safety areas where these areas are extremely costly and difficult to construct is neither 'practicable' nor an efficient use of limited safety resources.

DL, UA, TW - Delta and United believe that this project instead of building a third runway – is the best alternative to addressing capacity issues caused by warm weather and pacific Rim operations.

TW - "TWA also notes that the Port indicated the project is justified to provide sufficient runway length for warm weather operations and aircraft type to the Pacific Rim without undue restrictions on operations and load factor. Likewise, the Port lists the same reasoning as a justification for the proposed third runway project. Therefore, assuming the third runway proceeds as planned, this project is repetitive and should be eliminated so that the PFC funds can be applied to other projects".

POS Response:

The Port requested a waiver from safety areas standards on October 31, 1991, a request that was formally denied by the Federal Aviation Administration (FAA), Seattle Airports District Office on November 16, 1991. Thereafter, the Port agreed as a condition for accepting federal grant for the rehabilitation of Runway 16L-34R (AIP-33), to bring the safety areas to FAA standards. The Port attempted to utilize declared distance criteria and explored the use of soft ground arresting materials to mitigate for the short safety areas. The FAA would not approve these measures. The Port is doing everything it can to resolve this issue including the proposal for this project as contained in the PFC application. However, we have made the FAA aware that the Port will be hard pressed to implement this project without adequate discretionary AIP grants.

The justification for this project to provide sufficient runway length for warm weather operations and aircraft type to the Pacific Rim without undue restrictions on operations and load factor was erroneous. That description dates back to the Comprehensive Airspace Update Study and Master Plan that recommended programmatic enhancements to the airfield, including a 600 foot extension of Runway 16R-34L (in additional to the 3rd runway), resulting in the capacity that ensured full payload operations in warm weather conditions. Please be assured that the error has been corrected and will be reflected in final PFC Application. We apologize for any confusion this may have caused.

The federal funding commitments announced recently in conjunction with the LOI, provides for future AIP discretionary grants to augment the $161 million LOI for the third runway. To maximize federal funding, certain project elements and costs related to safety area improvements are being transferred from third runway to Runway 16R-16L safety area improvements, #AP4-2, including :

1) Acquisition of 37 parcels ($7 M) northwest of the Airport needed to relocate 154th Street and Miller Creek This acquisition was originally included as part of third runway costs.
2) South 154th Street relocation ($10.9 M). This road currently exists immediately north of the existing two runways. The relocation of approximately 17,000 feet of this road further north is required in order to allow the safety areas to extend north.
3) Miller Creek Relocation ($1 M). A section of the existing stream and associated wetlands needs to be relocated north and westwards, to allow extension of the safety area to the north.
4) Auburn Mitigation ($8.1 M). This work is required to mitigate wetlands affected by the safety area extenuation, relocation of South 154th Street, and relocation of Miller Creek. Approximately 38 acres of wetland will be developed in Auburn, along the Green River.
5) Safety Area Construction ($7 M).

By moving $23 million out of third runway for a more comprehensive safety area, the scope of the reconfigured Safety Area project is now estimated at $34 million ($8.5 M/Local share). Accordingly, third runway cost is reduced to $529 million from the original $587 million (including the deletion of $35 million in land acquisition). The FAA has committed to providing adequate discretionary AIP nts for this project which scores a higher funding priority than additional runway work.

AP4-3 Passenger Conveyance System

Comments:

AK, AA, AW, DL, HA, TW, UA, US - Port has previously indicated that it would investigate the feasibility of reducing project cost by eliminating two stations and refurbishing existing cars rather than purchasing new ones. We feel that a more prudent amount, given the design concerns previously raised by the airlines and currently being reviewed by the Technical Committee, would be $90 million This additional PFC funding could then be applied to other projects. "Port is urged to continue refining costs and coordinate with the air carriers as a condition for approval".

NW - "It is Northwest's understanding that the Port's current estimate for this project is significantly lower that $126 million. Northwest does not agree with the funding amount since it is our understanding that the Concourse B and C stops will be used for emergency use only and that the train cars will be refurbished rather than replaced".

SW - "The airlines unanimously agree that the system stops at Concourse B and C should be eliminated, therefore reducing the overall project cost to $90 million".

UA - " Although United will agree to this use of PFC funds, the airport's latest summary of its revised proposal – a letter dated October 2, 1997 – fails to note that certain terminal stops are eliminated".

POS Response:

Our best estimate of costs associated with this project is approximately $126 million, of which $5 million has been previously approved for design. As several airlines acknowledged in their certifications, we have been working in consultation with the Airline Technical Committee to further refine the project cost. We are committed to a construction cost not to exceed $121 million. As we approach final design, we continue to evaluate the most austere approach that fulfills the objectives, and brings the cost closer to the $90 million suggested. Without having a final design, reducing the cost to $90 million now could equate to a reduced project scope. A subsequent PFC amendment process or issuance of additional revenue bonds could become necessary once a final design and scope are determined.

AP4-4 Third Runway

Comments:

AK, AA - We still feel that substantially more PFC funding should be allocated to the Third Runway. We endorse and appreciate the efforts made by a number of parties to obtain additional Federal funding and otherwise reduce the impact of receiving a letter of intent from the FAA for less than originally anticipated. "We also recognize and understand concerns stated in your October 2, 1997 memo regarding the financial requirements balancing the overall capital program, but nevertheless believe the runway has a higher

priority than some other projects and should receive greater PFC allocations. We ask that you review this possibility one more time and present a plan for discussion at our November 5, 1997 AAAC meeting".

AW, DL - America West questions the amount of time delay currently experienced at SEA and if a third runway is needed to produce the time savings. Or is the delay the result of factors beyond our control such as weather or insufficient utilization of gate/aircraft operations".

DL - "We are concerned about the physical costs of the project which must ultimately be absorbed by the carriers and the impact on our operational costs at Sea-Tac. Our calculations indicate that our cost of operation will almost double by 2005. Offset of these cost by resultant delay savings questionable for the reasons noted above. The added funding requirements caused by the recently announced shortfall in AIP/LOI grants are costs which will also impact the airlines. Additionally, we are concerned because it appears that the Port has not included all runway related costs in its estimate.....we would urge and support the Port's pursuit of additional PFC funds rather than use of funds which impact landing fees".

UA - United disagrees with the proposed use of PFCs for this project because it believe that the plan is inconsistent with the purposes of the legislation authorizing airports to impose PFCs, would facilitate the Port's improper diversion of federal air transportation funds to a local municipality (revenue diversion), and lacks the required detailed financial plan. United disputes the assertion that the third runway is necessary to eliminate a seven minute average delay at the airport, saying "none of that delay is attributable to the lack of a third runway but a number of other factors. United is of the opinion that the Airport's estimate that a third runway will provide $60 million of operational savings is not supportable using standard business calculations.

United is concerned that approval of the PFC application at this time would encourage a project before the full costs are understood and would create a detrimental revenue diversion precedent. See, e.g., 61 Fed. Reg. 7134, 7144 (noting DOT must withhold approval of PFC if it finds revenue diversion is occurring). United has only had a brief opportunity to review the Inter-local Agreement between the City and Seattle: it received the Agreement for the first time at a presentation to the Airlines on September 4. Nevertheless, United has identified several instances of possible revenue diversion connected to the third runway".

POS Response:

Cognizant of the airlines' comments and concerns, an additional $10 million has been re-deployed to the third runway, making the total PFC allocation $114 million. However, pushing any more PFCs to the third runway may create the need for additional terminal revenue bonds sooner. As stated previously, the LOI at its current level can be augmented by committed and anticipated federal funds announced in conjunction with the LOI.

Regarding United's allegation of revenue diversion, there is no direct connection between the 3rd runway project and commitments entered into with the City of Sea-Tac. Even if the third runway is not implemented, the permitting issues and the settlement of litigation matters would still need to be

resolved. The assumption of street rights-of-way by a newly incorporated City has been standard Washington State practice for more than 40 years, and the practice of the Port compensating jurisdictions for street vacations has been supported by the FAA on numerous previous occasions.

PFC-funded projects, by statute are to preserve or enhance the safety, capacity, or security of the National Air Transportation System; reduce noise, or mitigate airport noise impacts, or increase competition among carriers. The third runway at Sea-Tac is clearly a capacity enhancement project.

While it is true that the occurrence of a clear revenue diversion would prevent the approval of PFCs, the simple unsubstantiated allegation of diversionary practices does not constitute a violation of this statute. United's concern that the Port's payment of fair market value for street rights-of-way will encourage transfer of land from an airport to another municipality in order to extract federal aviation funds is an irresponsible allegation, since it has no relation to the facts of this transaction.

AP4-5 Terminal Expansion - Concourse A

AA, AK, HA - "We have serious concerns and need further justification for the inclusion of the office tower which we understand is estimated at approximately $25 million but not funded by PFCs....to the extent that there was an approval of the design concept presented, the office tower element was not included".

AW - "America West is in agreement with the need for the concourse A expansion. However, we question and have serious concerns of the need for the $25 M office tower complex and cannot justify its proposed development. We are of the opinion, Port staff is extremely fortunate to be able to office in the existing Airport Terminal. The Port is not nor should it be in the real estate business nor should it maintain any intention to do so".

DL - Expansion of the concourse by seven gates and the main terminal areas must be substantiated by quantifiable carrier needs. We request to see documentation supporting these requirements in order to support the project. The Port asserts that a replacement office facility is needed because of the Port's plans to make operational and circulation improvements in the terminal ticket lobby. We question whether there is sufficient airline demand for support space to justify a replacement office project anywhere the size the Port proposes. Construction of the Port office project should be separated from the Concourse A Expansion project and re-justified in conjunction with the project to improve operational and circulation space in the terminal.

POS Response:

While it is included in the scope of work for Concourse A expansion, the Office facility is not eligible for PFC funding, and we have no intention of pursuing PFCs for its construction. However, based on the air carriers' approval during the September 4th, 1997 consultation meeting, we are proceeding with the design of the whole project with the office component as an integral part. We will be reviewing the complete Terminal Facility Program at the November 5th AAAC meeting and on such subsequent dates, as necessary to fully explain this project.

AP4-6 Access Roadway Improvements

United was the only air carrier certifying disagreement with this project citing confusion over the project's estimated costs, and referenced in the carrier's certification letter.

POS Response:

The project scope and costs were revised at the suggestion of the air carriers. The estimated cost was reduced by $10 million to $21.7 million, and the offsetting balance re-allocated to the third runway.

AP4-8 28th/24th Avenue South Arterial.

Comments:

United expressed concerns that this project appeared to be off-airport. US Airways cited the absence of a specific funding plan for the non-PFC portion of the project as the reason for its disagreement. Earlier the FAA had expressed reservation regarding the full eligibility of the project for PFC funding as it appears that a portion of the proposed roadway may not be exclusive airport use.

POS Response:

The Port has decided to drop this project from the PFC Application in consideration of the eligibility issues stated above.

AP-9 Noise Programs

Comments:

UA - " This project is directly related to the Third Runway project. As set out elsewhere, United disagrees with the third runway project and believes these noise costs should be included in the analysis and justification for building the third runway".

POS Response:

Although this project may be indirectly connected to the third runway project as a result of the Puget Sound Regional Council (PSRC) mandates regarding noise levels at Sea-Tac, United's contention that this is a third runway project is simply incorrect. This project provides for the continuation of the Ports current noise insulation program extending to public schools and institutions, particularly the Highline School District, among others, and will be further determined by an on-going Part 150 study. Sea-Tac's noise programs were formulated and impiemented before the idea for the third runway was conceived.

AP4-11 Terminal Infrastructure Upgrade

Comments:

American and US Airways entered their certification of disagreement for this project based on inadequate project information.

POS Response:

The project scope of work consists of replacement, refurbishment and upgrade of lighting fixtures, restores, flooring, wall finishes, ceilings and utility systems in the terminals at Sea-Tac Airport. It also includes the upgrade of the International Arrivals Facility and Security Checkpoints. Selected project elements and justifications are as follows:

Lighting: Upgrading these 30-year old systems will improve energy efficiency, lower operating cost, and provide better illumination.

Restrooms. There are approximately 70 public restrooms throughout the main terminal, concourses, North and South Satellite. Most are 25 years old. Some will require partial upgrades, while others will undergo complete renovation, providing for new finishes and fixtures. The lighting and HVAC systems will be improved, and capacity will be added for future use.

Wall Finishes. Again, the existing plastic laminate panels in the Main Terminal (Esplanade and Mezzanine) and Satellites are over 25 years old. Many of the panels are worn and/or damaged, others that have been replaced over the years are mismatched in color because the original colors are no longer available. These will be replaced with the latest, improved technology and materials, and will be more durable and easier to maintain.

International Arrivals Facility. New technology and changing requirements continue to drive these improvements needed to expedite processing of international passengers and enhance customer service. For Sea-Tac, such improvements are necessary to remain competitive with other gateway airports. This project is part of the on-going efforts to upgrade infrastructure at South Satellite, and the airports commitment to the Gateway Sea-Tac Program which won Vice President Al Gore's Hammer Award in 1997.

Utility System. This includes ongoing efforts to improve aging basic terminal utilities, including electrical, HVAC, water and sewer.

Again, this project is for *Impose Only* and is subject to further scope definition, design and the necessary review before the use of PFCs would apply.

AP4-12 Combined Communication Center

In their response a number of carriers disagreed or withheld certification until additional information on this project is made available by the Port. Alaska states, "The scope of this work is not at all defined and it is difficult to state a position".

POS Response:

We have better defined this project since the September 4th consultation meeting. The Port is conducting a Communications Master Plan intended for integrating existing and future communication systems throughout the airport. The vision for the new communications infrastructure is to develop a system that can be shared by many, and integrate the separate communications systems into a coherent whole. The scope of work envisioned in the Master Plan includes:

1. Design and construction of a new Premises Distribution System (PDS) including cabling infrastructure and network components. The PDS will provide the "backbone" for future communications projects such as Common Use Terminal Equipment (CUTE), Multi-user Flight Information Display System (MUFIDS), and shared tenant services.

2. Design and construction of a new combined communications Center, replacing the four existing communications centers at the airport. This will reduce redundancies of equipment and operations. The new center will feature elements such as:
   - New Airport -wide paging system, including ADA visual paging.
   - New Airport-wide MUFIDS
   - Control and monitor new airport Signage, including way-finding and multi-lingual kiosks.
   - Accommodate airport-wide CUTE system expansion
   - New CUTE supported operations system including gate management and baggage reconciliation system.
   - New airport integrated communications/computer room.

Justifications.

The communications infrastructure, like other infrastructure components of Sea-Tac International Airport, needs upgrading to meet current and future demands. In addition, numerous projects with communications components, have been identified for future implementation. The integration of these components would reduce redundancy in equipment, management and infrastructure.

For instance, by combining the four existing centers, the opportunity exists to more efficiently utilize staffing, and the need for each communications centers to have separate equipment and resources is eliminated.

Anticipated benefits include reduction in both installation and maintenance costs. By eliminating the proliferation of systems, there would be only one network to install and maintain. And by integrating systems (e.g. MUFIDS, CUTE, gate management, etc.) the efficient entry, management and use of information is greatly enhanced. This project is eligible under FAA criteria to promote safety and competition.

AP-13 ACCESS ROADWAY UPGRADE

Again, a number of air carriers disagreed or withheld certification of agreement or disagreement until additional information is made available on this project. TWA is unclear as to any distinction between this $86.3 million project and the previous Access Roadway Improvement project #AP4-6, and says "The project appears repetitive".

POS Response

This project is distinct from the Access Roadway Improvements, however, and to maintain this distinction and avoid further confusion , the Access Roads Upgrade #AP4-13 is being renamed **Landside Master Plan Projects.**

The scope of work consists of road expansion to the North Terminal, a new south access roadway. The project elements and cost figures are as follows:

North Terminal Expansion	
• New road on grade (2-3 mile with 4-6 lanes)	$12.7 M
• New elevated roadway (.5 mile, 5- 6 lanes)	$43.0 M
• New interchange at South 170th	$ 8.4 M
• New North overpass (.5 mile, 4 lanes)	$ 7.1 M
New South Access Roadway (South 188th Street to Terminal)	
• New road on grade (1.5 miles, 4-6 lanes)	$11.5 M
• New elevated roadway	$ 3.6 M
Total estimated costs	$86.3 M

The project will greatly improve vehicular access and circulation at the Airport Main Terminal, cargo and hanger areas, and major connecting arterial.

This concludes our formal response to your certifications. Please be assured that the changes and any new information discussed herein will be incorporated into the final PFC Application. Meanwhile, please feel free to contact me at (206) 433-5387 or Michael Feldman at (206) 439-7706, should you have further questions.

cc: T. Brown - Air Transport Association
W. Ferrell - FAA, NWM Region
W. Bryant - Seattle Airports District Office

ATA News

Airlines Sue FAA

ATA Files Suit Over New York Train

Washington, D.C. March 27, 1998 -- The Air Transport Association (ATA) filed suit today against the Federal Aviation Administration (FAA) in the U.S. Court of Appeals for the District of Columbia circuit. ATA contends that the FAA improperly approved the application of the Port Authority of New York and New Jersey to use funds from three New York City airports to build a $1.25 billion light rail system.

"Federal law is clear," said Roger Cohen, ATA's managing director for local and state government affairs. "Money generated on an airport can only be used to improve the air transport system. It cannot be used for non-aviation projects such as local transit systems. This closed-loop financing system is the reason that the United States has the most developed and extensive air transport system in the world. No local tax dollars are used to pay for the airport, so federal law states that airport funds cannot be used to fund local, off-airport, projects."

ATA filed suit after the FAA approved an application to use Passenger Facility Charges (PFCs) collected from Kennedy, La Guardia and Newark airports to build a train system which would connect Kennedy airport to the New York City subway system. Three and one third miles of the train would be located off airport grounds.

"We appreciate the guidance of concerned area leaders like Assemblyman Daniel L. Feldman and Assemblywoman Audrey Pheffer because this unnecessary project will consume over $1 billion in airport money that should be used to improve the three New York airports," said Cohen. "There are dozens of pressing projects at all three airports that need airport generated funds."

In addition to the airlines' legal opposition, a broad local coalition also opposes the project for a variety of reasons including the major disruption of the Van Wyck Expressway. The Port Authority plan calls for an elevated railway above the Van Wyck and construction would tie traffic in knots for years. The low ridership projections of the train does not justify mammoth disruption to this key transportation route.

"This raid on airport funds cannot be allowed to stand or it could undermine the entire system and lead to local transit systems being built around the country with PFCs paid by airline passengers," continued Cohen. "We are hopeful that the federal court will quickly hear this case and strike down the FAA's illegal approval of the Port Authority's PFC application."

Founded in 1936, ATA is the nation's oldest and largest airline trade association. It has 22 U.S. and 5 associate (international) airlines that carry over 95% of all the passenger and cargo traffic in the United States.

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Air Transport Association of America. 1301 Pennsylvania Avenue, NW, Suite 1100, Washington, DC 20004-1707 USA.

U.S. Department
of Transportation

Federal Aviation
Administration

Advisory Circular

Subject: HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS	Date: 5/1/97 Initiated by: AAS-310 and APP-600	AC No: 150/5200-33 Change:

1. PURPOSE. This advisory circular (AC) provides guidance on locating certain land uses having the potential to attract hazardous wildlife to or in the vicinity of public-use airports. It also provides guidance concerning the placement of new airport development projects (including airport construction, expansion, and renovation) pertaining to aircraft movement in the vicinity of hazardous wildlife attractants. Appendix 1 provides definitions of terms used in this AC.

2. APPLICATION. The standards, practices, and suggestions contained in this AC are recommended by the Federal Aviation Administration (FAA) for use by the operators and sponsors of all public-use airports. In addition, the standards, practices, and suggestions contained in this AC are recommended by the FAA as guidance for land use planners, operators, and developers of projects, facilities, and activities on or near airports.

3. BACKGROUND. Populations of many species of wildlife have increased markedly in the last few years. Some of these species are able to adapt to human-made environments, such as exist on and around airports. The increase in wildlife populations, the use of larger turbine engines, the increased use of twin-engine aircraft, and the increase in air-traffic, all combine to increase the risk, frequency, and potential severity of wildlife-aircraft collisions.

Most public-use airports have large tracts of open, unimproved land that are desirable for added margins of safety and noise mitigation. These areas can present potential hazards to aviation because they often attract hazardous wildlife. During the past century, wildlife-aircraft strikes have resulted in the loss of hundreds of lives world-wide, as well as billions of dollars worth of aircraft damage. Hazardous wildlife attractants near airports could jeopardize future airport expansion because of safety considerations.

DAVID L. BENNETT
Director, Office of Airport Safety and Standards

SECTION 1. HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS.

1-1. TYPES OF HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS. Human-made or natural areas, such as poorly-drained areas, retention ponds, roosting habitats on buildings, landscaping, putrescible-waste disposal operations, wastewater treatment plants, agricultural or aquacultural activities, surface mining, or wetlands, may be used by wildlife for escape, feeding, loafing, or reproduction. Wildlife use of areas within an airport's approach or departure airspace, aircraft movement areas, loading ramps, or aircraft parking areas may cause conditions hazardous to aircraft safety.

All species of wildlife can pose a threat to aircraft safety. However, some species are more commonly involved in aircraft strikes than others. Table 1 lists the wildlife groups commonly reported as being involved in damaging strikes to U.S. aircraft from 1993 to 1995.

Table 1. Wildlife Groups Involved in Damaging Strikes to Civilian Aircraft, USA, 1993-1995.

Wildlife Groups	Percent involvement in reported damaging strikes
Gulls	28
Waterfowl	28
Raptors	11
Doves	6
Vultures	5
Blackbirds-Starlings	5
Corvids	3
Wading birds	3
Deer	11
Canids	1

1-2. LAND USE PRACTICES. Land use practices that attract or sustain hazardous wildlife populations on or near airports can significantly increase the potential for wildlife-aircraft collisions. FAA recommends against land use practices, within the siting criteria stated in 1-3, that attract or sustain populations of hazardous wildlife within the vicinity of airports or cause movement of hazardous wildlife onto, into, or across the approach or departure airspace, aircraft movement area, loading ramps, or aircraft parking area of airports.

Airport operators, sponsors, planners, and land use developers should consider whether proposed land uses, including new airport development projects, would increase the wildlife hazard. Caution should be exercised to ensure that land use practices on or near airports do not enhance the attractiveness of the area to hazardous wildlife.

1-3. SITING CRITERIA. FAA recommends separations when siting any of the wildlife attractants mentioned in Section 2 or when planning new airport development projects to accommodate aircraft movement. The distance between an airport's aircraft movement areas, loading ramps, or aircraft parking areas and the wildlife attractant should be as follows:

a. Airports serving piston-powered aircraft. A distance of 5,000 feet is recommended.

b. Airports serving turbine-powered aircraft. A distance of 10,000 feet is recommended.

c. Approach or Departure airspace. A distance of 5 statute miles is recommended, if the wildlife attractant may cause hazardous wildlife movement into or across the approach or departure airspace.

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SECTION 2. LAND USES THAT ARE INCOMPATIBLE WITH SAFE AIRPORT OPERATIONS.

2-1. GENERAL. The wildlife species and the size of the populations attracted to the airport environment are highly variable and may depend on several factors, including land-use practices on or near the airport. It is important to identify those land use practices in the airport area that attract hazardous wildlife. This section discusses land use practices known to threaten aviation safety.

2-2. PUTRESCIBLE-WASTE DISPOSAL OPERATIONS. Putrescible-waste disposal operations are known to attract large numbers of wildlife that are hazardous to aircraft. Because of this, these operations, when located within the separations identified in the sitting criteria in 1-3 are considered incompatible with safe airport operations.

FAA recommends against locating putrescible-waste disposal operations inside the separations identified in the siting criteria mentioned above. FAA also recommends against new airport development projects that would increase the number of aircraft operations or that would accommodate larger or faster aircraft, near putrescible-waste disposal operations located within the separations identified in the siting criteria in 1-3.

2-3. WASTEWATER TREATMENT FACILITIES. Wastewater treatment facilities and associated settling ponds often attract large numbers of wildlife that can pose a threat to aircraft safety when they are located on or near an airport.

a. **New wastewater treatment facilities.** FAA recommends against the construction of new wastewater treatment facilities or associated settling ponds within the separations identified in the siting criteria in 1-3. During the siting analysis for wastewater treatment facilities, the potential to attract hazardous wildlife should be considered if an airport is in the vicinity of a proposed site. Airport operators should voice their opposition to such sitings. In addition, they should consider the existence of wastewater treatment facilities when evaluating proposed sites for new airport development projects and avoid such sites when practicable.

b. **Existing wastewater treatment facilities.** FAA recommends correcting any wildlife hazards arising from existing wastewater treatment facilities located on or near airports without delay, using appropriate wildlife hazard mitigation techniques. Accordingly, measures to minimize hazardous wildlife attraction should be developed in consultation with a wildlife damage management biologist. FAA recommends that wastewater treatment facility operators incorporate appropriate wildlife hazard mitigation techniques into their operating practices. Airport operators also should encourage those operators to incorporate these mitigation techniques in their operating practices.

c. **Artificial marshes.** Waste-water treatment facilities may create artificial marshes and use submergent and emergent aquatic vegetation as natural filters. These artificial marshes may be used by some species of flocking birds, such as blackbirds and waterfowl, for breeding or roosting activities. FAA recommends against establishing artificial marshes within the separations identified in the siting criteria stated in 1-3.

d. **Wastewater discharge and sludge disposal.** FAA recommends against the discharge of wastewater or sludge on airport property. Regular spraying of wastewater or sludge disposal on unpaved areas may improve soil moisture and quality. The resultant turf growth requires more frequent mowing, which in turn may mutilate or flush insects or small animals and produce straw. The maimed or flushed organisms and the straw can attract hazardous wildlife and jeopardize aviation safety. In addition, the improved turf may attract grazing wildlife such as deer and geese.

Problems may also occur when discharges saturate unpaved airport areas. The resultant soft, muddy conditions can severely restrict or prevent emergency vehicles from reaching accident sites in a timely manner.

e. **Underwater waste discharges.** The underwater discharge of any food waste, e.g., fish processing offal, that could attract scavenging wildlife is not recommended within the separations identified in the siting criteria in 1-3.

2-4. WETLANDS.

a. Wetlands on or near Airports.

(1) Existing Airports. Normally, wetlands are attractive to many wildlife species. Airport operators with wetlands located on or nearby airport property should be alert to any wildlife use or habitat changes in these areas that could affect safe aircraft operations.

(2) Airport Development. When practicable, the FAA recommends siting new airports using the separations identified in the siting criteria in 1-3. Where alternative sites are not practicable or when expanding existing airports in or near wetlands, the wildlife hazards should be evaluated and minimized through a wildlife management plan prepared by a wildlife damage management biologist, in consultation with the U.S. Fish and Wildlife Service (USFWS) and the U.S. Army Corps of Engineers (COE).

NOTE: If questions exist as to whether or not an area would qualify as a wetland, contact the U.S. Army COE, the Natural Resource Conservation Service, or a wetland consultant certified to delineate wetlands.

b. Wetland mitigation. Mitigation may be necessary when unavoidable wetland disturbances result from new airport development projects. Wetland mitigation should be designed so it does not create a wildlife hazard.

(1) FAA recommends that wetland mitigation projects that may attract hazardous wildlife be sited outside of the separations identified in the siting criteria in 1-3. Wetland mitigation banks meeting these siting criteria offer an ecologically sound approach to mitigation in these situations.

(2) Exceptions to locating mitigation activities outside the separations identified in the siting criteria in 1-3 may be considered if the affected wetlands provide unique ecological functions, such as critical habitat for threatened or endangered species or ground water recharge. Such mitigation must be compatible with safe airport operations. Enhancing such mitigation areas to attract hazardous wildlife should be avoided. On-site mitigation plans may be reviewed by the FAA to determine compatibility with safe airport operations.

(3) Wetland mitigation projects that are needed to protect unique wetland functions (see 2-4.b.(2)), and that must be located in the siting criteria in 1-3 should be identified and evaluated by a wildlife damage management biologist before implementing the mitigation. A wildlife damage management plan should be developed to reduce the wildlife hazards.

NOTE: AC 150/5000-3, *Address List for Regional Airports Division and Airports District/Field Offices*, provides information on the location of these offices.

2-5. DREDGE SPOIL CONTAINMENT AREAS. FAA recommends against locating dredge spoil containment areas within the separations identified in the siting criteria in 1-3, if the spoil contains material that would attract hazardous wildlife.

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SECTION 3. LAND USES THAT MAY BE COMPATIBLE WITH SAFE AIRPORT OPERATIONS.

3-1. GENERAL. Even though they may, under certain circumstances, attract hazardous wildlife, the land use practices discussed in this section have flexibility regarding their location or operation and may even be under the airport operator's or sponsor's control. In general, the FAA does not consider the activities discussed below as hazardous to aviation if there is no apparent attraction to hazardous wildlife, or wildlife hazard mitigation techniques are implemented to deal effectively with any wildlife hazard that may arise.

3-2. ENCLOSED WASTE FACILITIES. Enclosed trash transfer stations or enclosed waste handling facilities that receive garbage indoors; process it via compaction, incineration, or similar manner; and remove all residue by enclosed vehicles, generally would be compatible, from a wildlife perspective, with safe airport operations, provided they are not located on airport property or within the runway protection zone (RPZ). No putrescible-waste should be handled or stored outside at any time, for any reason, or in a partially enclosed structure accessible to hazardous wildlife.

Partially enclosed operations that accept putrescible-waste are considered to be incompatible with safe airport operations. FAA recommends these operations occur outside the separations identified in the siting criteria in 1-3.

3-3. RECYCLING CENTERS. Recycling centers that accept previously sorted, non-food items such as glass, newspaper, cardboard, or aluminum are, in most cases, not attractive to hazardous wildlife.

3-4. COMPOSTING OPERATIONS ON AIRPORTS. FAA recommends against locating composting operations on airports. However, when they are located on an airport, composting operations should not be located closer than the greater of the following distances: 1,200 feet from any aircraft movement area, loading ramp, or aircraft parking space; or the distance called for by airport design requirements. This spacing is intended to prevent material, personnel, or equipment from penetrating any Obstacle Free Area (OFA), Obstacle Free Zone (OFZ), Threshold Siting Surface (TSS), or Clearway (see AC 150/5300-13, *Airport Design*). On-airport disposal of compost by-products is not recommended for the reasons stated in 2-3.d.

a. Composition of material handled. Components of the compost should never include any municipal solid waste. Non-food waste such as leaves, lawn clippings, branches, and twigs generally are not considered a wildlife attractant. Sewage sludge, wood-chips, and similar material are not municipal solid wastes and may be used as compost bulking agents.

b. Monitoring on-airport composting operations. If composting operations are to be located on airport property, FAA recommends that the airport operator monitor composting operations to ensure that steam or thermal rise does not affect air traffic in any way. Discarded leaf disposal bags or other debris must not be allowed to blow onto any active airport area. Also, the airport operator should reserve the right to stop any operation that creates unsafe, undesirable, or incompatible conditions at the airport.

3-5. ASH DISPOSAL. Fly ash from resource recovery facilities that are fired by municipal solid waste, coal, or wood, is generally considered not to be a wildlife attractant because it contains no putrescible matter. FAA generally does not consider landfills accepting only fly ash to be wildlife attractants, if those landfills: are maintained in an orderly manner; admit no putrescible-waste of any kind; and are not co-located with other disposal operations.

Since varying degrees of waste consumption are associated with general incineration, FAA classifies the ash from general incinerators as a regular waste disposal by-product and, therefore, a hazardous wildlife attractant.

3-6. CONSTRUCTION AND DEMOLITION (C&D) DEBRIS LANDFILLS. C&D debris (Class IV) landfills have visual and operational characteristics similar to putrescible-waste disposal sites. When co-located with putrescible-waste disposal operations, the probability of hazardous wildlife attraction to C&D landfills increases because of the similarities between these disposal activities.

FAA generally does not consider C&D landfills to be hazardous wildlife attractants, if those landfills: are maintained in an orderly manner; admit no putrescible-waste of any kind; and are not co-located with other disposal operations.

3-7. WATER DETENTION OR RETENTION PONDS. The movement of storm water away from runways, taxiways, and aprons is a normal function on most airports and is necessary for safe aircraft operations. Detention ponds hold storm water for short periods, while retention ponds hold water indefinitely. Both types of ponds control runoff, protect water quality, and can attract hazardous wildlife. Retention ponds are more attractive to hazardous wildlife than detention ponds because they provide a more reliable water source.

To facilitate hazardous wildlife control, FAA recommends using steep-sided, narrow, linearly-shaped, rip-rap lined, water detention basins rather than retention basins. When possible, these ponds should be placed away from aircraft movement areas to minimize aircraft-wildlife interactions. All vegetation in or around detention or retention basins that provide food or cover for hazardous wildlife should be eliminated.

If soil conditions and other requirements allow, FAA encourages the use of underground storm water infiltration systems, such as French drains or buried rock fields, because they are less attractive to wildlife.

3-8. LANDSCAPING. Wildlife attraction to landscaping may vary by geographic location. FAA recommends that airport operators approach landscaping with caution and confine it to airport areas not associated with aircraft movements. All landscaping plans should be reviewed by a wildlife damage management biologist. Landscaped areas should be monitored on a continuing basis for the presence of hazardous wildlife. If hazardous wildlife is detected, corrective actions should be implemented immediately.

3-9. GOLF COURSES. Golf courses may be beneficial to airports because they provide open space that can be used for noise mitigation or by aircraft during an emergency. On-airport golf courses may also be a concurrent use that provides income to the airport.

Because of operational and monetary benefits, golf courses are often deemed compatible land uses on or near airports. However, waterfowl (especially Canada geese) and some species of gulls are attracted to the large, grassy areas and open water found on most golf courses. Because waterfowl and gulls occur throughout the U.S., FAA recommends that airport operators exercise caution and consult with a wildlife damage management biologist when considering proposals for golf course construction or expansion on or near airports. Golf courses should be monitored on a continuing basis for the presence of hazardous wildlife. If hazardous wildlife is detected, corrective actions should be implemented immediately.

3-10. AGRICULTURAL CROPS. As noted above, airport operators often promote revenue-generating activities to supplement an airport's financial viability. A common concurrent use is agricultural crop production. Such use may create potential hazards to aircraft by attracting wildlife. Any proposed on-airport agricultural operations should be reviewed by a wildlife damage management biologist. FAA generally does not object to agricultural crop production on airports when: wildlife hazards are not predicted; the guidelines for the airport areas specified in 3-10.a-f. are observed; and the agricultural operation is closely monitored by the airport operator or sponsor to ensure that hazardous wildlife are not attracted.

NOTE: If wildlife becomes a problem due to on-airport agricultural operations, FAA recommends undertaking the remedial actions described in 3-10.f.

a. Agricultural activities adjacent to runways. To ensure safe, efficient aircraft operations, FAA recommends that no agricultural activities be conducted in the Runway Safety Area (RSA), OFA, and the OFZ (see AC 150/5300-13).

b. Agricultural activities in areas requiring minimum object clearances. Restricting agricultural operations to areas outside the RSA, OFA, OFZ, and Runway Visibility Zone (RVZ) (see AC 150/5300-13) will normally provide the minimum object clearances required by FAA's airport design standards. FAA recommends that farming operations not be permitted within areas critical to the proper operation of localizers, glide slope indicators, or other visual or electronic navigational aids. Determinations of minimal areas that must be kept free of farming operations should be made on a case-by-case basis. If navigational aids are present, farm leases for on-airport agricultural activities should be coordinated with FAA's Airway Facilities Division, in accordance with FAA Order 6750.16, *Siting Criteria for Instrument Landing Systems.*

NOTE: Crop restriction lines conforming to the dimensions set forth in Table 2 will normally provide the minimum object clearance required by

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FAA airport design standards. The presence of navigational aids may require expansion of the restricted area.

c. **Agricultural activities within an airport's approach areas.** The RSA, OFA, and OFZ all extend beyond the runway shoulder and into the approach area by varying distances. The OFA normally extends the farthest and is usually the controlling surface. However, for some runways, the TSS (see AC 150/5300-13, Appendix 2) may be more controlling than the OFA. The TSS may not be penetrated by any object. The minimum distances shown in Table 2 are intended to prevent penetration of the OFA, OFZ, or TSS by crops or farm machinery.

NOTE: Threshold Siting standards should not be confused with the approach areas described in Title 14, Code of Federal Regulations, Part 77, (14 CFR 77), *Objects Affecting Navigable Airspace.*

d. **Agricultural activities between intersecting runways.** FAA recommends that no agricultural activities be permitted within the RVZ. If the terrain is sufficiently below the runway elevation, some types of crops and equipment may be acceptable. Specific determinations of what is permissible in this area requires topographical data. For example, if the terrain within the RVZ is level with the runway ends, farm machinery or crops may interfere with a pilot's line-of-sight in the RVZ.

e. **Agricultural activities in areas adjacent to taxiways and aprons.** Farming activities should not be permitted within a taxiway's OFA. The outer portions of aprons are frequently used as a taxilane and farming operations should not be permitted within the OFA. Farming operations should not be permitted between runways and parallel taxiways.

f. **Remedial actions for problematic agricultural activities.** If a problem with hazardous wildlife develops, FAA recommends that a professional wildlife damage management biologist be contacted and an on-site inspection be conducted. The biologist should be requested to determine the source of the hazardous wildlife attraction and suggest remedial action. Regardless of the source of the attraction, prompt remedial actions to protect aviation safety are recommended. The remedial actions may range from choosing another crop or farming technique to complete termination of the agricultural operation.

Whenever on-airport agricultural operations are stopped due to wildlife hazards or annual harvest, FAA recommends plowing under all crop residue and harrowing the surface area smooth. This will reduce or eliminate the area's attractiveness to foraging wildlife. FAA recommends that this requirement be written into all on-airport farm use contracts and clearly understood by the lessee.

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Table 2. Minimum Distances Between Certain Airport Features And Any On-Airport Agriculture Crops.

Aircraft Approach Category And Design Group [1]	Distance In Feet From Runway Centerline To Crop		Distance In Feet From Runway End To Crop		Distance In Feet From Centerline Of Taxiway To Crop	Distance In Feet From Edge Of Apron To Crop
	Visual & ≥ ¾ mile	< ¾ mile	Visual & ≥ ¾ mile	< ¾ mile		
Category A & B Aircraft						
Group I	200 [2]	400	300 [3]	600	45	40
Group II	250	400	400 [3]	600	66	58
Group III	400	400	600	800	93	81
Group IV	400	400	1,000	1,000	130	113
Category C, D & E Aircraft						
Group I	530 [3]	575 [3]	1,000	1,000	45	40
Group II	530 [3]	575 [3]	1,000	1,000	66	58
Group III	530 [3]	575 [3]	1,000	1,000	93	81
Group IV	530 [3]	575 [3]	1,000	1,000	130	113
Group V	530 [3]	575 [3]	1,000	1,000	160	138
Group VI	530 [3]	575 [3]	1,000	1,000	193	167

1. Design Groups are based on wing span, and Category depends on approach speed of the aircraft.

Group I: Wing span up to 49 ft.
Group II: Wing span 49ft. up to 78 ft.
Group III: Wing span 79 ft. up to 117 ft.
Group IV: Wing span 118 ft. up to 170 ft.
Group V: Wing span 171 ft. up to 213 ft.
Group VI: Wing span 214 ft. up to 261 ft.

Category A: Speed less than 91 knots
Category B: Speed 91 knots up to 120 knots
Category C: Speed 121 knots up to 140 knots
Category D: Speed 141 knots up to 165 knots
Category E: Speed 166 knots or more

2. If the runway will only serve small airplanes (12,500 lb. And under) in Design Group I, this dimension may be reduced to 125 feet; however, this dimension should be increased where necessary to accommodate visual navigational aids that may be installed. For example farming operations should not be allowed within 25 feet of a Precision Approach Path Indicator (PAPI) light box.

3. These dimensions reflect the TSS as defined in AC 150/5300-13, Appendix 2. The TSS cannot be penetrated by any object. Under these conditions, the TSS is more restrictive than the OFA, and the dimensions shown here are to prevent penetration of the TSS by crops and farm machinery.

SECTION 4. NOTIFICATION OF FAA ABOUT HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AN AIRPORT.

4-1. GENERAL. Airport operators, land developers, and owners should notify the FAA in writing of known or reasonably foreseeable land use practices on or near airports that either attract or may attract hazardous wildlife. This section discusses those notification procedures.

4-2. NOTIFICATION REQUIREMENTS FOR WASTE DISPOSAL SITE OPERATIONS. The Environmental Protection Agency (EPA) requires any operator proposing a new or expanded waste disposal operation within 5 statute miles of a runway end to notify the appropriate FAA Regional Airports Division Office and the airport operator of the proposal (40 CFR 258. *Criteria for Municipal Solid Waste Landfills*, section 258.10, *Airport Safety*). The EPA also requires owners or operators of new municipal solid waste landfill (MSWLF) units, or lateral expansions of existing MSWLF units that are located within 10,000 feet of any airport runway end used by turbojet aircraft or within 5,000 feet of any airport runway end used only by piston-type aircraft, to demonstrate successfully that such units are not hazards to aircraft.

a. **Timing of Notification.** When new or expanded MSWLFs are being proposed near airports, MSWLF operators should notify the airport operator and the FAA of this as early as possible pursuant to 40 CFR Part 258. Airport operators should encourage the MSWLF operators to provide notification as early as possible.

NOTE: AC 150/5000-3 provides information on these FAA offices.

b. **Putrescible-Waste Facilities.** In their effort to satisfy the EPA requirement, some putrescible-waste facility proponents may offer to undertake experimental measures to demonstrate that their proposed facility will not be a hazard to aircraft. To date, the ability to sustain a reduction in the numbers of hazardous wildlife to levels that existed before a putrescible-waste landfill began operating has not been successfully demonstrated. For this reason, demonstrations of experimental wildlife control measures should not be conducted in active aircraft operations areas.

c. **Other Waste Facilities.** To claim successfully that a waste handling facility sited within the separations identified in the siting criteria in 1-3 does not attract hazardous wildlife and does not threaten aviation, the developer must establish convincingly that the facility will not handle putrescible material other than that as outlined in 3-2. FAA requests that waste site developers provide a copy of an official permit request verifying that the facility will not handle putrescible material other than that as outlined in 3-2. FAA will use this information to determine if the facility will be a hazard to aviation.

4-3. NOTIFYING FAA ABOUT OTHER WILDLIFE ATTRACTANTS. While U. S. EPA regulations require landfill owners to provide notification, no similar regulations require notifying FAA about changes in other land use practices that can create hazardous wildlife attractants. Although it is not required by regulation, FAA requests those proposing land use changes such as those discussed in 2-3, 2-4, and 2-5 to provide similar notice to the FAA as early in the development process as possible. Airport operators that become aware of such proposed development in the vicinity of their airports should also notify the FAA. The notification process gives the FAA an opportunity to evaluate the effect of a particular land use change on aviation safety.

The land use operator or project proponent may use FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, or other suitable documents to notify the appropriate FAA Regional Airports Division Office.

It is helpful if the notification includes a 15-minute quadrangle map of the area identifying the location of the proposed activity. The land use operator or project proponent should also forward specific details of the proposed land use change or operational change or expansion. In the case of solid waste landfills, the information should include the type of waste to be handled, how the waste will be processed, and final disposal methods.

4-5. FAA REVIEW OF PROPOSED LAND USE CHANGES.

a. The FAA discourages the development of facilities discussed in section 2 that will be located within the 5,000/10,000-foot criteria in 1-3.

b. For projects which are located outside the 5,000/10,000-foot criteria, but within 5 statute miles of the airport's aircraft movement areas, loading ramps, or aircraft parking areas, FAA may review development plans, proposed land use changes, operational changes, or wetland mitigation plans to determine if such changes present potential wildlife hazards to aircraft operations. Sensitive airport areas will be identified as those that lie under or next to approach or departure airspace. This brief examination should be sufficient to determine if further investigation is warranted.

c. Where further study has been conducted by a wildlife damage management biologist to evaluate a site's compatibility with airport operations, the FAA will use the study results to make its determination.

d. FAA will discourage the development of any excepted sites (see Section 3) within the criteria specified in 1-3 if a study shows that the area supports hazardous wildlife species.

4-6. AIRPORT OPERATORS. Airport operators should be aware of proposed land use changes, or modification of existing land uses, that could create hazardous wildlife attractants within the separations identified in the siting criteria in 1-3. Particular attention should be given to proposed land uses involving creation or expansion of waste water treatment facilities, development of wetland mitigation sites, or development or expansion of dredge spoil containment areas.

a. **AIP-funded airports.** FAA recommends that operators of AIP-funded airports, to the extent practicable, oppose off-airport land use changes or practices (within the separations identified in the siting criteria in 1-3) that may attract hazardous wildlife. Failure to do so could place the airport operator or sponsor in noncompliance with applicable grant assurances. FAA recommends against the placement of airport development projects pertaining to aircraft movement in the vicinity of hazardous wildlife attractants. Airport operators, sponsors, and planners should identify wildlife attractants and any associated wildlife hazards during any planning process for new airport development projects.

b. **Additional coordination.** If, after the initial review by FAA, questions remain about the existence of a wildlife hazard near an airport, the airport operator or sponsor should consult a wildlife damage management biologist. Such questions may be triggered by a history of wildlife strikes at the airport or the proximity of the airport to a wildlife refuge, body of water, or similar feature known to attract wildlife.

c. **Specialized assistance.** If the services of a wildlife damage management biologist are required, FAA recommends that land use developers or the airport operator contact the appropriate state director of the United States Department of Agriculture/Animal Damage Control (USDA/ADC), or a consultant specializing in wildlife damage management. Telephone numbers for the respective USDA/ADC state offices may be obtained by contacting USDA/ADC's Operational Support Staff, 4700 River Road, Unit 87, Riverdale, MD, 20737-1234, Telephone (301) 734-7921, Fax (301) 734-5157. The ADC biologist or consultant should be requested to identify and quantify wildlife common to the area and evaluate the potential wildlife hazards.

d. **Notifying airmen.** If an existing land use practice creates a wildlife hazard, and the land use practice or wildlife hazard cannot be immediately eliminated, the airport operator should issue a Notice to Airmen (NOTAM) and encourage the land owner or manager to take steps to control the wildlife hazard and minimize further attraction.

AR 036309

APPENDIX 1. DEFINITIONS OF TERMS USED IN THIS ADVISORY CIRCULAR.

1. GENERAL. This appendix provides definitions of terms used throughout this AC.

a. **Aircraft movement area.** The runways, taxiways, and other areas of an airport which are used for taxiing or hover taxiing, air taxiing, takeoff, and landing of aircraft exclusive of loading ramps and aircraft parking areas.

b. **Airport operator.** The operator (private or public) or sponsor of a public use airport.

c. **Approach or departure airspace.** The airspace, within 5 statute miles of an airport, through which aircraft move during landing or takeoff.

d. **Concurrent use.** Aeronautical property used for compatible non-aviation purposes while at the same time serving the primary purpose for which it was acquired; and the use is clearly beneficial to the airport. The concurrent use should generate revenue to be used for airport purposes (see Order 5190.6A, *Airport Compliance Requirements*, sect. 5h).

e. **Fly ash.** The fine, sand-like residue resulting from the complete incineration of an organic fuel source. Fly ash typically results from the combustion of coal or waste used to operate a power generating plant.

f. **Hazardous wildlife.** Wildlife species that are commonly associated with wildlife-aircraft strike problems, are capable of causing structural damage to airport facilities, or act as attractants to other wildlife that pose a wildlife-aircraft strike hazard.

g. **Piston-use airport.** Any airport that would primarily serve FIXED-WING, piston-powered aircraft. Incidental use of the airport by turbine-powered, FIXED-WING aircraft would not affect this designation. However, such aircraft should not be based at the airport.

h. **Public-use airport.** Any publicly owned airport or a privately-owned airport used or intended to be used for public purposes.

i. **Putrescible material.** Rotting organic material.

j. **Putrescible-waste disposal operation.** Landfills, garbage dumps, underwater waste discharges, or similar facilities where activities include processing, burying, storing, or otherwise disposing of putrescible material, trash, and refuse.

k. **Runway protection zone (RPZ).** An area off the runway end to enhance the protection of people and property on the ground (see AC 150/5300-13). The dimensions of this zone vary with the design aircraft, type of operation, and visibility minimum.

l. **Sewage sludge.** The de-watered effluent resulting from secondary or tertiary treatment of municipal sewage and/or industrial wastes, including sewage sludge as referenced in U.S. EPA's *Effluent Guidelines and Standards*, 40 C.F.R. Part 401.

m. **Shoulder.** An area adjacent to the edge of paved runways, taxiways, or aprons providing a transition between the pavement and the adjacent surface, support for aircraft running off the pavement, enhanced drainage, and blast protection (see AC 150/5300-13).

n. **Turbine-powered aircraft.** Aircraft powered by turbine engines including turbojets and turboprops but excluding turbo-shaft rotary-wing aircraft.

o. **Turbine-use airport.** Any airport that ROUTINELY serves FIXED-WING turbine-powered aircraft.

p. **Wastewater treatment facility.** Any devices and/or systems used to store, treat, recycle, or reclaim municipal sewage or liquid industrial wastes, including Publicly Owned Treatment Works (POTW), as defined by Section 212 of the Federal Water Pollution Control Act (P.L. 92-500) as amended by the Clean Water Act of 1977 (P.L. 95-576) and the Water Quality Act of 1987 (P.L. 100-4). This definition includes any pretreatment involving the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. (See 40 C.F. R. Section 403.3 (o), (p), & (q)).

q. **Wildlife.** Any wild animal, including without limitation any wild mammal, bird, reptile, fish, amphibian, mollusk, crustacean, arthropod, coelenterate, or other invertebrate, including any part, product, egg, or offspring there of (50 CFR 10.12, *Taking. Possession. Transportation. Sale. Purchase. Barter. Exportation. and Importation of Wildlife and Plants*). As used in this AC, WILDLIFE includes feral animals and domestic animals while out of the control of their owners (14 CFR 139.3, *Certification and Operations: Land Airports Serving CAB-Certificated Scheduled Air Carriers Operating Large Aircraft (Other Than Helicopters)*).

r. **Wildlife attractants.** Any human-made structure, land use practice, or human-made or natural geographic feature, that can attract or sustain hazardous wildlife within the landing or departure airspace, aircraft movement area, loading ramps, or aircraft parking areas of an airport. These attractants can include but are not limited to architectural features, landscaping, waste disposal sites, wastewater treatment facilities, agricultural or aquacultural activities, surface mining, or wetlands.

s. **Wildlife hazard.** A potential for a damaging aircraft collision with wildlife on or near an airport (14 CFR 139.3).

2. **RESERVED.**

AR 036311

Statement of Edward A. Merlis
Senior Vice President, Government Affairs
Air Transport Association of America
Before the Aviation Subcommittee
Committee on Transportation and Infrastructure
House of Representatives
Hearing on Passenger Facility Charge Increase
March 12, 1998

Mr. Chairman and members of the subcommittee, I appreciate the opportunity to appear before you today to present the views of the Air Transport Association (ATA) concerning an increase in the Passenger Facility Charge.

Over the course of the past six years, since the institution of Passenger Facility Charges (PFC), the traveling public has been handed a bill for $18.5 billion. While it is not universally true, unfortunately, in far too many cases, these PFC supported projects have been tangential at best to the true safety and capacity improvements Congress had in mind when it permitted airports to begin imposing this tax.

What's gone wrong? Cutting to the heart of it, some airports learned very quickly how to game the system. Instead of funding high priority projects, that offer meaningful safety and capacity enhancements, the PFC project pile is full of too many marginal, debatable, and just plain wrong proposals. They could never have passed the type of thorough business-case analysis that scrubs good projects from bad and forces the setting of appropriate priorities. This has resulted in the funding of the truly tested and valuable projects to the traditional process of airport/airline negotiation where they have indeed moved forward. The bottom line, however, -- the consumer gets hurt.

Now we are hearing from the airport community that this addiction to easy tax money is becoming more acute - they need to increase their dosage of PFCs. On behalf of the ATA members, and I dare say in this case, on behalf of our passengers, we think the answer from this committee must be a resounding "NO".

Let me give you just a brief bit of history on this matter.

HEAD TAX HISTORY

It is now more than 35 years since the first attempt at levying a Passenger Facility Charge was commenced. That effort, in 1962, had the Los Angeles City Council proposing a $1.00 tax for each arriving and departing passenger at LAX. The proposal was dropped after an adverse opinion from the city attorney, as well as objections and concerns raised by the airlines and airport management. Later in 1962, a similar proposal was investigated, although not implemented, in Spokane, Washington.

Subsequently, however, head taxes were levied in Evansville, Indiana in 1968, Lebanon, New Hampshire in 1969, and Philadelphia, Pennsylvania in 1972. By 1973, more than 50 airports had adopted head taxes, creating confusion as well as a lack of financial discipline as each airport in the national system sought to become the toll keeper for the right of entry. Responding to public pressure, in 1973 Congress finally imposed a flat prohibition on such taxes. And in spite of the insistence by some airports that the drying up of this revenue stream would lead to airport chaos and gridlock, nothing of the sort occurred. Congress and the industry found the correct way to finance with priorities in mind. Some might even say the nation's airports flourished.

In 1990 the Congress provided a limited exemption from the Anti-Head Tax Act to provide for the implementation of Passenger Facility Charges. Since the first PFC was collected in July 1992, FAA has approved collections in excess of $18.5 billion. Do not be swayed by the siren song of free money now being sung by the airports to bump up the PFC ceiling. How much would that cost? Attached to this statement is a chart depicting the five-year cost of a $2 PFC increase in each state. And, in actuality, since the average PFC is imposed for ten years, a $2 PFC increase in all likelihood means a tax increase in excess $8 billion.

The ATA member carriers are steadfast in their opposition to any increase in this tax - and unified with

you and the American people in opposing excessive taxation.

COST/BENEFIT ANALYSIS

Mr. Chairman, there is a fiscal responsibility void associated with the PFC program. Unnecessarily absent from the statute is a precise congressional direction that all PFC projects must have a clear, aviation-related need and cost-benefit justification in order to be approved. The airports that impose PFCs don't think it's appropriate. The FAA that authorizes their imposition doesn't believe it's appropriate. Their view apparently is - it's free money so there need not be any accountability.

We recently commented to the FAA on a specific project that there was no credible demonstration that it would produce benefits in excess of costs. The FAA's response was completely justifiable in the absence of an appropriate standard setting - which to date, no one in a position of authority has had the will to do.

" There is neither a statutory nor a regulatory requirement for the FAA to conduct cost/benefit analysis as part of its review process of PFC applications. Nor has the FAA yet issued a policy requiring cost/benefit analysis for PFC projects."

Mr. Chairman, we urge you to end this situation. With the FAA having already authorized the collection of $18.5 billion in taxes without any cost/benefit requirement, we respectfully request that the Congress refrain from increasing these taxes and instead instill a measure of accountability in the process.

We suggest, at a minimum, the subcommittee advance legislation requiring an enhanced regulatory definition of the criteria for justification and approval of PFC projects. There needs to be an increased burden, on both the proponents and the FAA, to evaluate proposals against objective standards. Approval should be forthcoming only after a finding that a project is not only eligible, but also is necessary to provide needed enhancements in safety, capacity, security, noise mitigation, or would promote competition between or among air carriers.

To measure against such a standard one must first identify current airport, airside, terminal and landside capacity, and identify, upon the basis of growth estimates, future needs. These growth estimates must be objective and developed jointly by the airport and carriers serving that facility. The PFC process needs a prudent, due diligence analysis. It is only under such circumstances that a plausible conclusion supporting the necessary funding can be reached.

Mr. Chairman, the airline industry is not advocating the elimination of the PFC program. We are simply asking that a basic and objective analysis be required to determine if a proposed PFC project is needed. Frankly, we believe that the opposition by some elements of the airport community to such a test is suspect. Projects worthy of funding should easily pass such a test. Again, we would be pleased to work with the Committee to develop legislative language that would accomplish this goal.

Excessive and unrealistic airport projects are being routinely submitted with virtually no concern for the interests of the fare-paying public. Let me provide you with just one example. Four years ago the FAA approved almost $200 million in PFCs to finance and build a new international terminal at one airport. The airport justified the need for the new terminal on an optimistic, and unsupported, passenger forecast. The airlines recognized that the airport's Federal Inspection Services and international facilities were inadequate, and proposed an alternative - a modest expansion of international facilities at about 5% of the cost of the grandiose new terminal.

The airlines provided the airport with an independent analysis of the airport's forecast that concluded that the forecast was, well, let's be frank, a pipe dream. The airport ignored that analysis, the FAA ignored that analysis, and now we have a $200 million, brand, spanking, new facility with 10% fewer international passengers than was the case when the project was proposed. At the rate international passengers are dropping off at this airport, the old facility the carrier's proposed $10 million expansion might have been profligate.

AIRPORT ACCESS PROJECTS

Lastly, Mr. Chairman, I would like to bring to your attention one additional matter that calls out for congressional attention. The Congress must put a stop to wasteful airport spending on off-airport projects that do nothing to enhance the safety, capacity, or security of the national system of airports. FAA's approval last month of approximately $1.5 billion in Passenger Facility Charges to build a train at New York's John F. Kennedy International Airport is a major setback for airport safety and capacity investment. The FAA's approval is all the more alarming in light of the priority given to this train over other Port Authority capital improvements awaiting funding - by the DOT Inspector General's own accounting some $2.4 billion, much of it involving safety, security and capacity.

Less than 10 days after the FAA approved this project, Denver approached the airlines once again to resurrect the use airport funds to acquire an off-airport rail right-of-way. The initial 17-mile stage of this project would connect the airport with downtown Denver. The long-term plan would connect the airport with ski resorts. Is that an appropriate use of airport funds?

INDUSTRY COST STRUCTURE

I think it is all the more important that you look at these taxes, for which no cost/benefit requirement exists, in the broader cost context in which the airline industry operates. We are currently in the last two years of a massive capital program to change the fleet from Stage II to Stage III. We are underwriting a wide array of security changes, including the introduction of new equipment, put forward by the White House Commission on Aviation Safety and Security. We have begun two major voluntary safety initiatives: installation of smoke detection and fire suppression equipment in cargo holds and installation of Enhanced Ground Proximity Warning Systems. We have agreed to underwrite major necessary expansions at a number of airports costing in the multiple billions of dollars. And lastly, the industry was the unfortunate recipient of a substantial tax increase, which will add at least $4 billion to our cost structure over the next five years.

In light of the foregoing, we very strongly oppose any increase in the PFC.

Mr. Chairman, we would like to thank you and the Members of the Committee for the opportunity to present the views of the nation's airlines on Passenger Facility Charges. As you move forward with legislation, we stand ready to work with you on an appropriate cost/benefit needs assessment program and on defining limits on the use of airport funds for off-airport access projects.

Air Transport Association of America. 1301 Pennsylvania Avenue, NW, Suite 1100, Washington, DC 20004-1707 USA.

Port of Seattle

RECEIVED
OCT 13 1992
PLANNING
DEPARTMENT

February 3, 19992

Richard D. Ford
Preston, Thorgrimson, Shidler,
Gates & Ellis
701 Fifth Avenue
Suite 5400
Seattle, WA 98104-7078

Re: Professional Services

Dear Dick:

This is to confirm that the Port of Seattle has agreed to retain you to provide the following services:

> Assist in developing the implementation phase of Puget Sound Air Transportation Committee's Flight Plan project recommendations, including an analysis of Growth Management legislation, interviews with local community leaders about the Flight Plan recommendations and a written report describing alternative implementation strategies.

It is anticipated that these services shall be provided primarily over the 6-9 months following the date of this letter. It is initially estimated that you will expend approximately 30 hours per month in providing these services, at an hourly rate of $185 (which represents a discounted municipal rate).

Your primary contact at the Port on these matters will be Andrea Riniker, Aviation Managing Director, who is to be consulted, informed and advised on a regular basis and on all significant developments. Ms. Riniker may determine specific additional duties to be performed under this agreement.

All services performed under this agreement, except clerical services, shall be performed by Richard D. Ford, unless otherwise agreed to in writing by the Port of Seattle.

Preston, Thorgrimson, Shidler, Gates & Ellis shall bill the Port of Seattle Legal Department for all services performed hereunder. All time billed shall be recorded in increments of not less than one-sixth of an hour. Additionally, you are authorized to incur and bill necessary and usual costs and expense incident to performing the services described above.

P.O. Box [illegible]
Seattle [illegible]
(206) [illegible]
TELEX [illegible]
FAX (206) [illegible]

You have agreed to provide an overall plan and budget for anticipated services on a quarterly basis. The plan may be modified as agreed between the parties. At a minimum the plan shall include anticipated time to be expended, expressed in hours and dollars, and a brief description of projected activities.

This agreement for services may be terminated by either party at any time upon two weeks written notice.

If you agree with these terms, please sign where indicated below and return one of the duplicate originals enclosed to me. Dick, we are very pleased to have the benefit of your assistance and recognized expertise in this matter.

Sincerely,

Linda

Linda J. Strout
General Counsel

PRESTON, THORGRIMSON, SHIDLER,
GATES & ELLIS

Richard D. Ford

3410G/LJS/acd

insurance shall be procured and maintained in the following form and limits:

1. Commercial General Liability insurance in an amount which is not less than $1,000,000 (or greater where required by the PORT). Policies shall include coverage for the following: Products and Completed Operations, Personal Injury, Premises and Operations, Contractual Liability, Broad Form Property Damage, XCU Liability.

   Comprehensive Automobile Liability Insurance in an amount which is not less than $1,000,000 (or greater where required by PORT).

   Excess liability where required may be in an approved umbrella form.

   All such insurance shall name the PORT as an additional insured.

2. Contingent Employer's Liability (Stop-Gap) where applicable.

3. Agreements calling for design, engineering, surveying or other services relating to construction on new or existing PORT facilities (except interior design and space planning) also require:

   Professional Liability (E&O) insurance in an amount not less than $_____ per occurrence or in the aggregate. To the extent of the dollar amount of Professional Liability insurance specified herein, CONTRACTOR shall indemnify and hold harmless the PORT, its Commissioners, officers, employees, agents and representatives of and from any and all claims arising out of the negligent acts, errors or omissions of CONTRACTOR in the performance of professional services hereunder.

B. CONTRACTOR shall provide industrial insurance coverage in accordance with the laws of the State of Washington. CONTRACTOR Washington State Unified Business Identifier ("UBI") Account No. _____

C. Certain work or services under this Agreement may require Longshore and Harbor Worker's Compensation Act (33 U.S.C. §§901 et seq.) insurance coverage. Failure to obtain coverage, in the amount required by law, may result in civil and criminal liabilities. CONTRACTOR is fully responsible for ascertaining whether or not such insurance is required.

XVIII ANTI-APARTHEID POLICY

This Agreement is subject to the Port's Anti-Apartheid Policy implemented pursuant to Resolution No. 3055. The Policy requires CONTRACTOR to submit a completed Consultant's Certificate of Compliance with Port of Seattle Anti-Apartheid Policy (the "Certificate") under penalty of perjury as a material condition of the Port's execution of this Agreement. A copy of the Certificate appended to this Agreement and made a part hereof by this reference. Complete copies of the Resolution and of the Port's Policy are available at Port contracting departments upon request and at no charge.

ENTIRE AGREEMENT: This Agreement sets forth in full the entire Agreement of the parties in relation to the subject matter hereof and other agreement, representation, or understanding, verbal or otherwise, relating to the professional services of CONTRACTOR, or otherwise dealing in any manner with the subject matter of this Agreement is hereby deemed to be null and void and of no force and effect whatsoever. This Agreement may be waived, changed, modified, or amended only by written amendment executed by both of the parties hereto.

If any provision of this Agreement shall be deemed in conflict with any statute or rule of law, such provision shall be deemed modified to be in conformance with said statute or rule of law.

PORT OF SEATTLE

_____
AUTHORIZED SIGNATURE.

BY: William Inscherz
(Print or Type Name of Signer)

TITLE: Director, Aviation Communications

ADDRESS: Seattle-Tacoma International Airport

P.O. Box 68727

Seattle, WA 98168

_____
Reviewed by Department Director

Greater Seattle Chamber of Commerce
NAME OF CONTRACTOR (Print/Type)

☐ Sole Proprietor ☐ Partnership ☒ Corporation

DO YOU PURCHASE INDUSTRIAL INSURANCE COVERAGE THROUGH THE WASHINGTON STATE FUND, from which benefits are paid to your employees who injured in the performance of their job?

☒ YES ☐ NO

If you checked "NO" above, are you exempt? ☐ YES ☐ NO
(You are exempt from participating in the State fund if you have no employees.)

ARE YOU A SELF-INSURED EMPLOYER? ☐ YES ☒ NO
(A self-insured employer assumes all risks and costs of industrial insurance claims and pays all benefits out of company funds. Self-insured employers must be approved by the Department of Labor and Industries, Industrial Insurance Division.)

EMPLOYER IDENTIFICATION # 91-0402330
OR
SOCIAL SECURITY #

SIGNATURE: _____

BY: Brad Jurkovich
(Print or Type Name of Signer)

TITLE: Manager of Transportation Programs

ADDRESS: Greater Seattle Chamber of Comme
600 University Place Suite 1200
Seattle, WA 98101-3186

Attachments
A-65 REV. 4/92

AR 036317

PORT OF SEATT
MEMORANDU

DATE: March 24, 1993

TO: Kris Messer, Director of Accounting & Purchasing/Port Auditor

FROM: William Anschuetz, Director of Aviation Communications

SUBJECT: Record of Transmittal of Agreement/Contract

Attached for your care, custody, and control is the signed original agreement/contract, executed the 1st day of March, 1993 between the Port of Seattle and The Greater Seattle Chamber of Commerce/Air Washington.

Brief Description of the Service/Work To Be Performed

The service to performed under this contract is to provide information and distribute communications materials regarding the air capacity issue at Sea-Tac Airport.

The service/work to be performed under this agreement/contract shall be commenced on March 1, 1993 and shall be completed by April 30, 1993.

Contract Sum

The Port will pay the Contractor for the satisfactory performance of the service a contract sum of $25,000.00.

Purchase Order No. Assigned: P-930066

6813I

AR 036318

GREATER SEATTLE CHAMBER OF COMMERCE/AIR WASHINGTON

(Title of Project)

P-930066

Agreement No.

THIS AGREEMENT is made and entered into this 1st day of March 19 93 by and between the Port of Seattle, State of Washington (hereinafter referred to as the "PORT" and GREATER SEATTLE CHAMBER OF COMMERCE (hereinafter referred to as the "CONTRACTOR"), for the furnishing of professional services for the AIR CAPACITY ISSUES (hereinafter referred to as the "Project").

The PORT and the CONTRACTOR mutually agree as follows:

I. SCOPE OF WORK

A. CONTRACTOR shall provide all necessary professional and related services for the Project to accomplish the work specified in Attachment A hereto, or which may hereafter be requested by the PORT.

B. In the case of projects covering two or more phases, the PORT will not be obligated to continue this Agreement for any subsequent phases with CONTRACTOR.

II. COMPENSATION

A. The PORT agrees to pay CONTRACTOR, on a time and expense basis, a sum not to exceed Twenty five thousand dollars ($ 25,000.00) payable according to CONTRACTOR'S schedule of fees specified in Attachment A of this Agreement for the professional services specified in Attachment A of this Agreement. Such amount shall constitute complete compensation, including expenses for meals, travel, lodging, and Washington State Sales Tax, if applicable.

B. Payment of compensation specified shall be made monthly. Payment shall be made thirty (30) days from date invoice is received by the PORT, except as otherwise indicated in the Schedule of Payments. All billing shall be to the Port of Seattle, Attn: William Anscuetz P.O. Box 68727 Seattle, Washington 98168. Requests for payment must reference the Agreement number.

C. Compensation will only be made to the extent to which CONTRACTOR presents documented evidence of fees earned and expenses incurred during the period for which payment is requested, and in no case shall the total compensation exceed the sum set forth in Paragraph II. A. above.

III. CHANGES

The PORT may, at any time, make changes by written change order in the Scope of Work specified in Attachment A. If, in the opinion of CONTRACTOR, such changes will require CONTRACTOR to exceed the maximum authorized compensation specified in Paragraph II., CONTRACTOR shall make a request, in writing, for an equitable adjustment in the maximum authorized compensation. Such requests shall be transmitted prior to incurring any time, fee or expense related to the change in scope. Retroactive requests for equitable adjustment shall not be considered by the PORT. The amount of any equitable adjustment shall be negotiated by the parties; however, the inability of the parties to reach an agreement as to the amount of such equitable adjustment shall not delay the performance of work described by this Agreement or changes authorized by this paragraph.

IV. ACCOUNTING RECORDS

A. Records of fees or expenses described in Paragraph II. shall be kept on a generally recognized accounting basis acceptable to the PORT. CONTRACTOR agrees to make such records and supporting documentation available to authorized representatives of the PORT and any Federal agency or agencies charged with the administration of grant money for the Project, both during the Project and for three (3) years following the final payment for services rendered or termination of CONTRACTOR'S services under this Agreement.

B. CONTRACTOR will, if requested by the PORT, furnish within fifteen (15) days from execution of this Agreement a chart of accounts describing the proposed accounting basis as well as examples of relevant accounting and supporting documentation forms to the PORT for its review and approval.

AR 036319

A. The PORT shall designate a project manager to coordinate and review the work of CONTRACTOR and to coordinate the work CONTRACTOR with all agencies and individuals involved with the Project. Project Manager for the PORT is William Anschuetz

CONTRACTOR is expected to work closely with the Project Manager throughout the duration of this Agreement.

B. The PORT shall furnish all drafting medium for the preparation of final plans and drawings for the Project.

C. As an accommodation to CONTRACTOR, the PORT will upon request, furnish without charge such structural, mechanical, soil, chemical and other laboratory tests, inspections, appraisals, legal descriptions, data, reports, records and maps,

as it may have in its possession or may hereafter obtain, that are necessary to complete the service under this Agreement. Such information shall be for general guidance only, and the PORT in no way warrants its sufficiency, adequacy or correctness, or any interpretation, deductions or conclusions derived therefrom. The use of such information for any purpose shall be at the sole risk and responsibility of CONTRACTOR who shall, prior to such use, have satisfied itself that such information is adequate for such use.

D. The PORT shall furnish property, topographic and construction surveys,

for the Project. Prior to use of information contained in such surveys,

CONTRACTOR shall satisfy itself that such information is adequate and correct and shall immediately notify the PORT in writing of any errors, omissions, or inconsistencies found therein.

E. Other:

VI RESPONSIBILITIES OF CONTRACTOR

A. Conduct of Work—Except as otherwise provided herein, CONTRACTOR will, with due diligence, furnish all necessary qualified personnel, material, and equipment, managing and directing same to complete the work described in Attachment .

B. All personnel employed by CONTRACTOR and its subcontractors engaged in the work shall be fully qualified and shall be authorized under State and local law to perform such services.

C. Neither review nor approval of CONTRACTOR'S work by the PORT shall in any way relieve CONTRACTOR from its duty to utilize the highest standard of professional care in the performance of its duties, nor will such review or approval in any way relieve CONTRACTOR from liability to the PORT.

D. CONTRACTOR has designated Brad Jurkovich as Project Manager for the Project. This designation shall not be changed without the prior written approval of the PORT.

E. Period of Performance—CONTRACTOR shall complete all specified work, including submission of reports and/or other required documentation, within the time periods set forth in Attachment A. Time is of the essence in each and every portion of this Agreement, and CONTRACTOR recognizes that in the event of unexcused delays by CONTRACTOR, the PORT may incur costs and expenses as well as claims from third parties, all of which may be charged to CONTRACTOR.

VII. SUBCONTRACTS

Unless provided for in this Agreement, no contract shall be made by CONTRACTOR with any other party for furnishing any of the work or services herein contracted for without the written consent and approval of the PORT. Any subcontract entered into by CONTRACTOR subsequent to the execution of this Agreement must be formally approved by the PORT before it is reimbursable hereunder. To the extent of the work to be performed by subcontractor, CONTRACTOR shall require subcontractor to be bound by the terms of this Agreement and to assume all the obligations and responsibilities which CONTRACTOR, by this Agreement, assumes toward the PORT.

VIII. OWNERSHIP OF DOCUMENTS

A. CONTRACTOR shall transmit to the PORT the original and specified number of copies of all final drawings, prints, plans, field notes, specifications, design computations, calculations, reports, appraisals, maps, logic designs of programs, programs, sub-system designs,

and other project documents as requested by the PORT. These documents will be retained by the PORT as a part of its contract file.

B. All documents prepared or obtained for use in the Project shall become the property of the PORT and may be utilized by the PORT, or its agents, for any purpose whatever without additional fee, royalty, or other payment to CONTRACTOR, provided that use by the PORT for any purpose other than that intended by such documents shall be at the sole risk of the PORT. No such document shall be the subject of any application or claim for copyright by or on behalf of CONTRACTOR. CONTRACTOR shall not make any of the above documents available to any person, except as may be necessary to the performance of CONTRACTOR'S services hereunder, without the prior written approval of the PORT and shall take all necessary steps to keep secure those documents in its possession. CONTRACTOR shall not release any information to any individual or organization, the public or news media without the prior written authorization from the PORT.

IX. TERMINATION OF CONTRACT AND OTHER REMEDIES

A. The PORT may terminate the Agreement as to all or any portion of the work remaining to be performed upon fourteen (14) days written notice to CONTRACTOR, and to complete the work by whatever method the PORT may consider expedient, and recover the costs thereof from CONTRACTOR in the event CONTRACTOR:

1. Fails to prosecute the work continuously to completion with promptness and diligence;

2. Fails to perform any of its obligations under the Agreement; or

3. Becomes insolvent, or is declared bankrupt or commits any acts of bankruptcy, or insolvency, or makes an assignment for the benefit of its creditors.

B. The PORT may at any time at its convenience, and without cause and without prejudice to any other right or remedy, elect to terminate the Agreement. Termination shall be effective upon the PORT'S mailing of written notice thereof to CONTRACTOR. In such case, CONTRACTOR shall be paid for all work performed and for reasonable expenses properly incurred in connection with the termination.

Title to all work performed at the time of termination shall be transferred to the PORT upon payment therefore.

C. Any decision by the PORT to pursue any remedy provided for herein shall not be construed to bar the PORT from the pursuit of any other remedy provided for by law or equity in the case of similar, different or subsequent breaches of this Agreement.

X. NON-DISCRIMINATION AND AFFIRMATIVE ACTION

CONTRACTOR covenants and agrees that in all matters pertaining to the performance or carrying out of work under this Agreement, CONTRACTOR shall at all times conduct business in a manner which assures fair, equal, and non-discriminatory treatment of all persons without respect to race, color, religion, sex, national origin, age, handicap, or veteran status, and, in particular:

A. CONTRACTOR will maintain open hiring and employment practices and will welcome applications for employment in all positions from qualified females and individuals who are members of racial or religious minorities. CONTRACTOR'S Affirmative Action Plan submitted to the PORT shall indicate CONTRACTOR'S intent to attain an employee composition with respect to females and minorities comparable to or consistent with the PORT's Equal Employment policies. The following shall be submitted according to project:

1. For agreements for $10,001 or more, CONTRACTOR shall execute and submit the PORT'S Certificate of Compliance with Port of Seattle Affirmative Action Resolutions form.

In lieu of utilizing the PORT'S certificate of compliance form, CONTRACTOR may submit an Affirmative Action Plan with the following information:

a. A current personnel profile identifying all minority and female employees.

b. Goals and timetables.

c. Analysis of minority and female utilization.

d. A letter of commitment as reaffirmation of the Chief Executive Officer of the company to Affirmative Action and Equal Employment. This should reflect the current year.

e. CONTRACTOR'S Affirmative Action Officer must be clearly identified.

2. All agreements for $10,000 or less do not require submittal of an affirmative action plan or submittal of the PORT'S Certificate of Compliance with Port of Seattle Affirmative Action Resolutions form.

B. CONTRACTOR shall strictly comply with all requirements of applicable Federal, State, or local laws or regulations issued pursuant thereto relating to the establishment of non-discriminatory requirements in hiring and employment practices, and assuring the service all patrons or customers without discrimination.

C. CONTRACTOR will act without discrimination when engaging subcontractors to perform work under this Agreement and will give equal consideration to minority and female owned firms.

D. CONTRACTOR agrees throughout the term of this Agreement to follow the policies set forth in the PORT's Certificate of Compliance with Port of Seattle Affirmative Action Resolutions form or CONTRACTOR'S Affirmative Action Plan as approved and on file with the PORT. Additionally, CONTRACTOR agrees to notify the PORT of any significant changes in its total office personnel or project workforce composition as it may relate to the personnel composition represented to the PORT prior to beginning the Project.

WBE participation. The PORT has established the following goals for MBE and WBE participation for this Agreement: _____ Percent (_____ %) MBE and _____ Percent (_____ %) WBE. By executing this Agreement, CONTRACTOR is making a commitment to the MBE and WBE goals established for the Project.

F. CONTRACTOR certifies by executing this Agreement, for Federally-assisted projects that it is and will remain in compliance with the Equal Opportunity Clause for Federally-assisted construction, which clause is available upon request.

J. INDEPENDENT CAPACITY OF CONTRACTOR

The parties declare that CONTRACTOR, and any agents and employees of CONTRACTOR, in the performance of this Agreement, are acting as independent CONTRACTORS and not in any manner as officers or employees or agents of the PORT insofar as this Agreement applies.

XII. ASSIGNABILITY

Neither the PORT nor CONTRACTOR shall assign, or transfer any interest in this Agreement without the prior written consent of the other.

XIII INTEREST OF CONTRACTOR

Contractor covenants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement. CONTRACTOR further covenants that in the performance of this Agreement, no person having any such interest shall be employed.

XIV. COMPLIANCE WITH APPLICABLE LAWS

CONTRACTOR agrees to conduct and execute the Project in compliance with all applicable local, State or Federal laws.

XV. GOVERNING LAW

This Agreement shall be governed by the laws of the State of Washington. Venue for any action between the PORT and CONTRACTOR, arising out of or in connection with this Agreement, shall be in King County.

XVI. INDEMNITY

A. CONTRACTOR shall defend, indemnify, and hold harmless the PORT from all liability, claims, damages, losses, and expenses, whether direct, indirect or consequential (including, but not limited to, attorneys' and consultants' fees and other expenses of litigation or arbitration) arising out of the performance of this Agreement which is caused, or alleged to be caused, in whole or in part, by any act or omission of CONTRACTOR; PROVIDED, however, that this paragraph shall not be construed so as to require CONTRACTOR to defend, indemnify or hold harmless the PORT from such claims, damages, losses, or expenses caused by or resulting from the sole negligence of the PORT; PROVIDED FURTHER that if and to the extent that this Agreement is construed to be relative to the construction, alteration, repair, addition to, subtraction from, improvement to, or maintenance of any building, highway, road, railroad, excavation, or other structure, project, development, or improvement attached to real estate, including moving or demolition in connection therewith, and therefore subject to Section 4.24.115 of the Revised Code of Washington, it is agreed that where such liability, claim, damage, loss, or expense arises from the concurrent negligence of (1) the PORT and (2) CONTRACTOR, it is expressly agreed that CONTRACTOR'S obligations of indemnity under this paragraph shall be effective only to the extent of CONTRACTOR'S negligence. The obligations of this paragraph shall not be construed to negate, abridge, or otherwise reduce any other right or obligation which would otherwise exist as to any person or entity described in this paragraph.

B. In any and all claims against the PORT by any employee of CONTRACTOR, the indemnification obligation of Subparagraph A. of this paragraph shall not be limited in any way by any limitation on the amount or type of damages or compensation benefits payable by or for CONTRACTOR under applicable worker's or workmen's compensation, benefit, or disability laws (including, but not limited to, the Industrial Insurance laws, Title 51 of the Revised Code of Washington). CONTRACTOR expressly waives any immunity CONTRACTOR might have under such laws, and, by agreeing to enter into the Agreement, acknowledges that the foregoing waiver has been mutually negotiated by the parties.

C. For purposes of this paragraph only, the term "PORT" shall mean and include the PORT and its commissioners, other officers, employees, and agents, and the term "CONTRACTOR" shall mean and include CONTRACTOR, all of its subcontractors and supplier at all tiers, agents, and any other person directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable.

XVII INSURANCE

A. Prior to commencement of services under this Agreement, CONTRACTOR shall procure, and maintain in force for the life of this Agreement, the insurance coverages required below. Each coverage shall be evidenced by a Certificate of Insurance and shall provide that each coverage will not lapse or be terminated without the insurer's written notification to the PORT, delivered by mail, not less than forty-five (45) days prior to any such lapse or termination.

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April 20, 1998

Mr. Jonathan Freedman
Regulatory Branch
United States Army Corps of Engineers
Seattle District
P.O. Box 3755
Seattle, Washington 98124-2255

Mr. Tom Luster
Permit Coordination Unit
Department of Ecology
P.O. Box 47703
Olympia, WA 98504-7703

Re: Supplemental Comments on the Port of Seattle Section 404 Permit Application
File No. 96-4-02325

Dear Mr. Freedman and Mr. Luster:

On behalf of the cities of Burien, Des Moines, Federal Way, Normandy Park, and Tukwila, Washington, and the Highline School District, individually, and collectively as the Airport Communities Coalition ("ACC"), we have commented previously on the Port of Seattle's ("Port") application for a Department of the Army Permit in accordance with Section 404 of the Federal Clean Water Act ("Port Permit Application")[1/] and on the associated Washington State

[1/] Letter from Peter J. Kirsch to Jonathan Freedman, United States Army Corps of Engineers (Jan. 20, 1998).

Water Quality Certification.[2] ("January Comments") Those comments are incorporated herein by reference.

This letter supplements the ACC's January Comments and, together with those comments, supports the ACC's oral testimony presented during the April 9th hearing.[3] In particular, this letter addresses in more detail issues raised in the ACC's prior comments as well as issues raised by new information that has become available since that time: (1) the sufficiency of proposed mitigation of adverse impacts of the Port's proposed fill activities; (2) the sufficiency of National Environmental Policy Act documentation supporting the Port's Permit Application; (3) compliance with local and state requirements; (4) the sufficiency of the Port's stream relocation plans; and (5) the consideration of impacts on endangered and threatened species. These issues must be addressed before the Corps may issue a Section 404 Permit to the Port.

I. The Port's Proposed Mitigation Project in the City of Auburn Is Not Sufficient to Minimize Potential Adverse Impacts on the Aquatic Ecosystem.

As noted in the ACC's January Comments, EPA Guidelines mandate that no discharge of dredged and fill material shall be permitted "if there is practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem,"[4] and unless "appropriate and practicable steps have been taken which will minimize potential adverse

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[2] Letter from Peter J. Kirsch to Tom Luster, Washington State Department of Ecology (Jan. 21, 1998).

[3] In the notice of joint public hearing issued March 6, 1998 for the proposed construction at Sea-Tac International Airport ("Hearing"), the Army Corps of Engineers' ("the Corps") and the Washington State Department of Ecology ("Ecology"), requested that all important testimony be submitted in writing. The notice also stated that the Corps would accept written comments for ten days following the April 9th hearing and that Ecology would accept comments for twenty days.

[4] 40 C.F.R. § 230.10(a).

impacts of the discharge on the aquatic ecosystem."[5] The Corps's Memorandum of Understanding with EPA ("Mitigation MOU") provides a three-step sequence for developing appropriate mitigation measures to comply with the EPA Guidelines: (1) to the extent practicable, all adverse impacts must be avoided; (2) if adverse impacts cannot practicably be avoided, adverse impacts must, to the extent practicable, be minimized; (3) if adverse impacts cannot practicably be minimized, compensatory mitigation is required.[6] Further, the Mitigation MOU provides that where on-site compensatory mitigation is not practicable, off-site mitigation should be undertaken, when practicable, in the same geographic area (i.e., in close proximity and, to the extent possible, in the same watershed) where impacts occur.

A. The Port Has Not Selected the Least Environmentally Damaging Practicable Alternative Available or Taken Appropriate Steps to Minimize Impacts

The ACC continues to maintain that the Port has not adequately addressed the first and second steps in this sequence because practicable alternatives exist which would avoid or minimize adverse impacts on wetlands and aquatic resources. The Mitigation MOU clearly states: "Section 230.10(a) allows permit issuance for only the least environmentally damaging practicable alternative." Only then may the Corps require steps to assure "remaining unavoidable impacts then be mitigated to the extent appropriate and practicable." Finally, and only when those measures have been exhausted, may the Corps require compensation for aquatic resource values.

[5] Id. § 230.10(d).

[6] See Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army Concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines (1990).

The ACC has described one practicable alternative to the Port's proposal which would avoid or minimize wetlands impacts in its January Comments—a shorter runway. The resource agencies likewise have suggested alternative project configurations which would avoid wetlands impacts.[7/] Until these alternatives have been implemented the Corps may not consider compensatory mitigation proposed by the Port.

Further, the Mitigation MOU notes that "[i]t is important to recognize that there are circumstances where the impacts of the project are so significant that even if alternatives are not available, the discharge may not be permitted *regardless of the compensatory mitigation proposed.*"[8/] The Miller and Des Moines Creek watersheds are small. These watersheds also have been subject to cumulative losses of wetlands over the years. Taking these two factors into account—the size of the watershed and the extent of prior wetlands lost—the impact of filling additional wetlands as proposed by the Port is very significant. If the only alternative to the loss of these wetlands in these watersheds is to deny the Port's Permit Application, the permit should be denied.

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B. Viable Locations for On-Site and Same-Watershed Wetlands Replacement Are Available But Have Not Been Considered Seriously

Not only the ACC, but also the resource agencies have noted the Port's failure to undertake meaningful consideration of on-site and same-watershed locations for wetlands replacement and have recommended denial of the Permit as currently proposed. The Corps has committed to "fully consider" the views of these agencies when determining "whether to issue

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[7/] See Letter from Fred Weinmann, Acting Manager of the Aquatic Resources Unit, EPA, to Colonel James M. Rigsby, District Engineer, Seattle District Corps of Engineers (Feb. 3, 1998) (alternative location of the South Aviation Support Area); Letter from Nancy J. Gloman, U.S. Fish and Wildlife Service, to Colonel James M. Rigsby, District Engineer, Corps of Engineers, Seattle District (January 22, 1998) (reconfigure on-site borrow areas).

[8/] See also 40 C.F.R. § 230.10(c).

the permit, issue the permit with conditions and/or mitigation, or to deny the permit."[9] In its comments on the Port's Permit Application, the Environmental Protection Agency wrote:

> The proposed off-site mitigation cannot mitigate for those specific lost aquatic resources in the Des Moines Creek and Miller Creek Watersheds. . . . There are a number of wetlands within the Des Moines Creek and Miller Creek watersheds that could benefit from enhancement and restoration.[10] We recommend the Corps of Engineers look for on-site (in basin) aquatic resources mitigation opportunities that would provide environmental benefits.

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The United States Fish and Wildlife Service concurred:

> Although the EIS documents state that on-site and off-site mitigation opportunities within the watershed are limited, mitigation sites closer to the impact site should be considered further. . . . Based on the information contained in the public notice, the Service believes that a permit should not be issued for the proposed project at this time. The applicant should evaluate off- and on-site alternatives to the borrow site, and identify mitigation sites within the same watersheds as the proposed impacts.[11]

Contrary to assertions in the Port Permit Application, no federal law or policy prohibits the siting of replacement wetlands on site or within the Des Moines or Miller Creek watersheds. The Port relies upon a technical advisory publication issued by the Federal Aviation Administration which has no binding legal effect. As the resource agencies also have indicated, the practices and suggestions set out in the Federal Aviation Administration Advisory Circular for "Hazardous Wildlife Attractants on or Near Airports" ("FAA Guidelines") are

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[9] United States Army Corps of Engineers, Regulatory Guidance Letter No. 92-1, Federal Agencies' Roles and Responsibilities (May 13, 1992).

[10] See Letter supra note 7.

[11] Letter supra note 7.

recommendations, not requirements.[12] These recommendations therefore cannot be used by the Port to avoid serious consideration of on-site or same-watershed mitigation options. The FAA Guidelines explicitly recognize that "exceptions to locating mitigation activities outside the separations identified . . . may be considered if the affected wetlands provide unique ecological functions."[13] As noted above, because of the small size of the Miller and Des Moines Creek watersheds and the extent of historic wetlands losses, the remaining wetlands have great ecological significance. Wetlands also can be managed to eliminate or reduce bird attractions. Strategies could include regular removal of saplings, netting, and use of electronic signals and other devices that discourage wildlife. Thus, adherence to the FAA Guidelines would not preclude on-site or in-basin mitigation as the Port claims.

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The Port's failure to identify on-site or in-basin mitigation is not a mere procedural defect in the Port Permit Application. While the Port bears the burden of demonstrating the *absence* of both practicable on-site and same-watershed mitigation, there exist *both* on-site and same-watershed mitigation opportunities which are neither meaningfully analyzed nor even identified in the Port Permit Application. The ACC has had the opportunity to identify a number of such locations within the southern Des Moines Creek watershed alone which appear to be candidates for compensatory mitigation. Although necessarily preliminary (because the analysis is based strictly on aerial photographs and staff expertise), these locations are set out in the attached Exhibit and Figure 1. These locations were selected based on the following criteria: the sites are not currently developed; they do not contain existing wetlands; they are not steeply sloped; nor are they zoned to preclude wetlands restoration or construction.

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[12] Letter from Willie R. Taylor, Office of Environmental Policy and Compliance, United States Fish and Wildlife Service to Dennis Ossenkop, Federal Aviation Administration (July 16, 1997).

[13] FAA, Advisory Circular No. 150/5200-33, Hazardous Wildlife Attractants On or Near Airports (May 1, 1997).

As Figure 1 illustrates, even without considering the entire watershed, significant acreage is available for compensatory mitigation.

The Port identified many additional sites meeting this criteria in its Wetlands Mitigation Plan.[14] Citing federal wetlands mitigation banking guidance, the Port rejected the vast majority of these sites without further analysis simply because the sites were less than ten acres.[15] Even if the Port's mitigation plan qualified as a mitigation bank,[16] the guidance cited by the Port does not preclude consideration of these smaller sites. Federal guidance states only that "[i]t *may be* more advantageous for maintaining the integrity of the aquatic ecosystem to consolidate compensatory mitigation into a single large parcel or contiguous parcels *when ecologically appropriate*."[17] Furthermore, the guidance maintains a preference for on-site and same-watershed mitigation even when it can only be accomplished through use of smaller sites. The guidance states, "credits may *only* be authorized when on-site compensation is either not practicable or use of a mitigation bank is environmentally preferable to on-site compensation."[18] Further, "compensation for wetlands impacts should occur, where appropriate and practicable, within the same watershed as the impact site."[19] As the resource agencies have commented, and

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[14] See Parametrix, Inc., Wetland Mitigation Plan for Proposed Master Plan Update Improvements at Seattle-Tacoma International Airport, Figure 3.2-2a, -2b (Dec. 1996).

[15] See id. at 3-21.

[16] As a threshold matter, the Port's proposal does not qualify as a mitigation bank because it would not "provid[e] compensatory mitigation *in advance* of authorized impacts to similar resources" as typically required. 60 Fed. Reg. 58605, 58607 (Nov. 28, 1995).

[17] 60 Fed. Reg. at 58607 (emphasis added).

[18] Id. (emphasis added); see also id. at 58611.

[19] Environmental Protection Agency and Army Corps of Engineers, Memorandum to the Field, Establishment and Use of Wetland Mitigation Banks in the Clean Water Act Section 404 Regulatory Program (Aug. 23, 1993) (emphasis added).

the ACC agrees, off-site and out-of-watershed mitigation is not environmentally preferable or ecologically appropriate in the case of the Des Moines and Miller Creek watersheds.

7 The Port has refused to include local communities in efforts to identify possible locations—such as those depicted in Figure 1—to develop on-site and same-watershed mitigation alternatives. Yet, the affected Des Moines and Miller Creek watersheds are largely located within our cities and therefore the ACC communities have the greatest stake in the outcome of the Corps of Engineers' permitting process. Further, the Port focused its search on the Green River Valley, and admittedly did not examine same-watershed mitigation sites in any detail.[20/] In fact, the Port summarily dismissed consideration of same-watershed mitigation sites 8 in its Final Environmental Impact Statement simply based upon the assertion (made without apparent supporting evidence) that the basin is largely developed and sites of sufficient size do not exist.[21/] Until the Port demonstrates that on-site and same-watershed mitigation is not feasible, issuing a permit for the Port's project as currently proposed would be contrary to Corps regulations, the Mitigation MOU, and to the Corps's stated policy of giving full consideration to the views of the resource agencies.

C. The Port's Proposed Mitigation Project in the City of Auburn is Unlikely to Succeed

9 On March 18, 1998, the City of Auburn and the Port entered into an Interlocal Agreement for the implementation of the Port's proposed mitigation project ("Agreement").[22/] That Agreement was executed prior to the public comment on, and interagency review of, the

[20/] See Parametrix, Inc., Environmental Report: Port of Seattle Master Plan Improvements Wetland Mitigation Site, Auburn, Washington 3 (January 15, 1996).

[21/] FEIS, IV.19-8, Appendix P at 3-12.

[22/] See Interlocal Agreement Between the City of Auburn and Port of Seattle Regarding Wetlands Construction, Infrastructure, Improvements, and Property Transfer (March 18, 1998).

Ports proposed mitigation plan mandated by federal law. Under the Agreement, the Port agrees to contribute to infrastructure improvements in the vicinity of the wetlands property and to convey "excess" property not needed for the wetlands plan ("Excess Area")[23/] in exchange for relief from assessments and processing of zoning changes, permits and approvals in "a timely, reasonable and standard manner." However, in this transaction, the Port has neglected terms vital to assuring the long term viability of the Port's mitigation plan.

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First, the Agreement notes that Auburn has expressed interest in using the excess property "in conjunction with its infrastructure improvements in the area." These improvements include water and sewer conveyance systems; regional stormwater detention, water quality, and conveyance facilities; and two additional traffic lanes on a neighboring street. Under the Agreement, "Auburn will use, trade, sell, or otherwise manage or dispose of the Excess Area, and will expend any payments of cash value of the Excess Area, solely for the benefit of the [improvements]." The Agreement provides no restrictions on the use of the Excess Area, however, and thus provides no mechanisms, such as deed restrictions and conservation easements, to assure that future uses are not inconsistent with success of the wetlands. It is important also to recognize that the proposed funding of infrastructure improvements for the benefit of the City of Auburn has no demonstrable nexus either to the wetlands functions which are supposed to be fulfilled or to the operation of the airport. While such compensatory payments may be a wise political action needed to secure support for the Port's airport redevelopment project, the payments are not in any manner related to the proposed mitigation function.

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Second, the infrastructure improvements adjacent to and "benefiting" the property, including street expansion and stormwater detention facilities, are themselves likely to

[23/] If the Excess Area acreage is less than 16 acres, Auburn may elect to receive cash payment in lieu of the property.

11 adversely affect the hydrology of the area and thus the viability of wetlands. These improvements are to be constructed "as shown on Auburn's Comprehensive Plan or as designated in the Special Planning Area." There are no provisions to assure that the ultimate design of these improvements will accommodate the needs of the mitigation project.

12 Finally, the Agreement indicates that an ongoing water supply and maintenance of sustainable wetlands hydrology may be a significant problem for the project. The Agreement provides for Auburn to provide a temporary easement across the excess property and will make available water for irrigation of the constructed wetlands during the "initial growing seasons following planting." The need for supplemental water to establish wetlands vegetation suggests that sufficient water may not be available to sustain wetlands in the proposed location over the long term. Further, in the event that the wetlands are not self-sustaining, the Agreement does not provide long term assurance of water service to the wetland.

13 Without provisions to address surrounding land use and assure water supply, the Port has no legal ability to assure the viability of the proposed mitigation project. The terms of the Agreement, in conjunction with technical issues raised in the ACC's January Comments and comments of the resource agencies,[24/] substantially diminish the chances that the Port's mitigation plan will succeed.

14 As the Corps is aware, the federal government recently announced its Clean Water Act Action Plan which calls for attaining a net *increase* of 100,000 wetland acres per year by the year 2005. This goal is to be achieved in part through "ensuring that existing wetland programs

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[24/] See Letters supra notes 1, 2 and 7.

continue to slow the rate of wetland losses."[25] To issue this permit as proposed would be contrary to this goal and to Administration policy.

II. A Supplemental Environmental Impact Statement is Necessary to Support the Port's Permit Application

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The Public Notice of Application for Permit issued December 19, 1997, indicates that the Corps was a cooperating agency in preparation of the Final Environmental Impact Statement and Supplemental Environmental Impact Statement prepared for the Port's proposed Master Plan Improvements ("EIS Documents") which covers activities included in the Port's Permit Application. Where, as here, another agency is a lead agency in preparing an EIS, Corps regulations require that the Corps provide the necessary environmental information and work with the lead agency to "insure that agency's resulting EIS may be adopted by the Corps for purposes of exercising its regulatory authority."[26] As currently written, however, the EIS documents are inadequate to support the Corps's permitting decision.

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It is important to recognize that the propriety of NEPA documentation must be measured independently by the Corps and the FAA. NEPA regulations promulgated by the Council on Environmental Policy, and implemented under Corps regulations,[27] specifically require that an EIS "rigorously explore and objectively evaluate all reasonable alternatives" and include in its discussion of alternatives "appropriate mitigation measures not already included in the proposed action or alternatives." 40 C.F.R. § 1502.14(f). Regardless of whether the documentation satisfies FAA requirements (especially with regard to examination of alternatives

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[25] 63 Fed. Reg. 14109, 14111 (March 24, 1998).

[26] 33 C.F.R. Part 325, Appendix B.

[27] 33 C.F.R. Part 325, Appendix B.

16 to the proposed action, as defined for FAA purposes), the Corps must independently determine whether the documentation adequately examined alternatives *from the perspective of a proposed wetlands permit.* While the Corps's statutory mandate in this context is considerably narrower than that of the FAA, it also is markedly different: there may exist sub-alternatives (e.g., alternative ways of designing each reasonable alternative) which should have been examined for the purposes of the Corps's review.

17 As discussed in detail above, the EIS documents fail to provide "a clear basis for choice among options," as required for purposes of the Corps's Section 404 permit decision, both because the EIS Documents fail to (1) address reasonable alternatives which could avoid wetlands impacts; and (2) discuss in adequate detail on-site and same-water shed mitigation options. In addition, in March, three species that have been identified as using either the project area or the Puget Sound, downstream of the project area, were proposed for listing as endangered or threatened species—chinook and chum salmon and steelhead trout.[28/] The impact of the 18 proposed Master Plan Improvements on the designated evolutionarily significant units or critical habitats of these species were not addressed in the EIS Documents. Regardless of whether such omissions were permissible under FAA regulations (an issue which presently is under litigation), the omissions clearly were impermissible under the Corps's NEPA obligations.

19 Where the Corps finds "substantial doubt as to the technical or procedural adequacy of, or omission of, factors important to the Corps decision" in an Environmental Impact Statement prepared by another federal agency pursuant to the National Environmental Policy Act, the Corps must supplement those documents.[29/] Likewise, it may be necessary to

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[28/] 63 Fed. Reg. 11482 (March 9, 1998) (chinook salmon); 63 Fed. Reg. 11774 (March 10, 1998) (chum salmon); 63 Fed. Reg. 11798 (March 10, 1997) (steelhead trout).

[29/] 33 C.F.R. § 320.21.

supplement NEPA documents where those documents have not "considered the alternatives in sufficient detail to respond to the requirements of the [] Guidelines." [30] The deficiencies in the EIS Documents thus require the Corps to prepare a supplement before it can adopt these documents to support its Section 404 determination. Failure to address these deficiencies would be grounds to overturn the Corps's permitting decision.[31]

III. The Port Has Failed to Comply With State and Local Wetlands Permitting Requirements

As the ACC noted in its January Comments, Corps regulations prohibit granting a Section 404 permit where federal, state, and/or local authorization and/or certification has been denied for activities which also require a wetlands permit.[32] When these other authorization/certification processes are proceeding concurrently, Corps regulations provide that any permit issued should "as appropriate, be conditioned" or, "the district engineer may decide that due to the nature or scope of a specific proposal, it would be prudent to defer taking final action until another agency has acted on its authorization."[33] In this instance, deferral or appropriate conditioning of the Port's Section 404 permit would be in order.

Washington's Shoreline Management Act establishes mandatory local government programs to regulate "shorelines of the state within its jurisdiction."[34] Shorelines of

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[30] 40 C.F.R. § 230.10(a)(4).

[31] See National Wildlife Federation v. Marsh, 721 F.2d 767, 783-84 (11th Cir. 1983) (SEIS required for mitigation options not addressed in EIS); see also, Oregon Natural Resources Council v. Harrell, 52 F.3d 1499, 1506 (9th Cir. 1995) (remand for consideration of new mitigation information and determination of need for SEIS).

[32] 33 C.F.R. § 320.4(j)(1).

[33] Id. § 325.2(d)(4).

[34] R.C.W. 90.58.090(1).

the state are defined to include "the water areas of the state, including reservoirs, and their associated wetlands, together with the lands underlying them."[35] "Substantial development" in these areas (which includes fill activities with a total value greater than $2,500) may not be undertaken without a permit from the appropriate local government entity.[36]

Despite these clear requirements, the Port Permit Application omits any meaningful discussion of state or local requirements. The Port has dismissed local ordinances by stating (without any evidentiary support) that "it will not be possible to replace filled wetlands in the same sub-basin as the wetlands to be filled due to sitting [sic] criterion."[37] To date, the Port has either not yet obtained or not attempted to obtain permits from local jurisdictions in which affected wetlands are located. Nor do these permitting requirements appear to be acknowledged in the Port Permit Application.[38] Since the regulations of the municipalities of Des Moines and SeaTac (in which wetlands currently proposed to be filled are located) require mitigation either in the same watershed or sub-basin,[39] the Port has no reasonable basis for determining whether it is likely to receive the necessary local approval for its mitigation plan as proposed. Without obtaining these permits, or without some reasonable assurance that such local permits are forthcoming, the Corps cannot issue the Port's Section 404 Permit.

21

Likewise Washington gives cities, including the ACC cities, power to "regulate and control, and to prevent and punish, the defilement or pollution of all streams running through

22

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[35] Id. 90.58.030(2)(d).

[36] Id. 90.58.140(2). This definition could exclude certain wetlands depending on the mean annual flow of the stream segment associated with the wetland.

[37] Final SEIS at F-127.

[38] See Port Permit Application, Attachment D.

[39] See ACC, Comments on the Draft EIS at 5.6-4 to -5.

or into its corporate limits, and for the distance of five miles beyond its corporate limits."[40] As the ACC has set out in its previous comments, the Port's proposed expansion is anticipated to create significant degradation of water quality in the Des Moines and Miller Creeks. Surrounding cities possess the power to prevent the pollution of these streams, and deny authorization to proceed.

22

IV. The Port Has Provided Insufficient Information to Evaluate the Effects of Its Proposed Stream Relocation Plans

The Corps's Public Notice of Application for Permit states that, in addition to filling and rechanneling of Miller Creek and drainage channels in the Miller Creek drainage, the Port proposes to fill and rechannel about 2,200 feet of Des Moines Creek. Yet, while the runway extension and development of the South Aviation Support Area which would require the relocation of Des Moines Creek are scheduled as Phase I construction activities,[41] the Port has provided no information concerning the Des Moines Creek rechanneling. In fact, the Port's Permit Application makes no mention of fill and rechanneling of Des Moines Creek and specifically notes that "[i]mpacts to Des Moines Creek will occur in later phases of construction activity. . . . therefore a separate permit application for construction in Des Moines Creek will be submitted later once precise impacts to Des Moines Creek and its tributary are known."[42] Reconstruction of a natural stream bed is a difficult task and, as the Port admits, fill associated with these activities has "potential long term impacts on fish and aquatic biota."[43] Without

23

[40] R.C.W. 35.22.280(29) (first-class cities); 35.24.290(3)(third-class cities).

[41] See FEIS at II-44 (SASA part of Phase I improvements); IV.16-13 (SASA requires relocation of Des Moines Creek).

[42] Port Permit Application, Attachment B.

[43] FEIS at IV. 16-13.

more information to evaluate this proposed filling and rechanneling in Des Moines Creek, the Corps cannot approve this activity under the Port's current permit application. (Regardless of when the Port proposes the channelization project, the impacts of that project should be examined by the Corps as cumulative projects or cumulative impacts under NEPA – an area of analysis which is especially crucial in light of the federal government policy of avoiding and reversing the national trend toward allowing cumulative wetlands impacts.)

23

V. The Port Has Provided Insufficient Information to Evaluate the Effects of the Proposed Airport Expansion on Endangered Species

Section 7 of the Endangered Species Act requires an analysis of the effects of a major construction project on any federally listed or proposed endangered or threatened species that may use the project area.[44] The status of species, including chinook and chum salmon and steelhead trout, has only recently become known and clearly constitutes new information made available since the Port completed its NEPA documentation on the larger airport redevelopment project.[45]

24

In closing, the ACC emphasizes that the burden of proof to demonstrate compliance with applicable permitting requirements rests with the applicant. Where the applicant has provided insufficient information to determine compliance, these regulations require that no permit be issued.[46] As set out in these and the ACC's January Comments, the Port has failed to carry this burden. Because the Port's Permit Application fails to demonstrate compliance with applicable regulations and is likely to result in a net loss of wetlands, the Corps

25

[44] 16 U.S.C. § 153.6

[45] See supra note 25

[46] 40 C.F.R. § 230.12(a)(3)(iv).

cannot and, for policy reasons, should not issue a Section 404 permit for the proposed Sea-Tac expansion as currently proposed.

Sincerely,

Peter J. Kirsch

EXHIBIT 1

PRELIMINARY INVENTORY OF POTENTIAL WETLAND MITIGATION SITES IN THE DES MOINES WATERSHED PORT OF SEATTLE PROPOSED MASTER PLAN IMPROVEMENTS

This preliminary site inventory was prepared using aerial photographs taken in April 1997 for the area of the Des Moines Creek watershed located to the south of South 176th Street. These sites are illustrated on the attached Figure 1. Based on aerial photographs, these sites appear to vacant or to contain minimal improvements. The sites do not include known wetlands and are located outside of areas mapped as airport clear zones and noise remedy areas. The majority are located between five and ten thousand feet from existing runways. In most instances, wetlands creation or restoration would not be precluded by current zoning classifications. Site boundaries illustrated on Figure 1 and acreage estimates are not exact. While some sites may be more suitable than others for compensatory wetland mitigation, all deserve careful scrutiny as potential wetland mitigation sites before any properties outside the Des Moines Creek watershed are considered.

Figure 1 Wetland Mitigation Site Number	Jurisdiction	Description
1	SeaTac	This site is currently zoned for industrial uses and is somewhat less than ten acres in size.
2	King County	This site is roughly ten acres in size.
3	King County	This site is roughly ten acres in size.
4	Des Moines	This site is somewhat larger than ten acres and is located near smaller wetlands that would be affected by proposed Borrow Area 3 development. The current zoning is for single family residential uses.
5	Des Moines	This site is roughly thirty acres in size. The current zoning is for single family residential uses. The site is located close to areas of smaller wetlands which would be impacted by development of proposed Borrow Areas 3-4.
6	SeaTac	This size is zoned for urban low density residential and airport/aviation commercial uses. The site is roughly twenty acres in size and shows good potential for enhancing and expanding of existing wetlands within the site.
7	SeaTac	This site is zoned for urban low density residential uses and is less than ten acres in size. This site is located near proposed Borrow Area 3.
8	SeaTac	This site is zoned for urban low density residential uses and is roughly ten acres in size. This site is located near proposed Borrow Area 3.
9	Des Moines	This site is zoned for single family residential uses and is between twenty and thirty acres in size. It is located near Des Moines Creek and appears to be in the same catchment as some smaller wetlands that would be affected by development of proposed Borrow Areas 1-3.
10	Des Moines	This site is zoned for residential attached and single family residential uses and is less than ten acres.
11	Des Moines	This site is zoned for single family residential uses and is roughly ten acres in size. This site is located south of South 216th Street close to the area of small wetlands that would be affected by development of proposed Borrow Areas 1-4.

AR 036340

Figure 1 Wetland Mitigation Site Number	Jurisdiction	Description
12	Des Moines	This site is zoned for multifamily residential uses. The site is smaller than ten acres in size and located south of South 216th Street close to the area of small wetlands that would be affected by development of proposed Borrow Areas 1-4.
13	SeaTac	This site is zoned for an aviation business center uses. The site is smaller than ten acres and located just north of Bow Lake.
14	SeaTac	This site is zoned for urban low density residential uses. The site is somewhat smaller than ten acres in size and located near Bow Lake.
15	SeaTac	This site is zoned for urban low density residential uses. The site is larger than twenty acres and is located near Bow Lake. This site shows good potential for expanding and enhancing smaller wetlands located within the site.
16	SeaTac	This site is zoned for urban low density residential uses. The site is located just south of 188th Street and is larger than ten acres in size.
17	SeaTac	This site is zoned for aviation operations/aviation business center uses and is roughly twenty acres in size.
18	SeaTac	The site is zoned for aviation business center uses and is somewhat larger than ten acres. It is located near smaller wetlands that would be affected by proposed Borrow Area 1. This site could be expanded to include existing wetlands to the west.
19	SeaTac	This site is zoned for medium density urban residential uses. It is located between Route 99 and Interstate 5 and is roughly ten acres in size.
20	SeaTac	This site is zoned for high density urban residential uses. It is located between Route 99 and Interstate 5 and is roughly ten acres in size.
21	SeaTac	This site is zoned for high density urban residential uses. It is located between Route 99 and Interstate 5 and is somewhat smaller than ten acres in size.
22	SeaTac	This site is zoned for aviation business center and community business center uses. It is located to the west of Route 99 near smaller wetlands that would be affected by proposed Borrow Area 1 development.
23	SeaTac	This site is zoned for urban medium and high density residential uses. This site is larger than ten acres in size and is located between Route 99 and Interstate 5. Sites 23 and 24 could be expanded into one large mitigation site.
24	SeaTac	This site is zoned for urban low and high density residential uses. The site is somewhat smaller than ten acres and is located between Route 99 and Interstate 5. Sites 23 and 24 could be expanded into one large mitigation site.
25	Des Moines	This site is zoned for single family residential uses. It is located just north of 216th Street, appears to be located in the same catchment as some smaller wetlands that would be affected by development of proposed Borrow Areas 1-3.

AR 036341

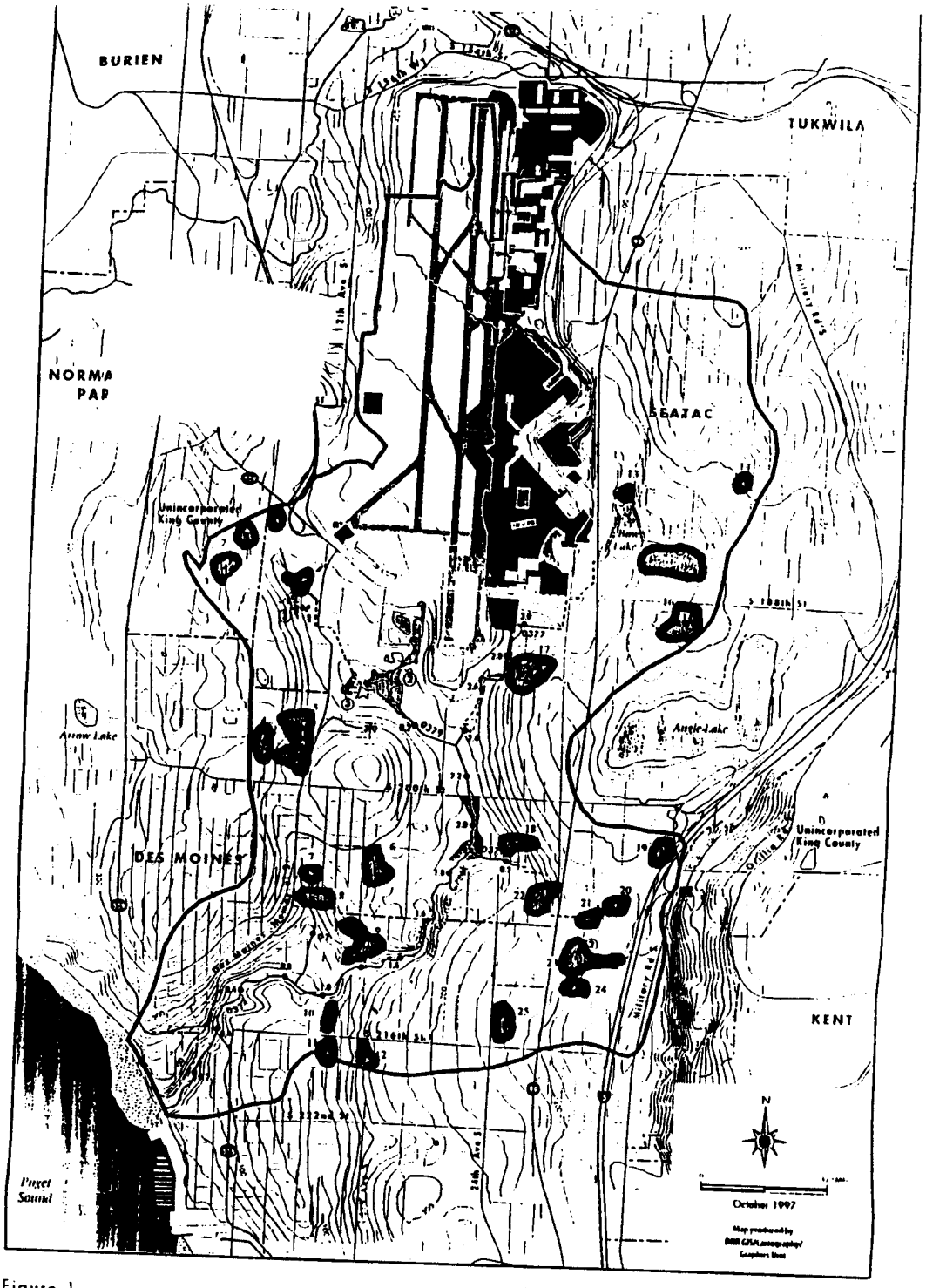


Figure 1

DES MOINES CREEK BASIN
Water Features

- Basin Boundary
- Stream
- Piped Stream
- 0377 Stream Number
- • 2.4 River Mile
- 20-foot Contour
- Incorporated Area
- Industrial Wastewater System
- Lake
- R/D Facility
- Wetland
- ② Wetland Rating (where available)
- 14 WETLAND MITIGATION SITE NO.

POTENTIAL WETLAND MITIGATION SITE *

□ = APPROXIMATELY 10 ACRES

BASE MAP FROM DES MOINES CREEK BASIN PLAN, 1997

* IN ADDITION TO MAPPED WETLANDS, CLEAR ZONES, & NOISE REMEDY AREAS

Seattle Community Council Federation
2511 W. Montlake Pl. East
Seattle, WA 98112

RECEIVED
22 APR 1998
POSTDATED
20 APR

April 20, 1998

U.S Army Corps of Engineers
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255
Attn: Jonathan Freedman, Project Manager
Re: Port of Seattle's Section 404 Permit Application to fill 11.42 acres of wetlands

Dear Sirs:

1 We are writing to urge you to deny the Section 404 Permit application to fill 11.42 acres of wetlands. The purpose of the Section 404 Permit is not to provide permits to applicants to fill wetlands whenever convenient, but to protect our existing wetlands from being filled or otherwise destroyed.

The Seattle Community Council Federation is a city-wide federation of community clubs, community councils, neighborhood associations, and similar groups in the City of Seattle. Seattle is heavily impacted in both positive & negative senses by the activities of Seattle-Tacoma International Airport (hereafter referred to as 'Airport' or 'Sea-Tac'). Seattle is the originating point for more personal & business passengers departing Sea-Tac than any other city, and it is the destination of more arriving passengers than any other city. Many of the residents that our members groups represent have a direct financial concern with the Airport, & with the costs that they incur, personally or in business, as the result of using it. All arriving & departing flights fly over Seattle residential neighborhoods. The aquifer underneath the proposed fill area is relied upon by the City of Seattle water supply system.

Our major points of concern are as follows:

2 1) These particular wetlands sit on the top of the hill and feed other wetlands and the watershed of several creeks that feed directly into Puget Sound. Filling this area of the wetlands system will have a substantial impact on other wetlands and watersheds, as well as Puget Sound. To fill in such a substantial wetland, as well as causing untold damage to other wetlands and streams is a major breach of the Corps mandate to protect wetlands.

2) We are concerned that, should a permit be given, the Port will rush to fill the wetland even though it does not have the necessary financing for the its project. If financing falls through, as seems likely, then a large wetland will have been filled and downhill watersheds ruined for nothing. In no case should the Corps issue any permits until all financing has been fully secured.

3

3) We are also concerned that the Port and the Corps appear to be negotiating this permit behind closed doors. Most citizens know little or nothing about the Corps or the process by which it makes this decision, who reviews it, what standards are used, who reads the public comment, how the agency replies to public comment, and who approves or disapproves the permit. Some of our communities are familiar with the Corps of Engineers' roll in Section 404, but most wonder what the agency better know for destroying natural wetlands and watersheds is doing here. Given the very poor quality of the Port's application (no examination of alternatives, no viable design for the replacement, replacement in a different watershed, etc.), granting the permit will feed public cynicism in a very unhealthy way.

4

4) No consideration has been given to alternative designs that could avoid the fill or reduce fill. In the Port's EIS for the airport master plan, their consideration of alternatives was based on their own needs, not on wetlands issues. No consideration was given to alternatives creating replacement wetlands in the same watershed.

5

Indeed, the Port's EIS on the airport masterplan failed to examine the impacts of filling, relying on the NPDES permit process to cure all the of damages to Miller Creek, Walker Creek, Des Moines creek and Puget Sound that would be created by the Section 404 permit fill. However, the Corps would be unwise to rely on the NPDES process to cure the problems created by filling the wetland. There is a sorry history of sloppy permitting and failure to comply with permits. The last time the Port was issued and NPDES permit, it was appealed for lack of stringency, and the appellants substantially prevailed. Thereafter, the Port was found to be in violation of that more stringent permit and paid a heavy price for those violations. The NPDES permit issued by DOE this spring is also under appeal for stringency. We have every confidence that the appellants will also prevail in this instance.

5) We do not believe that recreated "replacement" wetlands—especially of this large size—can be shown to be viable, nor has the Port given any serious thought to the replacement's design and maintenance. How many replacement wetlands of this size have been attempted? What has been the success rate? What are the criteria for success? How is that success monitored? How long have the wetlands been sustained to date? Does the Port intend to maintain the replacement wetland? What happens if they fail?

6

6) Given all the downstream damage that will be created by this fill, it is particularly wrong to build the so-called replacement wetlands in another watershed in another city. The communities surrounding the airport have enacted ordinances that require wetlands to be replaced in the same watershed. Corps regulations do not allow it to issue permits that do not receive stand and local authorization. This alone should cause the permit to be denied. We are particularly concerned that federal agencies not ignore local ordinances that are designed to protect the environment under the guise of "protecting the environment" on a federal level.

7

7) The Port has rather vaguely claimed that wetlands need to be filled because of bird "problems" near the airport. However, the FAA's own documents show that there are no significant bird problems near Sea-Tac now. The FAA has testified even more vaguely that the fill "would not conflict with their regulations." We have examined FAA Advisory Circular AC No: 150/5200-33. The reason it won't conflict with FAA regulations is because those regulations do not exist. This circular does not require filling in wetlands to prevent bird strikes. It recommends that "when expanding existing airports in or near wetlands, the wildlife hazards should be evaluated and minimized through a wildlife management plan prepared by a wildlife damage management biologist, in consultation we with the U.S. Fish and Wildlife Service and the U.S. Army Corps of Engineers"—a recommendation the Port has apparently not accepted because no such plan is available. Even if this wetland is filled, there will be other nearby wetlands to the airport.

8

8) The proposed fill area would overlie a major aquifer relied upon by the City of Seattle. We recommend to the Corps that they compare the permit they are being asked to issue with Appendix Q in the Airport Masterplan EIS, especially with regard to the intermediate aquifer. Furthermore, it should consult with the Seattle Water Department and read the 1990 Report by the Water Department on the aquifer.

9

9) We are not familiar with the statute, regulations, guidelines, handbooks, and so on under which this permit is evaluated. But the District Engineer stated at the public hearing on 9April that 'public benefit' is a criterion. The only 'public benefit' claimed for this project is the reduction of 'delay' (undefined) at the Airport. This claim has been much criticized. The newest group of critics is major air carriers now using the Airport, who have responded to a pending request by the Port of Seattle for use of passenger head tax ('passenger facility charges', or 'PFCs'), by noting the insubstantial nature of the 'delay' justification. We believe that reviewers in the Corps of Engineers should secure the full texts of the responses by the air carriers, rather than relying on paraphrases & partial quotes as found in Section C (Tab C) of the Port's application to the Federal Aviation Administration, or our paraphrase. We have reviewed the paraphrases & partial quotes, which start in most relevant part on p. 6 of the applicant's "summary of substantive comments by air carriers", which is the last document in Section C of the document. We concur completely with the comments of Delta and United. If there is delay caused by circumstances at Sea-Tac, it is ill-defined, and not likely to be much improved by construction of the world's most expensive runway. While there is admittedly delay in commercial aviation, it springs from a myriad of reasons, many of them uncorrectable & almost all of them quite unrelated to any possible physical projects at Sea-Tac. Whatever delay there is, the costs of the Master Plan Update projects, and of the third runway in particular, and the damage to protected wetlands and streams, far outweigh any possible financial benefits that might be achieved from its construction. We concur also in Delta's quoted observation that the true costs of the projects are not stated completely. This is so not only as to the base costs but also, we believe, as to the cost of borrowed money, and also costs of mitigation of adverse impacts.

10

It is noteworthy that this analysis by the named airlines extends to financial benefit to the airlines themselves, even though the justifying documents prepared by the Port and the FAA

(EISes and the 'Record of Decision') claim (quite without documentation or even reasoned analysis) that there would be financial benefits to the airlines far outweighing costs to them. One should be inclined to believe the airlines on a matter like this, rather than project proponents.

The financial analysis by airlines, especially United and Delta, suggests that the overall MPU proposal cannot receive needful support from Sea-Tac air carriers in terms of new long-term lease agreements, from which it follows that the financing strategies adopted by the applicant have already failed.

We hope you will consider our comments and deny this permit.

Sincerely,

Jorgen Bader
President

April 9, 1998

Candy Corvari, CASE Co-President and mother.

I come here as a concerned citizen, a voice that will speak the truth on behalf of CASE. We are engineers, accountants, lawyers, teachers, parents, and grandparents. Just like any other community but we have something no other community has to experience. The loss of quality of life, our health, environment, and our children's education.

I'm sure you all are aware of the definition of hearing - a session for listening to arguments or testimony, and that the definition of hear is to listen to attentively, to learn by hearing. That is why we all are present, tonight. To listen and to learn.

The Port speaks of the public need for a 3rd runway. Yet they waste public money on $1,000 chairs, marble floors, and a stream running through their building. We need the streams running through our communities.

The Port's scope of work is generalized, some say manipulated. The Port says we have no alternatives. I say, yes we do. The Port cannot be trusted to know what is best for us. Please be our mediator and have focus on the work and not the Port's scope of work that is driven by ego and greed without a clear vision of our environment.

What I don't understand is – to have compassion for a subject or point of view, you have to be directly affected. I think it's ironic no port official lives in any directly affected community like Normandy Park, Burien, or Des Moines.

I'm very concerned with habitat degradation. Specialists say that our aquifers are all connected. That the peat bogs and wetlands are our kidneys. I say we need healthy kidneys and that we have to be very careful because the Port is the CANCER that would destroy our wetlands.

We love our community and want to see the our habitat be preserved.

1 What is going to happen if all that fill is placed on the aquifer? The weight of the proposed fill will cause springs to erupt god knows where.

2 Is there a bottom to the peat bogs? If the Port doesn't know, then how much more fill is required at what cost?

3 US Fish & Wildlife stated wetlands have to be replaced in the same area, isn't that what the Corps recommends as well? How is making wetlands in Auburn help us? Our children? Our habitat?

(1)

4 What about seismic anomalies and faults that run under the existing airport? Are they testing or proposing test to determine what will happen to all the proposed fill in an earthquake?

5 What is going to happen with the proposed stream removal? The Port plans say there will be significant silt runoff and sedimentation problems during construction. What is significant? How much damage or permanent losses? What happens to shell fish, eel grass when this hits Puget Sound? How will all of this affect the eagles, blue herons, frogs, fish, and other aquatic life?

6 If the wetlands are removed, it reduces the aquifer recharge therefore there will be less drinking water. We'll have to drink bottled water and what does that cost.

I happen to believe if we mess up our wetlands and streams and let the Port of Seattle pipe the runoff directly into the Sound w/o the natural filtering system, we will be facing a whole other issue in the future.

7 If they fill the wetlands, so far there is not enough fill and what they do have is from contaminated fill sites like Maury Island and the arsenic laced fill from the site there. These contaminates will end up in the aquifer and pollute our drinking water supplies. Bottom line is the Port wants to destroy something that can't be replaced.

8 And to think all of this could be avoided because we have feasible alternatives. Don't you think it's ironic that we, as unpaid, educated citizens have solutions for the Port? But they aren't open to our suggestions.

- GPS
- Other sites costing less money and in less populated existing airports
- High speed rail
- Mag/lev to Moses Lake

My children are here tonight and as a mother, I'm concerned about their health and welfare. What happens to them if the water is polluted, the air is polluted, and the classrooms are continually polluted by noise? What legacy am I leaving for them. We all, all of us in this room are supposed to be stewards of the land, the environment. What kind of steward ruins, destroys the environment for the sake of a few egos, for greed, for money, for power?

It is time to stop this madness, that we can no longer go around raping the land and not pay the price for it. It is time to stop the immoral acts of the Port. It is time to save our wetlands, for their ability to purify our drinking water and our streams.

Deny the Permit, Deny the Port and restore our faith in government. Do not bow to financial interests and politics. Bow to the law of the land and our right to a clean, safe environment. Save our water and save our wetlands.

(2)

2B-1

The Boeing Company
P.O. Box 3707
Seattle, WA 98124-2207

April 2, 1998

Mr. Jonathan Friedman
U.S. Army Corps of Engineers
Seattle District
PO Box 3755
Seattle, WA 98124-3755

Dear Mr. Friedman:

BOEING

The Boeing Company has reviewed Sea-Tac Airport's Master Plan Update Final Environmental Impact Statement (FEIS) and Supplemental EIS, as well as the Port of Seattle's proposed wetland mitigation plan. We appreciate the opportunity to submit our comments concerning the improvements at Seattle-Tacoma International Airport and their impact on area streams and wetlands.

As we commented in 1995 concerning the Draft EIS, the Boeing Company commends the FAA and Port of Seattle for the depth of analysis and environmental enhancement reflected in the proposed improvement plan at Sea-Tac. We believe that the studies conducted concerning Sea-Tac and the third runway reflect an unparalleled and exhaustive evaluation of the environmental conditions and impacts. Once undertaken, the new parallel runway will enable the Puget Sound Region to implement the alternative that is least disruptive to our natural resources and is the least costly.

The data indicates that currently, during poor weather, Sea-Tac is required to operate with a single arrival stream, causing significant delays to arriving passengers and commerce. As our region grows and demand for air travel increases, this constraint will only exacerbate our air travel conditions. To address these aviation needs, the Port proposes to develop the third parallel runway as well as expand terminal and roadway systems, which will require the filling of about 12 acres of wetlands. Their proposed mitigation balances the aviation needs with safety requirements of the airport. In doing so, the Port proposes to mitigate in the airport watershed for hydrologic functions provided by the affected streams and wetlands. Wetland habitat functions will be mitigated on land that the Port recently acquired in the Kent valley, outside the basin, due to wildlife and aircraft conflict concerns. In light of recent wildlife attraction issues, and particularly the potential risk that bird strikes represent to safe flight, we support and applaud this approach to mitigation.

We strongly encourage you to promptly process the Port's permit application to enable this essential airport expansion project to proceed as quickly as possible.

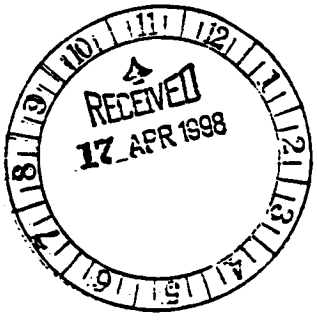
Sincerely,

Elizabeth Warman

Elizabeth Warman
Manager, Local Government Affairs

Alaska Airlines

APRIL 9, 1998



2B-2

U S ARMY CORPS OF ENGINEERS
Seattle District

REGULATORY BRANCH
POST OFFICE BOX 3755
SEATTLE,WASHINGTON 98124-2255

CAPT.HENRY GRESHAM
ALASKA AIRLINES
P. O. BOX 68900
SEATTLE, WASHINGTON 98168-0900

MR. JONATHAN FREEDMAN,

My name is Capt. Henry Gresham and I represent the Flight Safety Dept. of Alaska Airlines. I have been with Alaska Airlines for almost twenty years and I have been flying for nearly thirty years.

First of all I'd like to thank you for all the time and effort you have spent on this project. Your work is invaluable and your talents are greatly appreciated.

I want you to know that we at Alaska Airlines vigorously endorse the application of Section 404 of the Federal Clean Water Act. Our endorsement comes because we believe it strikes the best balance between community concerns, environmental needs and those of industry.

Our reasons for supporting this 404 proposal are two fold:

A) It makes sound environmental sense to create a permeate wetlands away from the airport operating area. This for the safety and preservation of the wildlife.

B) We at Alaska Airlines have a mandate from the Federal Aviation Administration and the Flying Public to help create the safest airspace in the world. This public trust cannot be over looked. By relocating the wetlands away from the airport environment you will be helping to reduce the chances of hull damage to the aircraft and there by reducing the risk of personal injury or worse to our passengers and crews.

Toward that end, we are asking for your help in seeing that this proposal be given every possible chance for approval.

Thank you for your time and the opportunity to address this review committee.

Sincerely,

Capt. Henry Gresham

CAPT. HENRY GRESHAM

BOX 68900 SEATTLE, WA 98168-0900/206-433-3200

Yes! 3rd Runway!

2B-3

Lewisco

575 South Michigan St.
Seattle, WA 98108

(206) 768-1000
Fax: (206) 768-9998

John C. Lewis, Sr.
President

Against the Plan

US Army Corp E. Reg Br.
PO 3755 SEATAC WA 98124-3755
Att: Mr. Jonathan Freedman, Project Mgr
Ref: Sea Tac 3rd Runway

Gentlepeople! Let's get on with the Program!!
There'll always (unfortunately) be nay-saying
drop their best to stop safety improvements
but we must push on. The 3rd runway
is desperately needed, the Environmental
Impact Statement is adequate.

Thank You. (heavy taxpayer)
John C. Lewis, Sr.

Pilot-Aircraft owner
member 13 Conservation
Organizations

John C. Lewis, Sr.
575 S Michigan St.
Seattle, WA 98108

Sun Valley Airlines
LEARJET SERVICE

[illegible] Field International
6[illegible] Perimeter Road South
Seattle, WA 98108

Reservations: (800) 726-5772

Jack Lewis
Command Pilot

SEGALE BUSINESS PARK
A LIMITED PARTNERSHIP D/B/A TRADE NAME

April 9, 1998

U.S. Army Corps of Engineers
Regulatory Branch
Post Office Box 3755
Seattle, Washington 98124-2255
ATTN: Jonathan Freedman, Project Manger

Washington State Department of Ecology
Permit and Coordination Unit
Post Office Box 47600
Olympia, Washington 98504-7001
ATTN: Tom R. Luster, Environmental Specialist

Re: Port of Seattle
Seattle-Tacoma International Airport
96-4-02325

Ladies and Gentlemen:

Thank you for holding a hearing to receive public comments on the proposal of the Port of Seattle to fill approximately 11 acres of wetlands on the west side of Sea-Tac Airport to construct the third runway.

We support issuance of an U.S. Army Corps of Engineers Section 404 permit and the related Washington State Water Quality Certification for the proposed construction.

We are aware of several wetland construction and improvement projects involving Corps permits, and we recognize that the Corps of Engineers is very thorough in its approach to issuing Section 404 and other permits concerning wetlands. We have every confidence that the authorization to fill wetlands and the related requirements to perform mitigation will be carefully reviewed and that environmental impacts will be given proper consideration.

We understand in this situation that mitigation and replacement of wetland acreage which would be lost if the project goes forward, will not occur in the same watershed. We believe wetlands should be replaced in the affected drainage basin, but in this case, the safety of aircraft and

PO Box 88028 • Tukwila, WA 98138-2028
15000 Andover Park W • Suite 200 • Tukwila, WA 98188-4798
Telephone 206 575-2000 • Fax 206 575-1837

passengers must also be considered. The Sea-Tac International Airport is where it is and as a community we must focus on meeting the needs of our growing region while at the same time preserving our environmental amenities. We believe the proposal strikes this delicate balance.

While the proposed mitigation may not be "ideal", we understand it has been the subject of careful and coordinated planning among the Port of Seattle and regulators. We support the completion of proposed mitigation measures within the Miller and Des Moines Creek Basins to the extent they are practicable (such as buffers along both sides of Miller Creek, and relocation of a portion of Miller Creek). We also support the plan to replace the 11 acres of low value wetlands to be lost as a result of construction with higher value wetlands and forested buffers on the Green River. The combination of work within the affected watershed and outside it will undoubtedly benefit the environment. Preserving small, isolated and heavily disturbed wetlands with lower functions and values does not seem to us a preferable alternative to allowing the appropriate permits to be issued for the project with their related wetland mitigation and other regulatory requirements which will provide environmental protection and benefits.

With respect to the necessary Water Quality Certification, we support its issuance with the understanding that the Department of Ecology will impose conditions it deems appropriate to accomplish the goals of the process.

In conclusion, we believe the Port of Seattle's proposal is both reasoned and reasonable under these circumstances and if the permits are issued, the proposal will serve the public interest. Therefore we urge the Corps of Engineers and the Department of Ecology to issue the necessary permits so the proposed work can proceed.

Thank you for considering our comments.

Very truly yours,

SEGALE BUSINESS PARK

M. A. Segale

Architecture
Interior Architecture
PGAL
Engineering
Planning

14 April 1998

US Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, Washington 98124-2255

Attention: Jonathan Freedman

re: Sea-Tac International Airport
Proposed Third Runway Project

Dear Mr. Freedman:

In 1997, I was the Project Director of a consultant team retained under a State of Washington grant to study the potential impacts of the proposed third runway project at Seattle-Tacoma (Sea-Tac) International Airport. A final report - *Sea-Tac International Airport Impact Mitigation Study: Initial Assessment and Recommendations* - was prepared and submitted to various public agencies, including the cities of Burien, Des Moines, Federal Way, Normandy Park, and Tukwila, the Highline School District, and the State of Washington (specifically the Department of Community, Trade, and Economic Development).

It is my understanding that the COE is studying the proposed third runway project with regards to the supporting earthen berm and the wetlands in the project vicinity. I would like to call your attention to some of the findings from the consultant team.

WETLANDS

The environmental consulting firm on the project - Raytheon Infrastructure Services, Inc. (Denver, Colorado) - raised some questions regarding the relocation of area wetlands. Specifically, the question was raised as to why the wetlands were being relocated to another watershed (in Auburn). This appears to be in conflict with EPA and COE regulations to relocate wetlands within the same watershed.

A determination should be made regarding the applicability of FAA, COE, and EPA regulations in this instance. With the associated bird activity that accompanies most wetlands, FAA, COE, and/or EPA should determine the trade-off between the preservation of environmental integrity versus the potential for bird strikes.

It appears prudent to require a separate Environmental Assessment or an Environmental Impact Statement be submitted regarding the relocation of the existing wetlands for the proposed third runway project. The EA or EIS should detail the specific potential impacts of the project, along with measures to be implemented which sufficiently address those impacts.

EARTHEN BERM

The consulting team had several concerns regarding the supporting berm for the proposed third runway project. The size, height, and amount of imported fill material necessary for this project raised some questions as we studied the project:

2 • **Seismic Potential** - Considering the seismic potential of King County and the Seattle metropolitan area, there is a concern regarding the earthen berm's potential for movement and subsidence. A minor earthquake event could cause significant shifting and spreading of the earthen berm base. A constructed retaining wall system may need to be considered in order to assure that compacted fill material does not slide or shift over time.

3 • **Slide Potential** - Given the recent rain events in King County, there have been a significant number of slides especially in the western and southwestern portion of King Count. Again, a retaining wall system should be considered in order to protect nearby homes and businesses.

4 • **Stormwater Run-Off** - Another concern is the increase in storm water run-off amount and rate. The runway itself will increase the amount of impermeable surface in this portion of the County, thus increasing the run-off amount. It is recommended that any stormwater run-off associated with the proposed third runway project be contained on-site with an appropriately-designed storm water drainage system. However, stormwater that is located on the outside face of the earthen berm will have a greater run-off velocity due to the increase in slope. Sufficient measures must be taken to assure that downstream homes, businesses, and properties are not inundated by this increase in run-off velocity.

As with the wetlands, it appears prudent to require a separate Environmental Assessment or an Environmental Impact Statement be submitted regarding the earthen berm for the proposed third runway project. The EA or EIS should detail the specific potential impacts of the project, along with measures to be implemented which sufficiently address those impacts.

If there are any questions regarding this information, please feel free to contact either myself (214/880-0100) or the City of Burien (206/248-5515). Thank you for the opportunity to comment on this project.

Very truly yours,

Joseph A. Pobiner, AICP
Associate Principal
Director - The PGAL Planning Group

Alaska Airlines

2B-6

April 16, 1998

Mr. Jonathon Freedman
U.S. Army Corps of Engineers – Seattle District
Federal Office Bldg., Suite 200
909 First Avenue
Seattle, WA 98104-1000

Dear Mr. Freedman:

I write to you on behalf of Alaska Airlines, a Seattle-based carrier that serves more customers at Seattle-Tacoma International Airport than any other airline. We have served this community since the 1940s, and currently employ more than 4,000 people in the Puget Sound region.

We work hard to make Alaska the preferred carrier among travelers, as well as a desirable place for employees to earn their livings. We also take great pride in being a good neighbor in the communities we serve. The accelerated retirement of our noisy B727s and the recent $10 million hush-kitting of our B737-200s are examples of how we strive to be thoughtful members of the community. Our long-time support of the Nature Conservancy in Washington, Oregon and Alaska – coupled with our company-wide emphasis to reduce consumption of the chemical products that are used to maintain aircraft and equipment – offers insight into the seriousness with which we view environmental stewardship.

With that as a backdrop for who we are as a company and culture, we are pleased to support the Port of Seattle's application for a 404 permit to conduct its proposed wetlands mitigation project. As you know, this project is necessary to build the Third Runway, which is vital to the long-term economic health of our region, and needs to start moving now toward completion.

But more than that, the proximity of the current wetland to the airport is less than ideal for aviation safety because the site attracts waterfowl. Large birds – and especially flocking birds – pose serious threats to aircraft. One of our MD-80 aircraft was severely damaged earlier this year at Sacramento when a bird was sucked into an engine. And the Air Force lost an AWACS 707 in Anchorage when it flew into a flock of birds; everyone aboard was killed. Those are just two examples. For a broader overview of the hazards – and very clear parameters for mitigating them – I urge you to read the FAA's advisory circular *Hazardous Wildlife Attractants on or Near Airports*.

For safety reasons alone, we strongly recommend your approval of the Port's request. When you add to the mix the Port's ambitious mitigation plans for the Miller Creek basin, you've got what we consider a model example of sound public policy.

Sincerely,

Paul A. Majer

Paul Majer
Assistant Vice President/Chief Pilot

BOX 68900 SEATTLE, WA 98168-0900/206-433-3200

ROSE CLARK
16856 Des Moines Memorial Drive
Burien WA 98148
(206) 248-3965

U. S. Army Corps of Engineers
Seattle District, Regulatory Branch
Post Office Box 3755
Seattle WA 98124-2255
(206) 764-3495

April 5, 1997

Dear Sir:

Thank you very much for holding this public hearing. It speaks well of you that you are willing to listen to the public whose community will be so negatively impacted by future Port of Seattle expansion projects.

The Port of Seattle is seeking permission to destroy wetlands in the City of Sea Tac immediately south of SR 518. They also seek permission to mitigate the loss of these wetlands in an entirely different watershed in the City of Auburn some twenty miles away.

1 It is interesting to me that they are finally asking permission to destroy wetlands and their affected streams when they have been doing so for years. For many years they have slowly degraded the streams in this area with runoff from the existing runways. The resultant pollutants could have been prevented had the Port of Seattle built a modern, reliable water treatment plant to separate the pollutants. A grassroots organization called CASE has sued the Port several times in the last few years because of this neglect and has prevailed each time.

2 Additionally a Port of Seattle project to build something as ordinary as a parking lot did not have proper safeguards for area streams. On September 17, 1997, October 30, 1997, and on November 5,1997 there were again discharges into Miller Creek with negative impacts felt all the way to Normandy Park where Miller Creek empties Puget Sound.[1] How will mitigating the problem in Auburn help events such as these?

3 The firm of Lonestar Northwest, a Japanese firm, is seeking to upgrade its 1970's era permit for gravel mining on Maury Island[2]. They seek to remove 7.5 million cubic yards of gravel per year for three years. This gravel is only suitable for fill. It is estimated that this fill contains about three times the normal amount of arsenic. While the removal of this fill from atop the 50ft. deep aquifer on Maury should require your attention, it deserves your attention as potential fill to cover these Sea Tac wetlands also. The loss of these wetlands, and streams, will likely cause the water to surface somewhere else. What will the arsenic in the fill do to remaining wetlands, waterfowl, and animal

[1]Port of Seattle Memorandum Item No. 8d, Feb. 24, 1998
[2]Vashon Island Community Council Minutes, Dec. 3, 1997 re. presentation by Lonestar Northwest

life? Again, how will allowing mitigation to occur in Auburn help the health of the streams that flow through Sea Tac, Burien, and Normandy Park?

4 The Port of Seattle admitted in its Environmental Impact Statement that filling wetlands will mean more sediment, deicing chemicals, and heavy metals will reach both Miller and Des Moines Creek. They ignored Walker Creek. Admittedly these substances will harm aquatic life in these streams and will violate state water quality standards. This enlarges the problem significantly beyond the mere filling of wetlands near SR 518. Enhancing a wetlands in Auburn will not help this. The solution for

5 the existing runway configuration and its problems and for future construction and the anticipated problems is to insist that the Port of Seattle build a water quality treatment plant onsite to prevent these extremely negative impacts before they occur.

6 With my own eyes I have seen salmon in Miller Creek within the confines of the City of Sea Tac swimming upstream towards the wetlands under discussion here. The salmon are not merely passing through to some other body of water. They are already near the source of the streams when they enter the City of Sea Tac. Obviously they will try to spawn. How will this be impacted by filling wetlands and by allowing continued future contamination of the remaining streams due to negative impacts the Port of Seattle admits will take place probably forever after?

7 The Federal Aviation Administration regulations seem to say that a runway cannot be built within 10,000 ft. of a wetlands. Is the need to fill the wetlands a spurious need? Is it more likely the runway project should be moved? Fifty of our busiest airports are near waterbodies. Perhaps the runway should find a home elsewhere, not the wetlands. Then we would be saving our wetlands, saving our water. I repeat that today with our dwindling water supplies we need to save our wetlands, save our water.

8 Why? These wetlands and streams are integral to the health of our aquifer. This is the source of drinking water. Today the Seattle Water Department pumps from this aquifer. With the intense growth predicted in the Puget Sound area, the Seattle Water Department has warned local water districts in the Cities of Sea Tac, Burien, and Normandy Park that they may have to find an alternate source of water. If that alternate source of water becomes our own wells on the aquifer under our feet, it would be nice if it were found to be clean, unpolluted water. Mitigating the loss of these wetlands in Auburn, and allowing stream and wetland pollution to continue will not insure a clean water supply in the future for our cities.

9 The Port of Seattle would fill in a wetlands in the City of Sea Tac, but create a wetlands in the City of Des Moines. The Port seeks to take 9 million cubic yards of dirt from barrow pits in Des Moines. These gaping holes, on Des Moines Creek, located next to existing wetlands, will themselves become wetlands. How is the Port of Seattle going to insure that waterfowl does not call these newly created wetlands home thus becoming the same sort of danger to aircraft the Port of Seattle insists is poised by the waterfowl located today in the wetlands in the City of Sea Tac? No matter where the wetlands is, or how natural, waterfowl are the same; they fly up and down.

10 We demand an extensive EIS on the repercussions of filling existing wetlands and creating future wetlands. This EIS should also address the documented evidence pertaining to danger of waterfowl,

and indeed birds to aircraft.[3] Just how often do planes crash because of birds. Are aircraft engines so fragile? How do fifty other airports located next to waterbodies handle the situation? What other waterbodies will need to be filled in if this interpretation of FAA rules is correct: Lake Burien, Arrow Lake, Angle Lake to name a few? Will all of these potential fills also be mitigated in some other watershed? Why are not these waterfowl residing the above mentioned waterbodies a threat to aviation?

People have long located in this area because of its natural beauty. For those who live in the cities of Sea Tac, Burien, Normandy Park and Des Moines it is not enough to know that the wetlands are being "restored" in Auburn. Why should we have to drive to Auburn to enjoy seeing the ducks and hearing the frogs?

We ask that you insist that mitigation for streams and wetlands already damaged by the Port of Seattle begin immediately on **those very streams and wetlands.** This should begin with the wetlands located in Burien from 168th St. S. to 176th St. S. along Des Moines Memorial Drive on the west to SR 509 on the east. This is a significant aquifer recharge zone and is the next most significant wetlands located south of the wetlands proposed for fill in the very same watershed. It is currently impacted so heavily that for the last few years it has not undergone the dry cycle a true wetlands enjoys. Indeed, it is encroaching today on private land. We demand that the Port of Seattle provide mitigation funds so that these wetlands can be restored to a natural state. This would be beneficial in the following ways: 11

- It would address the continuing health of the aquifer.
- A natural park would be created in which people could enjoy nature.
- Properly done it would be an educational park where people could learn about the relationship between a wetlands and the aquifer.
- People would see that wetlands are "nataure's kidney" and then see that "kidney" in operation.
- It could become a place for safe educational field trips for area students.
- The nearby streams could be a place where local school children could plant fish in an effort to restore that which is about to become extinct thanks in part to ill-planned projects such as the Port of Seattle.

There are a number of other wetlands within the Miller Creek and Des Moines Creek watersheds that could benefit from enhancement and restoration.[4] The Port of Seattle has not provided a good explanation of why these locations in the affected watershed cannot be used to replace lost wetlands. 12 **Destruction of these wetlands is contrary to local regulations and the interest of the surrounding communities whose populations jointly exceed 100,000 people.** Replacing wetlands in ;the watershed is critical in this case where the watershed already is suffering from wetlands lost over the past twenty to fifty years.

Also the Corps may not issue a Section 404 permit if there are design options that would cause less damage to wetlands and streams. The Port of Seattle has not examined or presented design options 13 which could save wetlands. Indeed, a lot of the environmental problems have not been adequately addressed by professionals within those disciplines. There seems to be a lot of verbage concerning

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[3]City of Des Moines letter to Dept of Fish and Wildlife dated March 30, 1998
[4]U. S. Environmental Protection Agency letter to Army Corps of Engineers dated Feb. 3, 1998

envorinmental impacts written by Port of Seattle Planning Staff with "pie in the sky" ambivalent attitudes towards the environment.

Nowhere in the Port of Seattle Environmental Impact Statement has the subject of the weight of 15 Kingdoms of fill, which if four times the amount of dirt for Grand Coulee Dam, and if mounded would be higher than Mt. Rainier been addressed. Neither has it location next to significant seismic faults been addressed. This weight on top of an aquifer could cause porosity. This could cause streams and/or little creeks to "erupt" elsewhere in backyards, under houses, or even under roads. This weight could also cause isostasy, a shifting of weight on the earth's plate, causing seismic occurrences or making those natural seismic occurrences more intense. Allowing this wetlands to be filled could be the beginning of this process. No amount of mitigation in Auburn would compensate for this.

In conclusion, I respectfully request that you deny the Port of Seattle application to fill these wetlands and mitigate the impacts in Auburn. I further request that you undertake your own study as to the negative impacts to wetlands/streams caused by existing airport operations and require their mitigation onsite immediately. In short I am asking that you save our wetlands, save our water. Water, after all is more important to life that building a runway in an inappropriate location.

Respectfully yours,

Rose Clark

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA

Item No. 8d
Date of Meeting 2/24/98

DATE: February 12, 1998

TO: M. R. Dinsmore, Executive Director

FROM: Earl Munday, Project Manager

SUBJECT: Request for Port Commission ratification of award of a purchase order for rental of equipment used for emergency control of turbid water discharge at the North Employee Parking Lot

BACKGROUND

In July 1997, a contract was awarded to Scarsella Brothers to begin construction of the North Employee Parking Lot (NEPL) Grading project. On September 17, 1997, there was a discharge of turbid water to Miller Creek caused by the NEPL contractor's inadequate temporary erosion and sediment controls (TESC). The contractor and the Port immediately implemented additional TESCs. On October 4, 1997, there was an additional discharge of turbid water to Miller Creek. Again additional TESCs were implemented. On October 30, 1997 there was a sediment discharge to Lake Reba.

During October, Parametrix (an environmental consulting firm) and the Port designed a chemical and filtration system to eliminate potential future discharges. Three firms were contacted to get quotes for supplying the equipment necessary (the equipment is very specialized and is only available locally from these three firms). One firm contacted was unable to supply the necessary equipment in a timely manner, and another firm did not have all of the equipment necessary (and was much higher priced in the equipment that they did have). On November 5, 1997 a purchase order was signed with Rain for Rent.

In January, the three firms were again contacted for availability of equipment and costs. The first firm now had equipment available for chemical treatment, but not for filtration. The cost for the chemical treatment equipment was similar to Rain for Rent, except an initial set-up charge of $20,000 (already paid for with the Rain for Rent equipment) would be required. The second firm did not respond to the request for a bid. Rain for Rent agreed to reduce their existing costs by 15%.

On February 6, 1998, the Executive Director declared that an emergency existed due to the environmental liability that might be involved if another discharge of turbid water should occur.

SCOPE OF WORK

Provide two chemical treatment systems consisting of four 20,000 gallon Baker type chemical treatment tanks and associated pumps, plumbing, and surface piping. Provide one sand filter system and a micron filter for Lake Reba. Systems to be rented continuously until the NEPL project is complete (estimated July 1998) unless found to be unnecessary.

FINANCIAL IMPLICATIONS

The preliminary cost estimate and source of funds for this rental of equipment is shown below.

Cost Estimate

The total cost to rent this equipment is anticipated to be about $50.000 per month for the next six months for a total future cost of $300.000. Cost expended to date has been about $200,000. Therefore total cost of equipment from Rain for Rent is expected to be about $500.000.

Source of Funds

Funds will be obtained from the approved project amount authorized by the Commission for the construction of the North Employee Parking Lot. The construction contract on the grading phase of the project was under budget by approximately $300.000 including change orders. The remainder will come from contingency budget.

PROJECT SCHEDULE

The equipment is currently rented and rental will continue until it is no longer needed. It is anticipated that the need for rental will exist until the North Employee Parking Lot Improvements project is complete in July 1998.

REQUESTED ACTION

Request for Port Commission ratification of award of a purchase order for rental of equipment used for emergency control of turbid water discharge at the North Employee Parking Lot.

Minutes of the December 12, 1997 General Meeting of the Vashon-Maury Island Community Council

Minutes By Fax: There is no postal mailing list for minutes, but if you have a fax number that is a local call from Vashon and would like to receive the minutes by fax, please fax your request with your name and fax number to Joshua Putnam, Clerk, at 463-6596. You will receive preliminary minutes as soon as they are typed up. (Note that minutes are not official until presented/corrected/approved at the next General Meeting. Final minutes are available at the Vashon Library)

I. The meeting was called to order at 7:35PM, Craig Beles presiding.

II. The Treasurer reported balances of $93.33 checking, $2,478.47 savings.

III. Ronald Summers of Lone Star NW presented the company's positions regarding proposed expansion of their gravel pit on Maury Island.
- A. They have not yet applied for permits for the expanded use of the pit.
- B. They have not had any major marine operations at the pit since the late 1970s, and have not completed an environmental update since then, either. An updated environmental review is needed regardless of whether the pit is expanded to provide fill for the third runway project.
- C. The company would prefer to avoid a full Environmental Impact Statement, even though it intends to complete all the studies needed for an EIS. They prefer to be able to hire environmental reviewers they know and trust, rather than put the work out to the lowest bid through the County's process.
- D. The third runway project will be included as a worst-case scenario in their environmental review, but there are other large projects around the Sound that the pit may be used for.
- E. Large marine barging projects can run 24 hours a day for up to a year, while the third runway project would run even longer.

IV. Sharon Nelson presented her Committee's position on permitting for the expanded use of the pit.
- A. The Committee is not opposed to expanded use of the pit, but wants a full Environmental Impact Statement, not a pro-forma renewal of the existing permit.
- B. Many significant community concerns are not addressed in the existing permit project description. These concerns need to be addressed by competent, independent environmental reviews.
- C. Greg Nickels has endorsed the call for a full EIS for expanded use of the pit, and has requested Ron Sims to do the same.
- D. The community is skeptical of company-controlled environmental studies. The public process of an EIS is important, not just the quality of the science.

V. Major Norton of the King County Sheriff's Department presented updated crime and police activity statistics for the Island and the precinct as a whole.

VI. Fred Hansen requested that his motion to endorse firearms safety education in Vashon schools be recalled from Committee and be put to an immediate vote. The procedure for overruling the Board on the handling of a Motion requires a 2/3 vote of Council members present.
- A. Fred Hansen said there was nothing controversial about the motion, and it does not require any further study. It does not mandate any action on anyone's part, and does not endorse any specific safety program. It simply endorses the concept of teaching children basic safety skills.
- B. The request was put to a vote of the general membership and passed.
  1. Aye 41, Nay 4, Abstain 11
- C. The Motion was brought up for debate.

Minutes of the December 12, 1997 General Meeting of the Vashon-Maury Island Community Council

1. Some members expressed concern that the Community Council would be stepping on the toes of the School Board.
2. Others noted that the Community Council has repeatedly endorsed or requested actions from other government agencies and businesses that are beyond our control. This is not a demand, just an endorsement of the concept.
3. The Motion was put to a vote and passed.
   a) Aye 34, Nay 2, Inappropriate 2, Abstain 8

VII. Dale Goforth's Motion requesting priority loading for Postal Service vehicles on Vashon ferry runs was brought up for debate.

A. Craig Beles noted that the Motion was originally accepted in error: Mr. Goforth is not a resident of the Island, and is ineligible to make motions to the Community Council. Because there were several people willing to second the motion when it was introduced, however, it is clear that the Motion could have been properly made and seconded by Island residents, so the original error is harmless, and the Motion will be considered valid.

B. As noted in the Motion and accompanying letter, the USPS has occasional scheduling difficulties when their trucks are delayed.

C. Ed Johnson of the WSFS noted that the current WAC already allows priority loading for postal vehicles on the Mukilteo-Clinton run.

D. There is a complete review of preferential loading under way, which may produce significant changes. This will be the subject of separate public meetings.

E. The Motion was put to a vote and passed.
   1. Aye 28, Nay 3, Inappropriate 0, Abstain 2

VIII. The Public Safety Committee reported that safety improvements at the North End are underway, and the County has agreed to implement the Community Council's Motion requesting the conversion of the downhill lane into a ferry traffic holding lane.

IX. The Land Use and Natural Resources Committee noted several developments.

A. The closure of the Puget Sound Energy office affects only the part-time clerk's position, not repair or dispatch services. Payments will be accepted at several local businesses.

B. Louise Miller has proposed a greatly improved telecommunications ordinance, much better than the pervious proposal.

C. The substantial increase proposed for Board of Health fees is to be decided Friday.

D. There is a Ferry Advisory Committee meeting scheduled for Southworth in January, and another one is planned on the Island.

X. There being no new business, the meeting was adjourned.

AR 036364

THE VASHON-MAURY ISLAND BEACHCOMBER 1 APRIL 1998

public forum to repeat unsubstantial charges.

We have full confidence in the integrity of the person accused by Deborah Anderson in the Y-Kids program. The program serves an important function in the community by providing safe and stimulating care for children. Our daughter will continue to attend Y-Kids without reservation on our part.

Marijke van Heeswijk and Tom DeVries.

Gravel

Lonestar plans needs EIS

Comparing the current Vashon Sand and Gravel operation to the proposed Lone Star operation is comparing an apple to whole barge loads of oranges.

Vashon Sand and Gravel mines about 60,000 cubic yards a year. Lonestar proposes up to 7.5 million cubic yards a year. More is not better when we are considering gravel mining on a small island.

Vashon Sand and Gravel contributes to the quality of life on Vashon Maury Island. Lonestar threatens the quality of life for humans and nonhumans.

Vashon Sand and Gravel operates only during daylight hours five days a week. Lonestar proposes to operate 24 hours a day seven days a week.

Noise from Vashon Sand and Gravel is well buffered by surrounding forest. Noise from Lonestar would be funneled toward Sandy Shores, Gold Beach and the rest of us on Maury Island, including users of the Maury Island Marine Park.

Vashon Sand and Gravel poses little threat to the shoreline habitat. Barging from the Lonestar site is potentially detrimental to the shoreline habitat and marine life.

The Puget Sound Environmental Atlas shows that the area southeast of Maury Island is a major eel grass bed. According to the Puget Sound Water Quality Authority's 1988 State of the Sound Report "eel grass provides food, substrate, and shelter for a diversity of organisms... eelgrass beds support 191 invertebrate species, 76 fish species, and 86 bird species."

Nearshore habitat loss is the greatest threat to the health of the marine waters of Puget Sound. Nearshore habitat has reached critically low levels, 33 percent of Puget Sound eelgrass beds are already lost.

The atlas also shows the area as a major geoduck resource. What will be the effect of the sediment and turbidity from loading barges at this site?

Puget Sound is an estuary of national significance. Protecting its biodiversity is more important than profits for a few.

Contact Ron Sims and Greg Nickels.

Urge that King County require an environmental impact statement to satisfactorily address concerns about Lone Star expanding gravel mining operations on Maury Island.

Pat Collier

City of Des Moines

ADMINISTRATION
21630 11TH AVENUE SOUTH
DES MOINES, WASHINGTON 98198-6398
(206) 878-4595 FAX: (206) 870-6540

FAXED 3-30-98

March 30, 1998

Mr. Bob Everitt, Regional Director
Department of Fish and Wildlife
16018 Mill Creek Blvd.
Mill Creek, WA 98012

Re: US Army Corps of Engineers Public Notice #96-4-02325; Port of Seattle

Dear Mr. Everitt:

Thank you for your prompt response of March 13 regarding the proposed filling of wetlands in Des Moines and Miller Creeks. I am afraid I did not adequately convey the critical and urgent nature of this issue. I would like to reemphasize that Des Moines Creek is in an extremely marginal state, particularly during the summer months. Low flows, reduced oxygen levels, and higher temperatures are at critical levels and in urgent need of remediation. The new multi-jurisdictional basin plan provides for this remediation and enhancement. Needless to say, the wetlands provide essential storage, recharge, and filtering functions for the creek. Any degradation at all of these wetlands would most likely destroy Des Moines Creek as a fish habitat. The destruction of Des Moines Creek is absolutely untenable and not acceptable. It would undermine over 30 years of local, state and federal policy regarding the rehabilitation of this creek and its habitat. It would be directly counter to recent state and King County initiatives to be proactive in enhancing salmon habitat.

You mention FAA concerns over bird habitat being created through replacement wetlands in the Des Moines Creek basin. Frankly, this is a cover issue behind which the FAA attempts to hide frequently in order to justify filling wetlands. When the cover is removed, the reality is that this is merely a policy *preference* of the FAA. This policy preference does not override national, state and local laws and policies regarding preservation of wetlands and the mitigation of any wetland loss within that specific drainage basin. There are thousands of airports, new and old, around the country that coexist with nearby wetlands. Also please bear in mind that the wetlands in Des Moines and Miller Creeks have coexisted for decades with the airport and the preference of the FAA to remove them does *not* supersede national and state law and policy for wetland preservation.

The enclosed letter from the EPA to the Army Corps of Engineers clearly outlines that it is possible for replacement wetlands to coexist with nearby airports. It takes some dedication and work by the FAA and the airport to properly design replacement wetlands and manage bird habitat. But, it can be and has been done throughout the country and the world. Even to my uneducated eye there are simple things that can be done such as using netting or wiring similar to what is used at state fish hatcheries to discourage bird concentration in nearby wetlands.

I would urge in the strongest possible terms that it is absolutely critical to require the Port of Seattle and the FAA to develop replacement and management plans within the same drainage basins as Miller and Des Moines Creeks. This can be done safely if the agencies concerned genuinely want to make it work. It is my understanding that one of the major missions of the Department of Fish and Wildlife is to preserve wetlands and stream habitat in Washington. I would respectfully urge you to convey this position to the US Army Corps of Engineers before the April 9th deadline. Your support will help ensure that the Army Corps will require the FAA and the Port of Seattle to work with local jurisdictions to find, establish and manage replacement wetlands in the affected drainage basins. Please understand that the destruction of these wetlands without appropriate replacement in their respective drainage basins, could well doom Miller and Des Moines Creeks as viable habitat. This habitat must be preserved.

On a personal note, two days ago I saw that two mature bald eagles had returned to Des Moines Creek. For the last three years bald eagles have nested along Des Moines Creek just a few blocks from city hall. They usually spend the spring and most of the summer there. Des Moines Creek is a viable fish and wildlife habitat and we must not destroy the wetlands that play such an essential role in maintaining this critical resource.

Sincerely yours,

Robert L. Olander
City Manager

RO:sb

Enclosure

cc: Tom Luster, Department of Ecology
William Stelle, Regional Director, National Marine Fisheries
Tom Fitzsimmons, Director, State Department of Ecology
Bern Shanks, Director, State Department of Fish and Wildlife
Congressman Adam Smith
City Council

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

Reply to
ATTN of: ECO-083

FEB - 3 1998

OPTIONAL FORM 89 (7-90)
FAX TRANSMITTAL
To Pauly
Steve Roy
(206) 553-6221
GENERAL SERVICES ADMINISTRATION

Colonel James M. Rigsby
District Engineer
Seattle District, Corps of Engineers
P.O. Box C-3755
Seattle, Washington 98124-2255

ATTN: Jonathan Freedman, Project Manager

RE: Public Notice 96-4-02325, Port of Seattle, December 19, 1997

Dear Colonel Rigsby:

We have completed our review of the above referenced public notice which proposes to fill 7.38 acres of wetlands for the construction of a third parallel runway at Seattle-Tacoma International Airport, including filling 5.46 aces of wetlands for the proposed third runway and 1.92 acres of wetlands fill at on-site borrow sites. Also proposed is filling 2.34 acre of wetlands to construct two new Runway Safety Areas. An additional proposed fill of 1.70 acres of wetlands to construct the South Aviation Support Area (SASA) facilities for airport support and maintenance facilities. Total wetland fill per the public notice is 11.42 acres as described in the table on sheet 6 of 29. Also on sheet 6 of 29 the foot note describes a total of approximately 12.23 acres of wetlands would be filled as a result of this project. Clarification is needed to account for the direct wetland impacts associated with this project.

The proposed work would also require filling and rechanneling approximately 980 feet of Miller Creek (0.25 of an acre), about 2,280 feet (0.15 of an acre) of drainage channels in the Miller Creek basin, and about 2,200 feet (0.5 of an acre) of Des Moines Creek.

As part of EPA's review, we read the proposed "mitigation plan" provided by the applicant and dated December 18, 1996. The direct acreage impacts to waters of the U.S. is different in this document than that included in the Public Notice.

After reviewing the above referenced public notice, the Environmental Protection Agency (EPA) has the following concerns and comments:

- The public notice and "mitigation plan" fails to identify appropriate compensatory mitigation for the wetland impacts. Essentially all of the on site

impacts are proposed to be mitigated off-site in the Green River Valley Watershed near Auburn, Washington. The proposed off-site mitigation cannot mitigate for those specific lost aquatic resources in the Des Moines Creek and Miller Creek Watersheds. EPA recognizes the need for achieving safe aircraft operations by minimizing bird strikes with aircraft, but it is EPA's position that public safety and environmental protection objectives can be mutually achieved. There are a number of wetlands within the Des Moines Creek and Miller Creek watersheds that could benefit from enhancement and restoration. We believe that incorporating mitigation in the impact basins will not create additional wildlife, but simply replace the lost habitat as a direct result of project implementation. We recommend the Corps of Engineers look for on-site (in basin) aquatic resources mitigation opportunities that would provide environmental benefits. The mitigation need not be open water but other wetland habitats that could be developed demonstrating aquatic resources benefits.

- The proposed project includes filling 1.70 acres of wetlands for the SASA. We believe there are opportunities for further avoidance by downsizing or changing the footprint of the SASA. Also the Corps of Engineers should evaluate other off-site existing facilities such as at Paine Field for meeting the overall project purpose for the SASA and avoiding the wetland impacts. EPA recommends the Corps conduct an independent alternatives analysis for the SASA that demonstrates the SASA is the least environmentally damaging practicable alternative per the Clean Water Act Section 404(b)(1) Guidelines.

- The applicant proposes to fill 1.92 acres of wetlands for on-site borrow sites. It is EPA's position that off-site borrow areas are available which would avoid the on-site impacts. EPA recommends the Corps of Engineers conduct an independent alternatives analysis for the on-site borrow areas and demonstrate that the borrow sites are the least environmentally damaging practicable alternative consistent with the 401(b)(1) Guidelines.

Based upon our concerns and comments as stated above, we can not conclude that this project complies with the Clean Water Act Section 404(b)(1) Guidelines. Accordingly, EPA recommends the permit be denied as proposed.

EPA is willing to meet with the applicant and Corps of Engineers to discuss and resolve the issues of identifying on-site mitigation in Des Moines Creek and Miller Creek Watersheds; avoiding the wetland fill at the SASA; and avoiding the wetland fill at the on-site borrow areas.

Should you have any questions or desire additional coordination concerning this project, please contact Steven Roy of my staff at (206) 553-6221.

Sincerely,

Fred Weinmann, Acting Manager
Aquatic Resources Unit

cc: Ecology
WDF&W
NMFS
USFWS
Applicant

the Coop family

12850 - 7th Avenue S.
Burien, WA 98168

Telephone (206)241-1510

RECEIVED
13 APR 1998

April 7, 1998

Jonathan Freedman, Project Manager
US Army Corps of Engineers
Regulatory Branch - Seattle Division
Box 3755
Seattle, WA 98124-2255

Subject: Port of Seattle - Sea-Tac International Airport
USACE Project #96-4-02325

Dear Mr. Freedman:

There are many reasons why a third runway should not be constructed at Sea-Tac International Airport. One reason is the filling in of existing wetlands. Since wetlands are regulated for the public health, safety, and welfare, how will wetland mitigation in Auburn protect the public health, safety and welfare of the citizens of Burien? Since wetlands are regulated to benefit the communities in which they are located, how will wetland mitigation in Auburn benefit the citizens of Burien?

There are many projects related to land use, of which I am personally aware, that are constrained by wetlands. Sometimes, sites are specifically not selected because of the presence of wetlands. For other sites, the property owner must go to considerable effort to avoid or mitigate wetland impacts. Although conceivable, off-site mitigation is not typical due to the extensive regulatory and financial requirements. Also, off-site wetland mitigation has extremely limited potential since the mitigation is required to be in the same watershed.

Please do not approve the wetland filling required for construction of the third runway. Please do not allow the Port of Seattle to pave over the resource the Corps of Engineers is supposed to protect.

Sincerely,

Jeff and Terri Coop

cc: Washington State Department of Ecology - Northwest Region
US Senator Slade Gorton
US Senator Patty Murray
US Representative Jim McDermott
Governor Gary Locke
Washington State Senator Michael Heavey
Washington State Representative Dow Constantine
Washington State Representative Erik Poulsen
King County Council Member Dwight Pelz
Jan Hubbard City Clerk, City of Burien
Regional Council on Airport Affairs

Normandy Park, WA
8 April 1998

U. S. Army Corps of Engineers
Regulatory Branch Attn: Jonathan Freedman, Project Manager
Post Office Box 3755
Seattle, Washington 98124-2255

Subject: Application for Permit Port of Seattle, Reference 96-4-02325

The Subject Permit proposes the destruction of wetlands and turns Miller and Des Moines Creeks into drainage ditches.

As a private individual I look to the Corps of Engineers and Department of Ecology to protect me and our environment from the disaster that is being proposed.

1 The proposed mitigation is not acceptable because the new wetlands will not be in the Miller or Des Moines Creek Watersheds. The permit should address keeping the wetlands within the existing Watersheds.

2 Miller Creek and its Aquatic life will be destroyed from silt coming from the rechanneled section and fill from the proposed 3rd runway . The current building of the north parking lot and silt flowing into Miller Creek shows what will happen when fill dirt is placed adjacent to the creek.

The same thing will happen to Des Moines creek as a result of borrowing and land filling.

3 There is no mitigation proposed for the destruction of both Miller and Des Moines Creeks.

The proposed permit should be denied based on the destruction of wetlands and creeks and inadequate mitigation.

Mayo Alberigi
16431 2nd Ave. SW
Normandy Park, WA 98166

APTH1

Public Hearing April 9, 1998

To: US Army Corps of Engineers
Seattle Branch
Attention: Regulatory Branch

Comments on the Port of Seattle application for a Section 404 permit for airport expansion.

1 The Port of Seattle is proposing the elimination of several acres of irreplaceable wetlands in the process of constructing the third runway and making other improvements at Sea-Tac airport. I use the term elimination deliberately because the mitigation plan proposed by the Port including the creation of a wetland area in another watershed can in no way replace the environment lost in the impacted watershed. Once the proposed fill of Miller and Des Moines Creek watersheds has been accomplished, the damage will have been done and cannot be undone by creation of a wetland elsewhere. The characteristics of the impacted watersheds will have been changed in ways that are unknown at this time and apparently, the Port has no intention of finding out the specific details of the impact.

2 The magnitude of the project and its incomplete description render its impact unknown at best and catastrophic at worst. The effects of the addition of millions of tons of fill on top of many underground watercourses are anyone's guess and if past experience is any guide, the results will prove to be undesirable. The damage to Miller Creek resulting from the relatively simple construction of an employee parking lot north of Highway 518 is an example of the Port's inability to avoid environmental insults in the course of their construction activities. Even if a miracle happens and nothing unforeseen occurs during the proposed project, elimination of natural cover and modification of the existing flowing surface streams will forever reduce the possibility of restoring the Miller and Des Moines Creek watersheds as viable salmon spawning areas.

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4 The primary fill area is not the only impacted area but seems to have been the only one addressed by the Port's planning. The proposed 26 million cubic yards of fill will come from somewhere and in Western Washington, that somewhere is likely part of, or in close proximity to a wetland with problems of its own. Borrow sites in the area of the airport are contiguous with existing wetlands and no planning has been forthcoming to prevent

impacts to these areas. The proposed use of fill from the Maury Island quarry raises other issues. The quarry was for years exposed to fallout from the emissions of the since demolished Asarco smelter. A significant component of the Asarco emissions was arsenic. Use of material from the Maury Island quarry as fill material in a sensitive area thus has the potential for introduction of this contamination into the wetlands to be filled. The consequences of this are unstudied and unknown. Reactivation of the Maury Island quarry will initiate a significant increase in commercial activity at the Maury Island shore which is not dealt with in any environmental study to date.

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Further evidence of the degree of uncertainty imbedded in this project is found the Port's recent application to the Federal Aviation Administration to collect Passenger Facility Charges in the amount of $1.086 billion dollars over the next twenty-four years from passengers departing Sea-Tac airport. On page 43 of the application the Port states:

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> ***"[g]iven the magnitude of this PFC application and the intricacies of Bond issuance, the Port is seeking to reserve the flexibility to reorganize the projects funded or proposed to be funded with bond financing, and/or to reorder the pay-as-you-go projects as currently proposed."***

The Port is asking for the ability to redefine the planning for the use of over a billion dollars of project funds on the fly. Until project planning is firm, the impacts are impossible either to analyze or to mitigate.

No part of this project that has environmental impact should be allowed to proceed without complete and accurate analysis. The Port of Seattle must provide a complete and accurate description of all of its project-related activities and their interrelationships prior to beginning what will be the biggest construction activity ever contemplated in Western Washington. The magnitude of the proposed project is beyond anything that can be sensibly done on a "figure it out as you go" basis. Approval of the project prior to a full disclosure of all the impacts merely gives a blank check to the Port and encourages sloppy management of environmental impacts, taxpayer resources and the future of air transportation in the Northwest.

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The sad part of the whole situation that now exists is that it is probably unnecessary to proceed with the third runway construction at all. The justification for the project has two major themes:

First, the Port claims that Sea-Tac Airport operations are drastically restricted due to visibility reduction in bad weather.

Second, it is claimed that projected traffic growth cannot be accommodated with existing facilities.

At this time, both of these justifications fall short of being convincing reasons for spending billions of dollars and destroying a significant part of the wetland environment near the airport.

1) To address the visibility issue, it should be noted that the FAA, as part of its long range planning, is proposing to switch from existing aircraft navigation systems to nationwide use of the Global Positioning System (GPS) by the year 2010. (See draft FAA National Airspace System Architecture Plan Version 3.0) Whether or not existing systems are removed, the installation of GPS capability in the nation's air transport fleet is ongoing and enables the use of GPS for reduced visibility landings in locations like Sea-Tac. A GPS based concept called Local Area Augmentation System (LAAS) is under development and will soon be approved for operational use down to 200 foot ceilings and one half mile visibility. This capability level is just the beginning of a revolution in aircraft approach and landing control technology. At the very least, the Port and the FAA should provide an analysis of the improved bad weather capacity expected to be achieved at Sea-Tac through the use of GPS and its associated usage concepts. I believe that this analysis will show that the bad weather performance expected from the third runway will have been achieved through the use of GPS and LAAS before the runway could even be completed and put into use. This is not wild speculation. This new approach to air traffic control is a product of the billions of taxpayer dollars that have been spent on the National Airspace Plan over the last decade and previously. The GPS technology that enables this capability is being installed on every new airplane built by Boeing and Airbus and is available for installation in existing aircraft now. Production systems to enable the widespread use of LAAS for visibility at the one half mile/200 foot level are expected to be available and certified before the end of the year 2000. This is clearly before the third runway is expected to be in use and thus is an alternative to the project that must be examined.

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AR 036375

2) The usage growth issue is one that the Port of Seattle itself seems to be unclear on. Data provided with the Supplemental EIS for the airport expansion project stated that the airport capacity, following expansion, would not exceed 474,000 operations per year. In the previously noted submittal to the FAA requesting approval of Passenger Facility Charges, the Port stated that the capacity following completion of the third runway would be 630,000 operations per year. The difference between these two figures is significant. It is also significant that the lower of the two figures has been used to determine the environmental impact while the higher has been used to demonstrate the ability of charges against usage to generate revenue. The message here appears to be that the Port has several sets of information which are used selectively to justify the action under discussion at the time.

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The relative priorities for projects within the Airport Master Plan seem to be changing to relegate the third runway construction to a lower priority. There has been a recent admission in public statements that groundside constraints on passenger, baggage and traffic handling are major impediments to existing levels of airport usage and these issues appear to be moving to the top of the project priority list. If the airport is further expanded to encourage continued concentration of commercial air traffic at the Sea-Tac location, the groundside support situation will only grow worse. The option of relocating appropriate operations to other locations has been politically foreclosed without adequate study. Much of the increased air traffic demand comes from commuting travelers whose trips originate outside King County and who are offered no alternative to Sea-Tac arrival and departure. Thus, a significant amount of Sea-Tac's volume is made up of commuter aircraft that could be relocated to airports outside the metropolitan hub. This would reduce the projected load on Sea-Tac and simultaneously reduce surface vehicle miles traveled. Both of these effects would be beneficial to the environment and are highly desirable. The resulting reduction in projected Sea-Tac passenger volume would eliminate the growth justification for the third runway project regardless of which set of numbers is being used.

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In conclusion:

The project as proposed is poorly planned and contains the seeds of potential environmental consequences as yet undefined. If allowed to proceed, the filling of the wetlands in the Miller Creek and Des Moines Creek drainages will be a step toward the sterilization of the streams and the eventual destruction of the natural habitat they support. The potential for environmental damage extends well beyond the bounds of the immediate project and has not been fully identified.

Finally, there are options to the project that make the third runway and its associated environmental insults unnecessary. Granting the permit requested by the Port will merely continue a process leading to huge environmental, financial and social costs with little real benefit.

Please, act to prevent further destruction of our environment and deny the requested permit

Michael Anderson
11915 Marine View Dr. SW
Seattle, WA 98146

2P-5 April 9, 1998

Jonathan Freedman, Project Manager
Regulatory Branch, U.S. Army Corps of Engineers
P.O. Box 3755
Seattle, WA. 98124-2255

Subject: Comments on Army Public Notice No. 96-4-02325, dated 19 December 1997
Port of Seattle Section 404 Permit Application for the Destruction of Wetlands in Miller and Des Moines Creek Basins

The purpose of this letter is to formally request that the Corps of Engineers reject the permit application of the Port of Seattle for the following reasons:

1. **Alternate analysis to the destruction of the wetlands has not been done.** Federal agencies, including the FAA and the Port are obligated to preserve the natural beneficial value of all wetlands. They are prohibited from the destruction of wetlands by the construction of projects in wetlands unless it is unconditionally proven that no practicable alternative exists. The Port, PSRC (Puget Sound Regional Council), nor the FAA have done an alternative analysis examining the potential location for a new runway or Regional airport outside the four-county region. It fact, I maintain that the PSRC decision that no suitable site exists within the four-county region was a political rather than a economic or environmental decision. No appropriate trade data on costs, schedule, environmental or transportation (traffic) were available for review.

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An independent analysis would show that either a much shorter runway (4000 feet.) for commuter traffic landings or using a GPS location system currently being developed would satisfy the Port requirements and greatly reduce the damage to the wetlands.

2

2. **Measures to minimize the harm to the wetlands have not been taken.** Federal agencies are also required to take all possible measures to preserve wetlands. The permit does not consider any effort to minimize the impact of the project as required. Replacement of the wetlands in the Auburn area does nothing to make the Miller Creek and Des Moines Creek watersheds "whole" again. The 26 million cubic yards of fill to be dumped on these wetlands along with damage of caused by the trucks, the dredging, the removal of existing vegetation and the changes to the groundwater systems as a result of this construction will be permanent and irreversible. The impact of this project on existing aquifers providing drinking water to Highline residences must be known prior to placement of the fill on the wetlands. Wetlands within the watersheds must also be restored. It makes no sense to create wetlands in the Auburn area to mitigate for the

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destruction in the Miller Creek area. Auburn wetlands will not retain the water runoff preventing flooding in the damaged area nor will the Auburn wetlands recharge the drinking water aquifers in the Highline area. We must protect our water resources. There are sites for wetlands in the area and the Port's public statements that wetlands cannot be relocated in the area because of the birds doesn't make sense. *If there can be no wetlands within 10,000 feet of a runway, the runway should be built elsewhere.* Birds have been in the area since Sea-Tac opened more than 50 years ago.

3. **Project cost, schedule and description of work is so poorly planned and undefined such that a permit cannot be fully developed at this time.** The permit application states that "the quantity of wetlands is based on the best information available at this time" and that the amount of fill required is "20.6 million cubic yards" rather than 26 million cubic yards. Sources of the fill dirt is yet to be defined and at a cost which is from 23% to 48% higher than estimated in the Ports estimates (per Port Commission Meeting 10 March 1998). Total costs of the runway project are increasing at exponential rates. The 8500-foot runway cost has increased from $217 million in Jan. 1992, $455.5 million in1994 to $584.8 million in Feb. 1998 and still getting bigger. At the Port Commission meeting on January 23, 1998, the Port confessed that they do not have staff to manage all the airport expansion projects or how to plan the efforts. It was stated that some projects would slow down and be rescheduled. Schedule slides will further increase costs.. In the Ports "Passenger Facility Charge Request" proposal currently under review and submitted to the FAA, the completion schedule given is inconsistent within the document. It states that the runway is an 8-year construction project and will be completed in 2004??? I do not believe that the Port has received funding for the project or been able to procure the property per their schedule. It is possible that the cost increases will eventually result in the cancellation of the third runway project An additional issue that could seriously impact or cancel the project is that of the litigation on going between the Airport Communities Coalition and the Port, FAA and PSRC.

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The Port does not know what they are doing, what it will cost, where the funds are coming from and when the work will be done. This project permit should not be allowed to proceed until all of the design data, cost, funding, schedule, and litigation is sufficiently defined to insure that it will be completed as planned. *It would be catastrophic for the destruction of the wetlands and their environment to occur then have the project canceled when smarter people determine the total regional (State of Washington) airport needs will be in the next 50 to100 years and the economic plan to solve them.*

4. Water Quality Standards are <u>not</u> being addressed by this permit.

9 Washington has established water quality standards for state surface waters. Chapter 173-201 WAC(1990). These standards include an anti-degradation policy which requires that discharges into receiving water not further degrade the existing water quality. Construction and operational impacts to the surface water runoff are guaranteed to occur if this permit allows the dumping of 26 million cubic yards of fill on what is now wetlands, trees and grasses which filter and clean to surface water. Damage to Miller Creek has already happened during the construction of the airport employee north parking lot. The Port did not restrain the fill properly and it transformed Miller Creek into a muddy mess. This parking lot project is a very simple task compared to 26 million cubic yards of fill. Does the Port have the engineering knowledge to pile so much dirt in one place? What about seismic faults reported in the area?

10 Stormwater runoff will be a major problem. The Port admits that "minor increases of heavy metals, oil and grease are likely to reach Miller and Des Moines Creeks." It will also increase the amounts glycol and fecal coliform in the stromwater runoff. High levels of the above have been measured in these creeks in 1997 and reported to DOE. Further loss of wetlands will add to the degradation of stormwater runoff and water quality resulting from Sea-Tac airport operations.

Summary. My arguments for you, the U.S. Army Corps of Engineers, to deny this construction permit identify only a small part of the total risk to the environment the Port is asking you to authorize. The unknowns are so many that the risk could be much greater than WPPSS ever was. Please do not believe that just because the Port is a large, powerful, municipal corporation with lots of political clout, it will do no wrong. This is not the historical case! The Port projects are often poorly planned and poorly managed leading to poor performance and costly overruns. **This project is not ready for a permit to proceed! Please make them do the studies before they destroy the wetlands. Do not approve this permit.** Thank you.

Sincerely,

Jim Bartlemay

Jim Bartlemay
23510 10th. Ave. So.
P.O. Box 98732
Des Moines, WA. 98198
phone: (206) 824-6589

April 9, 1998

US Army Corps of Engineers
Seattle District
Regulatory Branch
PO Box 3755
Seattle, WA 98124-2255

Attn: Jonathan Freedman, Project Manager

RE: 96-4-02325 Port of Seattle

The attached letter is being submitted to you for your review. It was also sent to John J. Duncan, Chairman, Subcommittee on Aviation. The issues and comments in the letter on the Airport Expansion as presented on March 16, 1996 are still pertinent today. Thank-you for taking time to explore legitimate options and concerns involved with this proposed project. I formally request that you reject the Section 404 (b)(1) permit submitted by the Port of Seattle.

Sincerely,

R. C. Bolles, Jessie B. Bolles

Jessie B. Bolles
R.C. Bolles

March 16, 1996

Honorable John J. Duncan, Chairman,
Subcommittee on Aviation,
House Committee on Transportation & Infrastructure
c/o RCAA
19900 4th Ave. SW
Normandy Park, WA 98166-40043

Dear Sir:

To those of us that must carefully conserve our finances, it seems incredible that our Federal Government would financially support a scheme as economically ridiculous as a secondary airport runway which is much more expensive than any other full length runway. But since there are some who would ask for such an expenditure, we must also plead: PLEASE DO NOT CONSIDER SUCH A FOOLISH SUPPORTING ACTION.

There are many other reasons why the third runway should not be constructed:

1 The third runway would be an ecological disaster for the people in the area surrounding it. The Port of Seattle says the loss of wetlands will be "mitigated" by buying other wetlands miles away across the Green River from the airport. It is similar to taking our horse and giving it to people across the river. Similarly,

2 they are proposing to dump waste water from 98 acres of runway into the Miller Creek fisheries area that is already choked by existing airport pollution and excess waste water.

3 The Port has made a great noise and show of airport noise control. It is obvious to those of us that have to live with the noise that it can not be controlled by adding another runway and flying more airplanes over our schools, churches, businesses and homes.

4 The airport may be compared with a slow growing cancer that has been swallowing up the area and the quality of life of the area for the last fifty years. Now no one wants to live near an airport. Many large cities have had to move their primary airport away from the area within the city just as the Seattle airport needs to be moved. For examples, note the cities of New York, Chicago and Denver. That is where any expansion money should be spent.

5 The Port of Seattle has usurped the right of citizens to vote on airport financing, taxing and bonding and thus prevents them from exercising any control.

AR 036382

Please, help the people of this area by refusing to participate in the funding of this excessively expensive project.

Yours Truly,

Jessie B. Bolles, R. C. Bolles
17622 12th Ave. SW
Normandy Park, WA 98166
Phone No. 206-244-3605

AR 036383

"Destruction, Degradation and Dirt" appears to be the cause the Port of Seattle would follow should the Section 404 permit application be approved. Many reasons for denial by the Army Corps of Engineers include:

1 (1) Vice-President Gore announced the Clean Water Initiative in October which negates the "no net loss" of wetlands. The new goal is an increase of 100,000 acres of wetlands by 200

2 (2) The Port admitted in the EIS that filling wetlands will mean more sediment, de-icing chemicals and heavy metals will reach Miller and Des Moines Creeks with devastating effects on aquatic life and water quality.

3 (3) Since attempts to move wetland are doomed to failure, "enhancement of wetlands within the Des Moines and Miller Creek watersheds could be a viable option. Why doesn't the Port give this some serious thought?

Loretta M. Bowers
1820 S.W. Shoreview Lane
Seattle WA 98146

April 9/98

Discussion - U.S. Army Corps of Engrs Section 404 wetlands permit hearing ; April 9, 1998.

I request that the U.S. Army Corps of Engineers, along with the Washington Dept. of Ecology, deny the Port of Seattle the necessary permits required to fill in and relocate the wetlands involved with the Port's proposed third runway project.

My reasons for this requested permit denial are as follows:

1 • The Ports past actions have already caused environmental damage to Des Moines and Miller creeks. This damage needs to be repaired, not made worse.

2 • The Port says that it can create new wetlands to replace those it would destroy. I understand that replacing wetlands is very risky and is not an easy thing to do. In addition, the replacement wetlands would be in the wrong place.

3 • The Port has not identified all of the wetlands that would be affected by runway expansion, nor the scope of runway construction impacts on local watersheds and aquifers. Therefore the Corps of Engineers, the Washington D O E and the public cannot properly evaluate the Port's proposal.

George W. Bowers
1820 SW Shoreview Lane
Burien, Wa. 98146

April 9, 1998

To: US Army Corps of Engineers

From: James E. Carpenter James E. Carpenter
Carolyn V. Carpenter Carolyn V. Carpenter
Burien, Washington

Subject: Proposal to Move Wetlands from SeaTac Area

/ We are appalled at the proposal to move wetlands from the Seatac area to another location (in Auburn). Recent growth in King County has had a severe negative impact on fish and wildlife in our watersheds. Destroying additional wetlands is a bad idea. Please say "No" to the Port of Seattle request to destroy wetlands at the site of the proposed third runway.

This irresponsible action would accelerate the decline of the salmon population, some of which is close to being on the list of endangered species. We should not be participants in such a process.

The Port of Seattle's Section 404 Permit Public Hearings

No.96-4-02325 April 9, 1998

1 The F.A.A. did not say "Don't put any lakes or open water within 10,000 feet of a runway, they said, "Don't build a runway within 10,000 feet of any lakes or open water." Not many airport authorities apparently listen to the F.A.A. or there wouldn't be so many airports right on the oceans and lakes around the United States. For example, Renton Airport is right on the southern end of Lake Washington. I don't hear them complaining about birds. If the Port wants to remove all the water within 10,000 feet of the runway they better be prepared to fill in all the ponds on the golf course south of the airport, Arrow Lake in Normandy Park, Lora Lake, Lake Reba, Tub Lake, Arbor Lake, Bow Lake, Small sections of the Green River, Lake Burien, Angle Lake, and portions of Puget Sound. Are they ready to do that?

2 I have seen quotes from the port claiming that they will destroy anywhere from 7.6 acres, to 15, to we don't know how many because we don't have access to the property. How can a permit be issued to destroy an unspecified number of acres of wetlands? It can not be issued. Once a wetland is destroyed it is gone forever. Man made wetlands fail to often to be considered as replacement, and when the replacement is 10 miles away and totally outside the present drainage area, it is unacceptable.

3 Just a short aside, there are another set of wetlands in danger here also. The proposed borrow sights in Des Moines where the port wants to "borrow dirt from for this project, happen to lie just to the east of a fairly extensive set of wetlands. If the Port takes as much dirt out of those borrow sights as they seem to want to, there will be some rather large holes in the earth down there and guess what? Water will run down hill causing those wetlands to dry out and be destroyed and soon those huge holes will be huge mud puddles within 10,000 feet of the airport that will need to be filled in so birds won't congregate there. Where will that dirt come from and how much will it cost us.

Who ever is planning all this stuff needs to stop the nonsense and find something else to do.

4 We get our drinking water from aquifers that are under this proposed runway. Seattle uses these aquifers in the summer to supplement their water supply. So far we are lucky enough that Sea-Tac Airport has not polluted all the aquifers, but if they remove the recharge system and pile 26 million cubic yards of dirt on them, (that is about 86 million tons of dirt) what is going to happen to those aquifers? We will all end up buying bottled water which is 600 times more expensive.

5 If the Port of Seattle is allowed to destroy these wetlands there will be nothing to filter the pollutants out of the creeks and instead of killing all the fish once every couple of years, the airport will kill the creeks for good. Say goodbye to the salmon, the herons and everything else that lives on or in those creeks.

I We saw letters from the E.P.A. and the Department of the Interior stating the fact that The Clean Water Act will be violated and unlawful pollution will occur if these wetlands are destroyed and we also saw their recommendations that this permit should not be issued. I believe that the Corps of Engineers would be more than justified in denying this permit.

I stand before you today and ask you to please, do the right thing and say "NO" to the Port of Seattle. Tell them to leave our wetlands alone by denying this 404 permit.

Thank you for your time.

Philip C. Emerson
18403 2nd Ave. So.
Seattle Wa. 98148

Talking Points for Charlie Frame
U.S. Army Corps of Engineers
Public Hearing on 404 Permit
April 9, 1998
7 p.m.

2P-11

Hi, my name is Charlie Frame.
5795 S 130th Tukwila Wa

I'm here tonight to encourage you to approve this 404 permit ~~for several reasons.~~ First, it's an environmentally sound solution; Second, to leave wetlands near the airport creates a safety hazard, ~~and Third, because regional decision-makers approved this project nearly two years ago, and it's time to move forward.~~

The Port of Seattle has worked for several years on a mitigation plan and has spent more than $2 million on land studies for creating the wetlands in Auburn.

And that's not to say there is no mitigation occurring in the Miller or Des Moines Creek Basins. In fact, the Port has committed to substantial work there. The hydraulic and water quality functions of the affected wetlands will be replaced. The flood control functions are being replaced within the basin with the creation of more than 5 acres of new pools and floodplains. Habitat is being improved within the basin with a new 50-foot buffer of native plants and grasses on both sides of Miller Creek
d fisheries habitat is being improved along portions of the creek.

~~And, it's also important to note this project has no effect on salmon, which simply don't reach that far up Miller Creek.~~

Wetlands do deserve protection because they fulfill important functions within the local ecology. While every wetland has value, the ones being filled ~~are of relatively low quality because they~~ are small and isolated from each other. Those 22 acres don't even exist adjacent to one another, and many of the tracts are smaller than one-fourth of an acre.

The Port is proposing replacing them with 47 acres of wetlands and forested buffer. Of course, it would be ideal if the new wetlands could exist near the airport, but it simply can't.

And the safety concerns posed by creating wetlands near the airport are real and documented. I urge you to please not overlook the serious danger caused by birdstrikes at airports all over this country. Why would we choose to resolve an important environmental issue by creating a potentially deadly safety issue?

I t seems to me the Port has created an appropriate balance between the needs of the
ironment and the safety issues associated with wetlands near airports.

- Finally, I'd like to remind you that in 1996, 86 percent of the Puget Sound Regional Council approved the Master Plan at Sea-Tac Airport, ~~and the construction of the third runway.~~ They did not make that regional decision in haste, they made it following nearly 10 years of deliberation in which numerous alternatives were studded at length. I think it's time we ~~follow the direction set by our regional leaders and~~ allow this project to move forward.

- Thank you.

4-9-98

U.S. ARMY CORPS OF ENGINEERS
WASHINGTON STATE DEPT. OF ECOLOGY

ISSUE: WATER QUALITY IMPACT

ARGUEMENT:

IN CHAPTER IV, PAGE IV 10-13, IT STATES;
"DURING PHASE I THROUGH 3 CONSTRUCTION, APPROXIMATLY 20% OF THE ESTIMATED SEDIMENT YIELD WOULD BE DELIVERED TO MILLER CREEK DURING A STORM EVENT. DURING AND UP TO 1 YEAR AFTER CONSTRUCTION, IT IS ESTIMATED THERE WOULD BE AN INCREASE IN TSS LOADING OF BETWEEN ABOUT 28 TO 71 TONS PER YEAR TO MILLER CREEK. AN INCREASE OF ABOUT 11 TO 27% TO MILLER CREEK

TOTAL SUSPENDED SEDIMENT

PAGE IV 10-14 STATES;
ABOUT 193 ACRES OF NEW IMPERVIOUS SURFACE WOULD BE CREATED IN PHASE I. ALTHOUGH PROPOSED STORMWATER MANAGEMENT FACILITIES WOULD REMOVE SOME POLLUTANTS, ~~MILLER~~ MILLER & DES MOINES CREEKS WOULD RECEIVE

AR 036391

INCREASED LOADINGS OF ORGANICS, METALS, FECAL COLIFORM BACTERIA AND NUTRIENTS DURING STORMS. THESE INCREASES WOULD ADVERSELY AFFECT THE BENEFICIAL USES OF THESE STREAMS AND COULD RESULT IN ACUTE AND CHRONIC EFFECT ON AQUATIC BIOTA (ie; IMPAIRMENT OF THE PROPAGATION OF AQUATIC BIOTA.)"

WE SHOULDN'T BE INCREASING ANY POLLUTION TO OUR STREAMS!

CARL HANSEN
17424 13 SW
NORMANDY PARK
WA 98166

4748

U S ARMY CORPS OF ENGINEERS
WASHINGTON STATE DEPT. OF ECOLOGY

ISSUE: REMOVAL OF WETLANDS FROM MILLER CREEK

ARGUEMENT AGAINST;

- DR. JAMES KARR, PROFESSOR OF FISHERIES AND ZOOLOGY OF THE UNIVERSITY OF WASHINGTON PRESENTED A SLIDE SHOW AT THE FEBRUARY 12, 1998 SOUTH KING COUNTY CHAPTER OF THE SIERRA CLUB. HE IDENTIFIED WETLANDS AS A KEY INTEGRAL COMPONENT OF A STREAM SYSTEM. THE RELATIONSHIP IS NOT SEVERABLE TO FUNCTION PROPERLY. 2

- ALTERNATIVES FOR PROVIDING ADDITIONAL COMMERCIAL AIR SERVICE EXIST. 3
  - (SEE ATTACHED HIGHLINE TIMES READER COMMENT)
  - OFFLOAD CARGO OPERATION
  - OFFLOAD COMMUTER SERVICE

- AIRPORTS THROUGHOUT THE NATION 4

4 AND THE WORLD ARE LOCATED ADJACENT TO "WILDLIFE ATTRACTION" AREAS. IF THE RISK IS ASSESSED TO BE TOO GREAT THEN, NO THIRD RUNWAY. IF THE SEATTLE AREA POWER TRUST FORCES THROUGH A THIRD RUNWAY, THE COST OF ADDITIONAL LAND AND PROPERTIES WITH RECREATION OF WETLANDS TIED TO MILLER CREEK IS A NECESSARY COST.

5 CONVERTING THE "FARMLAND" THAT HAS BEEN IDETIFIED AS POLLUTING THE STREAM TO WETLAND WOULD WORK TWO PROPLEMS.

GENERAL COMMENTS

FROM ALL INDICATIONS TO DATE THE PORT OF SEATTLE AND FAA HAVE DEMONSTRATED A "MONOPOLY OF POWER & INFLUENCE" OVER OUR ENVIRONMENTAL PROTECTION AGENCIES. THE WHOLE THRUST OF A THIRD RUNWAY AT SEA-TAC AIRPORT IS BASED ON A DESIRE OF A FEW NOT ON SOUND LOGIC OR ECONOMICS.

6 NEIGHBORHOOD PIDLETS (AIRLINES) ALL AGREE THAT WEATHER DELAYS ARE VERY MINIMAL AT SEA-TAC.

ANY DELAY IS ONLY A SLIGHT INCONVENIENCE AND RECOVERABLE. CAUSING DAMAGE TO AN ALREADY FLAWED STREAM HABITAT IS CRIMINAL. AND LASTING. 6

IT IS INCUMBENT ON ALL OF US TO WORK TOWARD REPLACING THE NECESSARY ELEMENTS OF A NATURAL HABITAT FOR THE ENTIRE MILLER CREEK STREAM SYSTEM AS WELL AS FOR OTHER WATERWAYS. THIS EFFORT HAS TO START AT THE HEADWATERS CORRECTING THE MANY WRONGS CAUSED BY HUMAN INTERVENTIONS; RESIDENTUAL, ROAD & COMMERCIAL. 7

IT IS SAID "WE" MUST HAVE ECONOMIC GROWTH. THE "WE" ARE A SMALL FEW. OUR "GREAT PACIFIC NORTHWEST" IS LABELED SO BECAUSE OF OUR NATURAL RESOURCES. IT IS SO CONFOUNDING AND FRUSTRATING WHY WE ARE SO CONSTANTLY PUSHED INTO DESTROYING IT TO SATISFY GREED.

CARL HANSEN
17424 13 SW
NORMANDY PARK,
WA. 98166

LETTERS TO THE EDITOR

Another airport, not another runway

Editor:

Booth Gardner's opinion editorial in the February 16th Seattle Times caused much discussion in our communities. He places the blame on the cities of Burien, Normandy Park, Tukwila, Des Moines and Federal Way and the Highline School District for suing to block the third runway at Sea-Tac International Airport and thus slamming the door to world trade. The blame trying to appease Snohomish County politicians, which resulted in dropping from consideration the use of Paine Field, and the insistence that the new airport site should be "close in."

Mr. Gardner has been away for four years and needs to be reminded of the history which led up to the dilemma we're presently in. Back in 1993, the Puget Sound Regional Council adopted a resolution declaring "The region shall pursue vigorously as a preferred alternative a major supplemental airport." The new airport was estimated to cost over $1 billion plus connecting infrastructure. The PSRC had until April 1, 1996 to site a new airport. If the new airporty would eliminate the need for expansion at Sea-Tac, the third runway would not be built. TAMS Consultants of New York was chosen by the PSRC to select 12 supplemental airport sites. All 12 "close-in" sites recommended for further study by TAMS Consultants included locations in or near some of the region's most heavily populated areas. Naturally the people protested; the chosen locations came with a guarantee for protest. The third runway is to be built among the most densely populated areas of King County and we already have two runways putting a heavy burden on our communities.

A three-pronged approach 1) using Sea-Tac without a third runway, 2) using Paine Field in Everett, which has existing facilities and infrastructure already in place and 3) siting a new airport away from heavily populated areas, could have worked. The decision was made to remove Paine Field in order to appease Snohomish County leaders, who objected to having any sites in their county used as a supplemental site. This was an example of parochialism at its best. It was clear the invisible hand of politics was playing a significant role. Here was an existing airport 30 minutes north of Seattle but, for some mysterious reason it could not be used as a satellite airport. A 14-member panel said Paine Field should be considered, but the location was declared "off limits for political and technical reasons."

In August of '1994, the list of sites for a new airport was narrowed to six, and soon after, they were all dropped because of opposition in each of the communities. Community opposition never counted for the cities of Burien, Des Moines, Tukwila, Federal Way and Normandy Park. One major Seattle newspaper editorial stated that "siting a new airport in the Puget Sound region was perhaps impossible." And so the search abruptly ended.

The politicians were so bound by politics and regionalism, they were unable to stand back and look at the entire picture and make a creative

– *See* LETTERS, *page 7*

Highline Times
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CONTINUED FROM PAGE 6

decision. They have been trying to study the air traffic growth in our region for 30 years. In 1969, an official study was done and here we are 30 years later fighting over the same problem because we have "leaders" who can't or won't face the problems they were elected to solve.

There are areas of our state that would welcome a new airport–one of which is north Thurston County. It would be close to Olympia which is one of only 10 state capitals in our nation not served by an internation airport. The location is accessible to I-5 and Amtrak, and away from a heavily populated area. Japan, Germany and France know how to build bullet trains, why can't we? Imagine how this would open the door to economic development to a new area of our state and at the same time solve the future air-traffic growth in our region.

Because our leaders failed course in 1994, plans are being made today to haul 27 million cubic yards of fill dirt to Sea-Tac Airport to build a plateau for constructing an 8,500-foot runway and support facilities at a cost of $1.7 billion. Is it logical to spend $1.7 billion on an airport where capacity will soon be exceeded? Our leaders' failure will leave us in the same quandary as before the third runway is completed–still in need of a new airport with fewer sites available at an astronomical price tag. The politicians will still be crying world trade and commerce.

Mr. Gardner says the airport cities' fight won't be won. Let's allow the courts to decide, or is that another political decision that has been made before the process has been completed?

Audrey and Russel Richter
Normandy Park

AR 036396

16611 3rd Ave SW
Seattle, Wa 98166
April 9, 1998

Dear Sirs:

I am concerned about the filling of our wetlands at the airport with millions of yards of dirt. Wetlands and wild life are important parts of our community and are lost & gone forever should this filling of dirt occur. What will happen to Miller and Walker Creeks? Will they be awash with sediment ruining our wild life in the Creeks. 1

Putting Miller Creek in a tube is a poor alternative to a naturally functioning stream bed. During construction, how will water quality be affected 2

I have lived on (above) Miller Creek since 1972 and I can only believe that so much dirt can only ruin any natural qualities of land and water that we have.

Sincerely,

Janet K. Johnson

Date: April 9, 1998

From: Helen D. Kludt
17529 13th SW
Seattle, WA 98166

To: US Army Corps of Engineers
Seattle District
Regulatory Branch
Post Office Box 3755
Seattle, WA 98124-2255

Attn: Jonathan Freedman, Project Manager

Re: Work in Miller Creek and Des Moines Creek Watersheds and Wetlands

Reference: # 96-4-02325

Applicant: Port of Seattle

Dear Mr. Freedman

I am writing this letter to ask that the Army Corps of Engineers reject the Section 404(b)(1) permit submitted by the Port of Seattle.

1. Miller Creek/Wetlands

A filled area of 26.4 million cubic yards of dirt will change the terrain and effect the drainage pattern of Miller and Des Moines Creeks, and other small tributary streams on the west side of the airport. The headwaters of Walker Creek, a tributary to Miller Creek, start in a big cattail marsh at 176th South from Des Moines Memorial Drive to approximately 12th South. This wetland will disappear. How can this avoid affecting the health of this stream? The weight of all this dirt will certainly change the functions of ground water storage, water filtration, and regulation of stream flow. I attended several lectures at the University of Washington regarding hydrology. They discussed the importance of marsh areas and showed a picture of a dried-up lake which was the consequence of the filling-in of a marsh a few miles away.

The Corps of Engineers also informed me about the importance of saving wetlands when I was a member of the Normandy Park Planning Commission. We were working on an update of our City's Shoreline Management Plan. I called the Corps of Engineers to get some information to clarify an issue under discussion. When I identified myself as a Normandy Park Planning Commissioner, he said forcefully, "You're from Normandy Park! What are you people doing there!" He continued, "I was driving down First Avenue and saw a truck dumping dirt in a marsh area by the stream at about 172nd Street. You can't do that!"

A number of people (including myself) had called in complaints and the City had it stopped. The gentleman at the Corps was glad to hear it had been stopped and explained to me, "The law prohibits the filling of wetlands for good reasons." He said it replenishes ground water, feeds springs, and regulates stream flow. It also helps with filtering the water and helps control flooding problems. I assured him that I do understand the consequences and the importance of doing things properly.

The Port of Seattle should properly obey the rules also.

2. Mitigation

I question the Port of Seattle for the filling of wetlands in the Miller/Walker Creek and Des Moines Creek watersheds and then spending millions of dollars on wetland mitigation in Auburn which will involve the Green River Watershed.

The Port of Seattle obviously didn't even consider any mitigation to the local drainage basin. The damage by airport expansion is being done to Miller/Walker and Des Moines Creek watersheds. The Miller Creek drainage basin is 9 square miles. If the Port of Seattle would just look around these local watersheds they could find places where they could improve some wetlands and retention areas.

I have some thoughts on areas the Port of Seattle could use that would help in their local watersheds.

2

1. Walker Creek - The area just south of 171st SW on First Avenue South.

2. Miller Creek - The Hermes Depression in Burien on 4th SW has flooding problems. This could be made into a neighborhood park and also serve as a wetland storage basin.

3. Miller Creek - There is an area on Miller Creek between Ambaum and First Avenue South that has possibilities for enhanced wetlands and retention.

I'm sure there are some other obvious places that could help with better retention and enhancement.

The Port of Seattle now claims that the wetlands lost by runway fill cannot be replaced in the Miller/Walker and Des Moines Creek watersheds. The Port is claiming that there should be no "wetlands within 10,000 feet of the airport because of potential bird strikes!"

3

There are several lakes and stream wetlands that have been here far longer than the 50 years that the airport has been here. Are all of those areas going to be filled in? I understand that there are bird watchers that patrol the west side of the airport to make sure that the big birds - duck, geese, herons - do not nest in those areas. That seems a much less expensive way to handle the problem.

I also understand that airplane frames and engines are designed to withstand a strike from a four pound bird. I would like an answer as to how many bird strikes of over four pounds have occurred at Sea-Tac in the past 20 years that have caused problems.

There are many, many airports that are built near bodies of water - Portland Airport on the Columbia, Vancouver, B.C. Airport on the Straits of Georgia, San Francisco on the Bay, etc. I am sorry to say that I think it's just another manipulated excuse for justification of this horrendous expense and environmental disaster.

3. The Law Suit

4

In 1970 Miller Creek owners were asked by King County Public Works to sign a temporary easement to give the County permission to enter their property so that "improvements" could be made to the creek. No one would sign until they saw the planned "improvements". After the plan was revealed, the property owners definitely would not sign the papers.

According to the plans, the creek was to become a Los Angeles-type drainage ditch. We found that it was to accommodate stormwater runoff from the 2nd Runway at Sea-Tac Airport and Highways 518 and 509 (highways that served the expanding airport facilities). King County also planned to increase their drainage

AR 036399

into the stream. Miller Creek which is about 10 feet wide through my property would have become 62 feet wide, 3 feet deep with a 2 foot dike on top.

The whole community was appalled. A lawsuit was filed on July 24, 1970. A restraining order was issued on August 4, 1970 that stopped all construction on projects related to the channeling of Miller Creek. Settlement agreements were made in conjunction with the litigation placing restrictions on future activities affecting Miller Creek.

I am enclosing a Declaration which gives the important points of the settlement reached with the Port of Seattle in October, 1972 and with King County and Washington State Highway Commission in October 1974.

4

The settlements are permanent and any outfalls that will increase the flow above the capacity of Miller Creek will be illegal. Walker Creek is a tributary to Miller Creek and the same rule should therefore apply.

Miller Creek flooded in the Fall of 1991 and Spring 1992. Mrs. Nye who had lived in her home on 9th Ave. South and 160th Street for 45 years got 5 feet of water in her daylight basement. She talked with King County Surface Water Management and explained that the water backed up because the culvert under the road wasn't big enough for that amount of runoff. The response was, "We can't enlarge any culverts in the Miller Creek Basin because the settlement of the Kludt's Law Suit won't allow us to do that." She called me and asked if this was correct. I said, "Yes." It doesn't help to keep releasing the problem down stream. **The settlement we have with the County-State Highway-Port of Seattle is permanent with no sunset.** Surface Water Management installed a dike just east of Laura Lake to control the excessive stormwater overflow from Lake Reba and back the water into Port of Seattle owned low land acreage.

4. Overview

The Port of Seattle along with the Downtown Chamber of Commerce has not seriously or truthfully pursued alternatives to expanding Sea-Tac Airport. They have indulged in manipulation of numbers and exaggerated statements to promote their very biased pursuit of expansion.

1. The Port says we badly need the third runway because 44% of the time we have bad weather landing conditions which cause delays. In fact it was found to be more like 17% of the time.

2. The Port says that the area is growing so fast we have to expand the airport to avoid continuing delays. Pilots say Sea-Tac is one of the best airports they fly into for on-time operations.

5

3. The Port of Seattle says that the population of the State of Washington is too small for a second major airport. In fact a recent check of growth in the Puget Sound Region showed a growth of 440,000. The fastest growing County was Thurston County, followed by (not in order) Snohomish, Kitsap, Pierce (south part of county) and Island County. King County remained status quo. Washington State is one of few states that does not have a major airport near its capitol city. Perhaps some thought should be given to enlarging that airport.

4. Areas east of the mountains are growing. People from there tell me they are hoping for better airline service so they don't have to go through Seattle all the time.

5. Last year the number of flights were down at Sea-Tac Airport by about 13,000. There were about 375,000 total flight operations. The passenger count was up to almost 26,000,000 - averaging a little less than 70 passengers per flight.

AR 036400

6. Commuter flights are about 40% of flight operations. They carry less than 10% of the passengers. Better planning for commuter aircraft could eliminate the need for this costly expansion.

5. **Conclusion**

Urban Airports must have a limit of the number of flights they can handle. Continual encroachment into urbanized areas causes problems that will never end. The bigger the airport grows the bigger the area of environmental damage.

Lastly, quoting from the book, *History of the Port of Seattle* by Padraic Burke is perhaps appropriate:

> "The dilemma the Port faced over growth and the resulting pollution was satirically drawn by two writers in an article for the *Northwest Magazine* section of the Sunday edition of the *Post-Intelligencer*. The writers looked ahead, supposedly, to the not-to-distant future when the Port of Seattle became the world's largest port, but because of all the pollution that resulted, no one lived in the City anymore."

Sincerely,

Helen D. Kludt

Helen D. Kludt

Enclosures:

Declaration dated December 30, 1995
Filed in King County Superior Court June 24, 1996
Case No. 726259

Letters
R.C. & Jessie Bolles to John Duncan - Subcommittee Chairman on Aviation, 3-16-96
Helen Kludt to Expert Arbitration Panel, 2-15-96
Helen Kludt to Washington State DOE, 7-10-96
Helen Kludt to Washington State DOE, 11-30-97

Press Release - Air Traffic: An Environmental Problem for America to Kyoto

Photographs as Noted

AR 036401

FILED
KING COUNTY WASHINGTON
JUN 24 1996
SUPERIOR COURT CLERK

IN THE SUPERIOR COURT OF THE STATE OF WASHINGTON FOR KING COUNTY

WILLIS W. KLUDT et ux. et al Plaintiffs, vs. COUNTY OF KING, the PORT OF SEATTLE, and the WASHINGTON STATE HIGHWAY COMMISSION Defendants,	No. 726259 DECLARATION OF HELEN D. KLUDT

Helen D. Kludt testifies as follows:

1. I reside at 17529 13th Avenue Southwest in Normandy Park, Washington. I am of legal age an sound mind. I am one of the parties plaintiff in an action titled Kludt et ex., et al. vs. County of King, the Port of Seattle and the Washington State Highway Commission, Cause No. 726259. I am the designated representative of all the plaintiffs.

2. In partial settlement of the above described lawsuit I executed an instrument on behalf of said plaintiffs titled Stipulation and Order of Dismissal as to Defendant Port of Seattle with the Port of Seattle on October 12, 1972. This stipulated settlement agreement was filed in King County Superior Court under Case No. 726259. A copy of this agreement is attached hereto, as Exhibit 1.

AR 036402

3. Attached to the aforesaid Stipulation and Order of Dismissal as to Defendant Port of Seattle (Exhibit 1 hereto) as Exhibit A, is a letter dated October 6, 1972 from Port of Seattle Chief Engineer Vern Ljungren. This letter describes the North Clear Zone Detention Pond which was constructed under the terms of the stipulated settlement agreement with the Port of Seattle:

> The Port of Seattle Engineering Department will recommend to the Port Commission that the North Clear Zone Detention Pond be constructed during the summer of 1973. This recommendation will be made as soon as a preliminary cost estimate covering this work is completed. We anticipate that this will be no later than the November 14, 1972 meeting of the Port Commission. This detention pond will have minimum storage capacity of 13.5 acre feet of water (with 1.75 feet of freeboard). This storage capacity will be over and above the normal holding capacity of the pond. The detention pond will have a maximum discharge of 40 cubic feet per second. . . . [1]

3. The Stipulation and Order of Dismissal as to Defendant Port of Seattle (Exhibit 1) dated October 12, 1972 records the terms of the settlement agreement whereby:

> Plaintiffs and the Port of Seattle, through their undersigned attorneys, hereby stipulate and agree as follows:
>
> 1. The Port of Seattle shall deliver to attorney for plaintiffs a letter in the form attached herein as Exhibit A.
>
> 2. Plaintiff's Amended Complaint shall be dismissed as to defendant Port of Seattle without prejudice.

[1] Stipulation and Order of Dismissal as to Defendant Port of Seattle, Kludt et ux., et al. v. King County and State of Washington Highway Commission, No. 762259 King County Superior Court Oct. 12, 1972, Exhibit A.

3. In the event that the Port of Seattle decides not to construct the drainage retention facility described in Exhibit A, or in the event that such facility, as constructed, does not have the storage capacity and maximum discharge characteristics outlined in Exhibit A, plaintiffs may commence an action against the Port of Seattle and the Port of Seattle stipulates that said action may be placed upon the trial calendar at the earliest available date, but not earlier than 60 days from the date of commencement of such action. No provision of this stipulation of Exhibit A shall be interpreted to create any cause of action or claim not now existing or available to the plaintiffs.

4. Plaintiffs hereby release the Port of Seattle from all claims for damages or injunctive relief now existing or arising before October 1, 1974 arising from any alteration of the water purity, water volume, water flow velocity or other flow characteristics of Miller Creek resulting from the construction or maintenance of the drainage retention facility as described in Exhibit A, or from the construction of additional facilities at Seattle-Tacoma International Airport which drain into Miller Creek through said facility PROVIDED HOWEVER that the effectiveness of this release is expressly conditioned upon completion by the Port of Seattle of the drainage retention facility as described in Exhibit A, and provided further that the effectiveness of this release is expressly conditioned upon maintenance in their present condition by the Port of Seattle, of the existing dike and to each culvert at 16th Avenue in the North Clear Zone of the Seattle Tacoma International Airport between the date of this Stipulation and the initiation of the drainage facility described in Exhibit A attached hereto.

DATED this 11th day of October, 1972. . . . [2]

[2] Supra, p.1-2.

4. On February 16, 1973 Defendant King County presented a motion in King County Superior Court to set aside the trial date of February 26, 1973 for this case. The motion requested a delay of the trial date to allow completion of the study known as the "Sea-Tac Airport and Vicinity Master Plan". The Court granted this motion and issued an Order requiring "that periodic progress reports concerning the status and work product of the Sea-Tac Airport and Vicinity Master Plan shall be furnished by King County to the plaintiffs' attorney, and that said reports shall be furnished at not less than six week intervals during the period the study is in progress."

5. The Sea-Tac Airport and Vicinity Master Plan, subsequently named the Sea-Tac Communities Plan, involved an effort by the Federal Aviation Administration, the Port of Seattle, King County, and local citizens. The principal goal of the plan was to attain maximum compatibility between Sea-Tac airport and surrounding communities. George Buely and George Saito of the FAA obtained a grant of approximately $600,000 which paid two-th of the cost of the Sea-Tac Communities Plan. The Port of Seattle and King County contributed about $100,000 each in services to the plan. To accomplish its goals, the Sea-Tac Communities Plan recommended the implementation of drainage and water quality improvements, park and recreation improvements, the establishment of comprehensive noise remedy programs, and an agreement by the Port and King County to fulfill the staff and budgetary needs of implementing the plan. I was asked to be a member of the Citizens Committee that was created to participate in the Sea-Tac Communities Plan and assisted as a citizen member on the plan's Water Quality and Drainage Study Committee.

6. In November 1973 the Sea-Tac Communities Plan: Six-Month Summary Report was completed. A copy is attached hereto as Exhibit 2. The major findings of the Sea-Tac Communities Plan were identified in the plan's Phase I conclusions:

AR 036405

> The Airport site has adequate capability to accommodate foreseeable air traffic demand. No major expansion of the site is required.
>
> Noise exposure has peaked and, although expected to decrease with time, will remain a significant environmental problem in certain areas.
>
> Overall size of the study area population, some 137,000 in 1970, has generally stabilized; only minor increases are expected during the next 20 years.
>
> Employment in the area, especially at the Airport or as related to Airport activities, is increasing.
>
> No insurmountable problems relative to air and water quality have been identified to date. [3]

7. I attended many meetings and discussions with Port of Seattle and King County representatives in conjunction with the Sea-Tac Communities Plan concerning water quality and drainage problems existing in the Miller Creek Basin. One of the issues which arose in the course of these committee discussions was a proposal which contemplated the rechannelization of Miller Creek in order to extend highway 509. In a November 30, 1973 memorandum to the Chairman of the Sea-Tac Community Plan's Policy Advisory Committee, Urban Development Sub-Committee member Bruce Mecklenburg stated "the Water Quality & Drainage Task Force, is compelled to document its feeling on this." He. noted the Plan's Phase I technical consultant had concluded that the Miller/Walker Creek drainage system "... is presently inadequate to handle the runoff." Mr. Mecklenburg wrote "[t]he wetland East of Des Moines Way between South 168th and South 176th is a critical element in the streams' drainage system ..." and commented on the Washington State Department of Highway's announced intention "to shortly begin construction on a highway 509 extension from South 160th the south 168th ..."

[3] The Sea-Tac Communities Plan: Six-Month Summary Report, November 1973, Summary

8. Mr. Mecklenburg noted "In as much as both Miller Creek and Walker Creek are alre over burdened with storm drainage, the addition of 10 acres of nearly impervious paving and 29 acres of nearly impervious grassy slopes cannot be tolerated without some positive assurances that this increased storm runoff will be completely controlled. Finally, his memorandum stated "the contemplated rechannelization of Miller Creek into some 400 feet of culverting is totally unacceptable essentially precluding any subsequent resortation [sic] of the creek into a natural streambed as part of our overall program to achieve a continuous pedestrian recreational footpath along the creek." A copy of this memorandum is attached hereto as Exhibit 3.

9. Numerous meetings of the Water Quality and Drainage Study Committee took place during 1973 and 1974. During these meetings and discussions related to the Sea-Tac Communities Plan representatives of the Port of Seattle stated that one of the purposes of Sea-Tac Communities Plan was to adopt land use planning for the communities affected Sea-Tac Airport which would enhance the residential areas around Sea-Tac airport and prevent them from deteriorating. At these meetings Port officials emphatically stated to citizens who participated on the committees that the second runway was the last expansion project at Sea-Tac airport. I particularly remember that Port of Seattle Commissioner Paul Friedlander stated "This is enough. We cannot ask these communities to take any more." The assumptions set forth in the Sea-Tac Communities Plan provided the basis for the stipulated settlement agreements which were reached with the Port of Seattle and King County on behalf of the residents in the Miller Creek basin.

10. A stipulated settlement agreement of the lawsuit with defendants King County and the Washington State Highway Commission was reached in October 1974. The agreement titled Stipulation and Agreement for Settlement. was filed in King County Superior Court under Case No. 726259. A copy of this agreement is attached hereto, as Exhibit 4. Provisions of this stipulated settlement agreement prohibit changes made to Miller Creek and the Miller Creek Basin. Certain provisions prohibit increasing the quantity of water flow in Miller Creek. Other provisions require improving water quality in Miller Creek and prohibit any future channelization of Miller Creek:

. . . .

> WHEREAS, the parties have reached agreement on the general direction and nature of future King County hydraulic planning and construction activity in the Miller Creek Drainage Basin;
>
> WHEREAS, it is understood by all signatories that breach of this settlement agreement may result in a refiling of the lawsuit;
>
> . . . .
>
> THEREFORE, in consideration of the promises exchanged herein, the parties agree as follows;
>
> 1. King County and the Washington State Highway Commission recognize that serious flooding and drainage problems have existed in Miller Creek drainage basin for a number of years, that such problems will increase in the future as development increases, and King County agrees that corrective programs and drainage facilities are required and should be implemented as promptly as possible.
>
> 2. King County Department of Public Works, Division of Hydraulics, pledges the use of $65,000 in remaining revenue sharing funds for further planning and design study in the Miller Creek basin. Said funds will be expended upon completion of the RIBCO Urban Run-off and Basin Drainage Study and the Sea-Tac Communities plan. The Division of Hydraulics anticipates that such further planning and design studies will take place during 1975.

3. King County agrees that it has abandoned the total channelization of Miller Creek and agrees that will not in the future attempt the channelization of Miller creek except in limited amounts in connection with retention facilities.

4. Plaintiffs acknowledge and recognize there are numerous possible methods of maintaining the character and quality of Miller Creek and further recognize that there are other residents and property owners in the Miller Creek basin whose views as to project design and implementation will also be considered equally by King County. Plaintiffs also recognize that the King County council will have final approval as to the design, location, scope and nature of any project in Miller Creek Drainage basin. The division of Hydraulics will, however recommend to the King County Council and will use its best efforts to achieve the programs, concepts and agreements contained herein.

5. King County acknowledges the long term and sincere concern of numerous citizens in the Miller Creek Basin in maintaining the quality and integrity of the creek and guarantees continued solicitation of citizen input in the final selection of a design solution.

6. King County Surface Water Utility Board, creat by Council Motion 1478, will present to the Council during October 1974 its report calling for the creation of a county-wide surface water utility pursuant to the terms of the County Services Act, RCW 36.94, and requesting initial funding of $1 million. The creation of such an utility requires comprehensive sub-basin planning of detailed surface water management solutions and would permit the levying and collecting of service charges within each sub-basin in which a solution is planned and initiated.

7. Upon completion of the planning and design studies for the Miller Creek basin as provided herein, the surface water utility will prepare a sewerage general plan for the Miller Creek basin. The surface water utility will use its best efforts to obtain approval of said plan by the King County Council, the requisite review committee and any other governmental agencies having authority or jurisdiction over the plan area.

8. Upon completion of the Miller Creek sewerage general plan, the surface water utility will proceed as soon as practicable with implementing the necessary financing so that work pursuant to the plan may be initiated. Without limitation of any appropriate method of financing, King County will impose the necessary charges on all property owners within the Miller Creek Basin and will consider the levying of rates and charges based on impervious surface areas.

9. The Washington State Highway Department will recommend to the Washington State Highway Commission that the Washington State Highway Department pay any assessment levied by King County based upon the assessments levied upon other property owners in the Miller Creek basin in accordance with the impervious surface area of state highways (SR 509 and SR 518) owned by the Washington State Highway Department in the Miller Creek drainage basin as such drainage projects implemented by King County benefit those highway systems.

10. Upon approval of the sewerage general plan and obtaining the necessary financing, King County will proceed with the construction of appropriate facilities, as set forth in said plan which will:

a. improve the water quality of Miller Creek;

b. prevent surface water from being collected and discharged into Miller Creek in excess of its natural capacity;

c. maintain or improve the present character and appearance of Miller Creek.

. . . .

16. King County will attempt to design and construct future public works, subject to technical considerations, and regulate private projects in the Miller Creek Drainage basin so that such projects will not adversely affect the present character of Miller Creek or increase the quantity of water which flows into Miller Creek.

17. In the event this agreement is not implemented, plaintiffs may refile said action, and defendants agree not to raise any defenses based on the statute of limitations.

. . . .

19. A schedule of planned implementation of this agreement shall be provided to plaintiffs within f days of the date of the agreement by King County and King County shall use its best efforts to follow said schedule and shall advise the plaintiffs concerning any possible changes in said schedule and reasons therefore. [4]

. . . .

10. In November 1974 the King County Council adopted a motion "relating to comprehensive surface water planning and management, water shed protection, and providing for the development of a Surface Water Utility in King County." A copy of this motion is attached hereto as Exhibit 5.

11. The above described stipulated settlement agreements remain in full force and effect, and plaintiffs have not waived, nor has the court excused defendants from observing the said agreements, which include the following provisions:

a. prohibiting future channelization of Miller Creek; and

b. requiring that future projects located in the Miller Creek Basin watershed be designed to maintain and improve the water quality of Miller Creek; and

c. requiring that the King County Sewerage General Plan prevent flow rates in Miller Creek that exceed the creek's natural capacity; and

d. requiring that the King County Sewerage General Plan maintain or improve the present character and appearance of Miller Creek.

e. requiring that to the extent that the addition of new impervious surface areas and fill areas discharge water into Miller Creek in excess of its natural capacity, such new surface areas constitute a violation of the settlement agreements; and

[4] Stipulation and Agreement for Settlement as to Defendant King County and Washington State Highway Commission, Kludt et ux., et al. v. King County and State of Washington Highway Commission, King County Superior Court, Case No. 726259 dated October 1974.

f. requiring that the stormwater pollution prevention plan and erosion and sedimentation control plan in the Miller Creek Basin provide for the continued maintenance of the existing North Clear Zone Detention Pond described in Exhibit A of the Stipulation and Order of Dismissal as to Defendant Port of Seattle; and

g. requiring that the existing North Clear Zone Detention Pond facility described in Exhibit A of the Stipulation and Order of Dismissal as to Defendant Port of Seattle maintain a maximum discharge rate of 40 cubic feet per second; and

h. requiring that any action affecting the storage capacity and maximum discharge rate of the existing North Clear Zone Detention Pond as described in Exhibit A of the Stipulation and Order of Dismissal as to Defendant Port of Seattle constitutes a violation of the settlement agreements; and

i. requiring that drainage from additional facilities constructed at Seattle-Tacoma International Airport which causes the natural capacity of Miller Creek to be exceeded constitutes a violation of the settlement agreements.

12. At the time of settlement all parties agreed that the violation of any of the provisions of the above stipulated settlement agreements constitutes grounds for refiling of the lawsuit.

13. At the time of settlement all parties agreed that the provisions of the above stipulated settlement agreements inure for the benefit of the successors and assigns of the above named Plaintiffs and Defendants, including citizens, municipal corporations and public works facilities located in the Miller Creek Basin.

14. Finally, that at the time of settlement was reached, all parties agreed that the provisions of the Stipulation and Order of Dismissal as to Defendant Port of Seattle and the Stipulation and Agreement for Settlement with King County, inure for the benefit of all parties concerned with maintaining the provisions of the above stipulated settlements agreements.

I declare under penalty of perjury that I believe the foregoing statements to be true and have personal knowledge of the facts stated herein.

Executed at Seattle, Washington this 30 day of December, 1995

Helen D. Kludt

Helen D. Kludt

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Barging has been proposed instead. However, as the chart shows on the next page this will require operating Maury Island at about 540,000 times the normal mining rate of 10,000 cubic yards a year. It will require barging at about 5 times their previous all time record for a period of about 5 years assuming they haul 24 hours a day year round. If the FEIS 270 day mitigation limit of hauling in dry weather is imposed as well, it will take **NINE years assuming round the clock barging, six days a week, 25 tons per day**. Twenty-five tons per day will require three to four barges per day (see references listed under chart on next page).

11

Table 1: Barging Rate Does Not Support Current Schedules

Quantity /3/	Barge Rate	Years to Complete
27 MCY	Maximum Pre-Shoreline Act Barge Rate /4/	21
27 MCY	Maximum Post Shoreline Act Barge Rate (1978) /4/	29
27 MCY	6 days per week, 270 days dry weather period per FEIS, proposed record breaking 25 tons per day	9

/3/ Quantity needed in mining correspondence (ref. /4/) indicates only 24 tons needed. 24 tons equates to 16 million cubic yards (myc) assuming 3000 lbs per cubic yard. Quantity for total Project now exceeds 27 million cubic yards

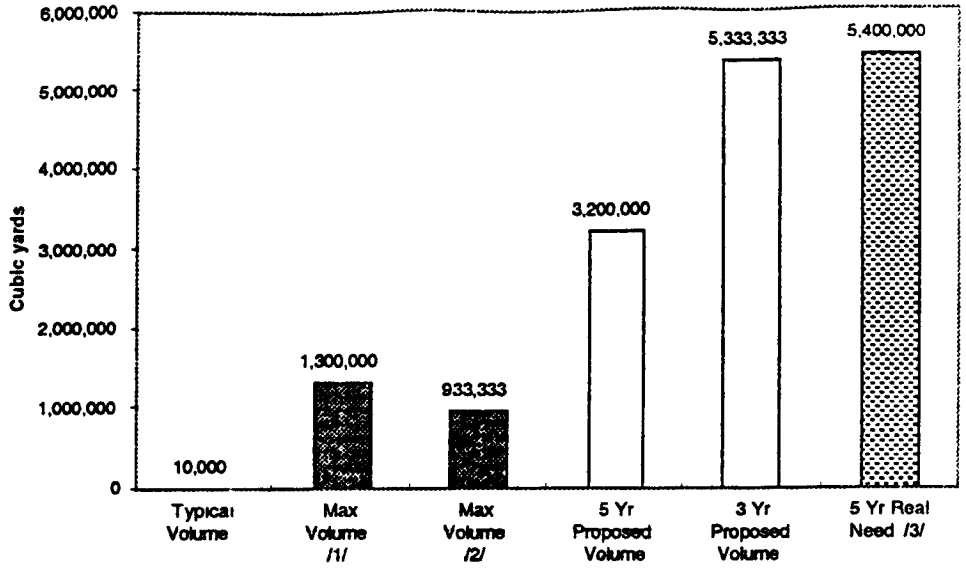
/4/ Calculations based on data from Hillis, Clark, Martin & Peterson," Re:Lone Star Northwest's Sand and Gravel Quarry, Maury Island", To Mark Mitchell, dated 24 February 1998 and Hillis, Clark, Martin & Peterson," Lone Star Northwest's Sand and Gravel Quarry, Maury Island", To Fred White, dated 19 February 1998. Also assumed pit run to be 3000 lbs per cubic foot.

12 Where will they unload the fill? Then, how will it get to the airport? Will wetlands

13 be impacted by conveyer belts or new piers? Whether the foreign owned

14 company can get permission to mine arsenic laced fill jeopardizing Maury Island aquifer, Highline Aquifer and possibly the Vashon Island aquifer also needs to be established to determine feasibility.

Muary Island Annual Mining Volumes (cubic yards) /4/



/1/ Max volume prior to Shoreline Act (see /4/)
/2/ Max volume after the Shoreline Act (see /4/, 1978 Terminal/Pier 37)
/3/ Quantity needed in mining correspondence (ref. /4/) indicates only 24 tons needed. Real quantify for Project exceeds 27 million cubic yards
/4/ Calculations based on data from Hillis, Clark, Martin & Peterson," Re:Lone Star Northwest's Sand and Gravel Quarry, Maury Island", To Mark Mitchell, dated 24 February 1998 and Hillis, Clark, Martin & Peterson," Lone Star Northwest's Sand and Gravel Quarry, Maury Island", To Fred White, dated 19 February 1998. Also assumed pit run to be 3000 lbs per cubic foot.

15 Recent bids on Phase 1 of the Project came in 23 % to 48 % higher than the Engineer's recent estimate, another indicator that schedules and costs are underestimated. Considering all the cost and availability fill issues that have arisen subsequent to the release of the SEIS, other alternatives need to be seriously considered.

16 The following table compares alternatives using cost/benefit factors that need to be considered in addition to the number of acres of wetlands impacted. I believe the risk to the world's food chain is greatest when destroying Sea-Tac's wetlands due to their close proximity to Puget Sound and their already marginal functionality.

Although new technology at Sea-Tac can better fill the capacity gap than a Third Runway from a cost/benefit point of view, neither can provide the level of capacity increase desirable for the region.

Alternative Comparison - See Legend next page

Trade Factors	Alternatives							Comments on A - Proposed Runway over 12 St.
	A	B	C	D	E	F	G	
Aircraft taxi accident rate	R	G	R	G	G	G	G	Over 21% increase per FEIS (Greater if use realistic number of operations)
Air space accident rate	R	Y	R	G	G	G	G	Uses same air space as existing Sea-Tac runways & Boeing Field
Ability to meet 2010 capacity needs	R	R	R	G	G	G	G	Exceeds Severely Congested* per FAA in SEIS
Ability to meet 2020 capacity needs	R	R	R	G	G	Y	Y	Exceeds theoretical capacity before 2020
Capacity impacts on nearby airports	R	R	R	G	G	G	G	Reduces Boeing Field per FAA in FEIS
Cost per passenger	R	G	Y	G	G	G	G	World Record Cost
Cost per pound cargo	R	G	Y	G	G	G	G	World Record Cost
Long enough for big jets to land	R	G	R	G	G	G	G	8500 ft is so short they must be planning an extension already
Drinking water risk	R	Y	Y	?	?	?	?	Seattle and Highline's drinking water is underneath airport. Risk of excavating seismic anomalies not addressed
Salt Marsh Pollution Risk	R	Y	Y	G	G	G	G	North Parking Lot lack of sedimentation controls already damaged Miller Creek which empties out to a marsh
Puget Sound Pollution Risk	R	Y	Y	G	G	G	G	Glycols dumped directly via sewer pipe. Airport less than 10,000 feet to Sound
Landslide Hazard Risk	R	G	G	G	G	G	G	Retaining wall too steep so slide is inevitable - Like 1st Ave that sunk in 1997
Density of Population impacted	R	R	R	G	G	Y	Y	Most densely populated area in most dense WA county

16

Legend -
R - Red - Severe problem
Y - Concern needs to be evaluated further or project requires more definition to determine if G or Y
G - Far superior to Alternative A
? - Not evaluated by author

Alternatives Code
A - Current Plan, Runway almost 200 feet above existing ground
B - Existing runways with technology like San Francisco and Charlotte, or new technology slated for full implementation, etc.
C- Runway on existing property with technology
D- New Tenino airport
E- New Tenino Airport with light rail
F- Combination of existing airports such as Moses Lake, Paine Field etc.
G - Combination of light rail and existing airports

16

* Airports should not exceed practical capacity. The new runway exceeds "practical capacity" before it opens using FAA projections. When airports reach "severely congested", airlines use other airports due to unacceptable delay times. Theoretical capacity is normally economically unacceptable. See my SEIS comments for references.

Misc. New Input - Supplements prior submittals

17

Summer of 1996 Angle Lake was lower than the residents have ever seen it and feared losing it. Was this related to the new fill construction project at the south end of the airport (350,000 cubic yards)?

18

While at Miller Creek between 8 PM and 9 PM on 11 April 1998, there was visible pollution on the surface. Foam like rings ranging from the 1/8 inch diameter to about 2 inches diameter were visible floating down stream to the Sound. By rocks it had accumulated into piles at least 1 inch by 14 inches wide. The creek was covered with these floating circles that were obvious in the moonlight. When we swished a stick in the creek a somewhat fluorescent foam head appeared in the wake of the stick. When the stick was swished under the water to minimize the wake effect, the same almost fluorescent foam appeared. The magnitude of the light colored wake depended on

AR 036417

creek location and depth. The circles dissipated when touched by hand. It was a cold night and deicing operations would be required at the airport that night. 18

The 1997 water rate hike was attributed in part to the need to find more sources of water. While New York City is buying land in another part of their state for water, and Maryland is paying their farmers to leave their wetlands as pollution buffers, the Port of Seattle plans to destroy our pollution buffer and endanger the water underneath Sea-Tac airport (the aquifer). Seattle Water Dept. uses this water too, not just Highline. A Dept. of Ecology document admits to contamination of the uppermost aquifer. Some residents already complain of diarrhea that correlates with pollution events at the airport and will not drink beverages made with "airport" tap water. 19 20

This wetland mitigation of the Sea-Tac airport issue made front page news in the Sierra Club Cascade Sound April/May 1998 newsletter. It has been identified as one of the key areas for the South King County group to focus their efforts. The Sierra Club issued a resolution against the Third Runway a few years ago.

The expansion of Sea-Tac Airport is inconsistent with how other airports in heavily populated areas handle capacity increases and is inconsistent with preserving drinking water.

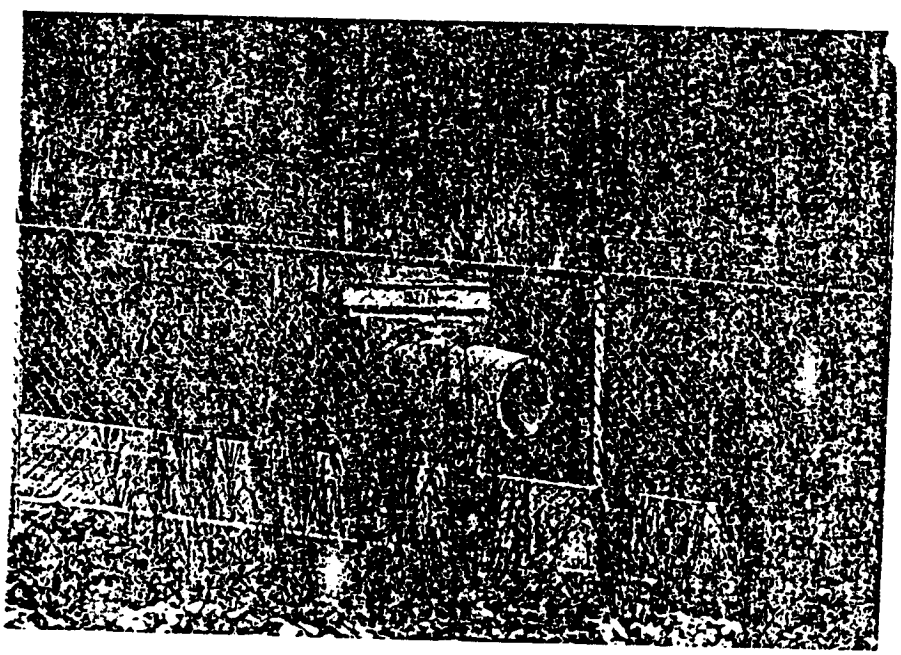
Thank you for this opportunity to comment. Please contact me if you want additional information. I am looking forward to the technical meeting COL Rigsby agreed to have the night of the April 9 hearing.

A Brown

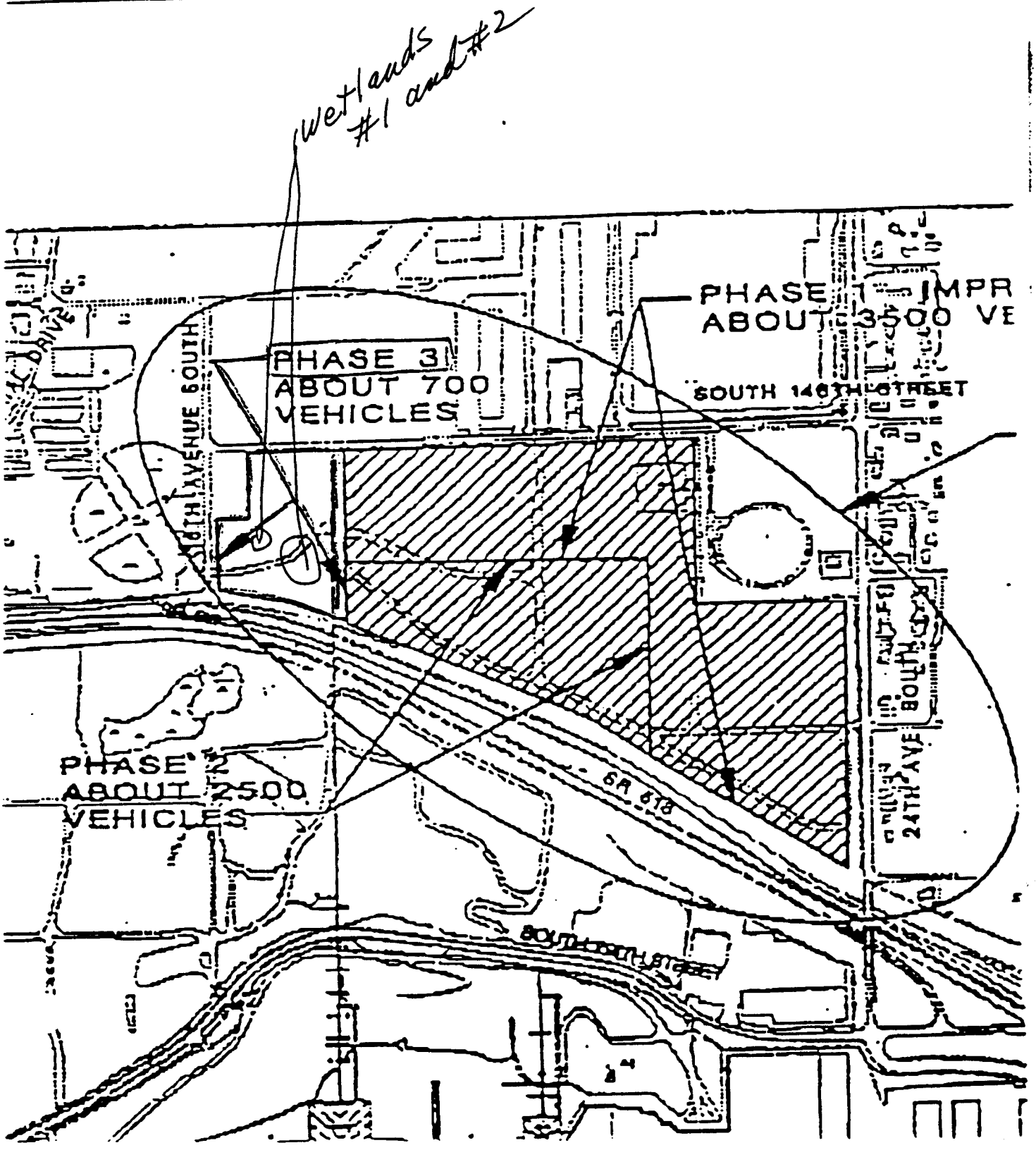
A. Brown
239 SW 139 Pl
Seattle, WA 98166
e-mail: brownadb@gte.net
pager (206)654-1533

Please also see "Addendum to Third Set of Comments"

SDN-2 JUNE 1997



Fall 1997 Renumbered
Now SDN-4


wetlands #1 and #2
PHASE 3
ABOUT 700
VEHICLES
PHASE 1 IMPR
ABOUT 3500 VE
SOUTH 148TH STREET
PHASE 2
ABOUT 2500
VEHICLES
SR 518
24TH AVE SOUTH

depends entirely on market conditions. If Lone Star obtains the fill job for the Port's third runway project, the company will mine approximately 25,000 tons per day for approximately three years. This will entail loading three to four 8,000-ton barges per day. (Only one barge can be tied up to the dock at any given time.) The load-out rate is 4,000 tons per hour; approximately eight hours of loading would occur each day. Mining activity could occur up to 24 hours per day. Portable screeners or crushers might also be used at the site. Mining activities will not require the use of any groundwater.

The only work to the dock and the conveyor system will be minor repair and replacement, e.g., repair some mechanical and electrical parts, and to replace those parts that Lone Star stores in order to prevent theft or damage--e.g., idlers and conveyor belts.

Lone Star is not proposing to do any mining within the shoreline. The pre-application maps have been corrected to show that there will not be mining in the shoreline.

2. Relationship between Current Proposal and Third Runway

The company wants to be in a position to bid on fill materials required for the Port of Seattle's third runway project at Sea-Tac Airport. The third runway will require a total of approximately 24 million tons of material over a period of three to five years. One million cubic yards will be bid in three months; the remainder of the project will be bid in 12-14 months. The Maury Island material is particularly well-suited to be used as fill material.

Even without the third runway, Lone Star would be reviewing its current permits in order to ensure that, if required by market conditions, the company could annually remove up to several million tons of material from the site.

C. SEPA Review

In a meeting prior to the pre-application meeting, the County advised Lone Star to submit a SEPA checklist in connection with this grading permit renewal. In evaluating the SEPA checklist, the County will also conduct periodic review pursuant to KCC 21A.22.050.

Lone Star has retained Huckell/Weinman Associates to prepare an expanded environmental checklist. Sub-consultants include Associated Earth Sciences, Inc. (groundwater analysis), TDA, Inc. (traffic), and McCulley, Frick & Gilman, Inc. (noise and air quality). These consultants are all experienced in analyzing Lone Star's other surface mining operations. Some of them participated in Lone Star's Dupont project, which currently excavates several million tons of sand and gravel each year. Because Dupont is constructed and operating, Lone Star has been able to monitor actual impacts

of the barge loading operation and found that the impacts are at or below the levels predicted by the consultants. Based on this experience, Lone Star expects no significant adverse impacts that cannot be mitigated, in which case no environmental impact statement would be required.

In preparing the checklist, Lone Star will use third runway volumes as a worst case scenario. If an environmental impact statement is required, it is likely that Lone Star will not be able to secure its permits in time to bid the third runway fill job.

D. Required Permits

The following permits were discussed at the pre-application meeting:

1. Grading Permit

Lone Star annually renews its current grading permit.

2. DNR Surface Mining Permit

Lone Star will update its Reclamation Plan with DNR. The plan was last amended in 1991. Drawings have been submitted to Dave Pierce of DNR for conceptual approval.

3. National Pollutant Discharge Elimination System (NPDES) Permit

Lone Star's current NPDES permit requires amendment if materials are conveyed over water and the conveyor is not enclosed.

4. Hydraulic Project Approval (HPA)

Lone Star does not expect to perform any work within the water. If it does, Hydraulic Project Approval will be required.

impact. New particulate laws?

5. Puget Sound Air Pollution Control Agency (PSAPCA)

A PSAPCA permit is required for dust emissions.

6. Shoreline Permit

As noted above, the dock and the conveyor system were constructed prior to the Shoreline Management Act. The dock and the conveyor system, which have been regularly maintained, have been used for large fill jobs--e.g., Pier 37--since the SMA was enacted. The County has previously decided that a shoreline permit was not necessary. The current proposal requires no mining or other development in the shoreline. Lone Star

3. Vessels

Finally, a shoreline permit is not required for the placement of barges at the dock. Recognizing the importance of vessels for purposes of commerce and navigation, DOE has specifically excluded navigational vessels, including barges, from the definition of "structure" or "development." *See* WAC 173-27-030(15). Since barges do not constitute "development," no permit is required for them.

IV. CONCLUSION

I hope this explains why we concluded that a shoreline permit is not required for the activities on Maury Island. We would appreciate confirmation as soon as possible.

Very truly yours,

Stephen H. Roos

cc: Mr. Ron Summers (via facsimile)
Mr. Allen Hamblen (via facsimile)

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Law Offices

HILLIS CLARK MARTIN & PETERSON

MEMORANDUM

Date: February 19, 1998

To: Fred White

From: Stephen H. Roos

Subject: Lone Star Northwest's Sand and Gravel Quarry, Maury Island

Below is a summary of the issues discussed at Lone Star's pre-application meeting on January 6, 1998.

A. History of Site

1. Zoning and Permitting

The site is designated as a Mining area under King County's Comprehensive Plan Land Use Map, adopted pursuant to the Growth Management Act (GMA). The zoning designation is Mineral Resources. Lone Star's current activities are covered by both a grading permit from the County and a Reclamation Permit from DNR.

2. Previous Mining Activities

Mining has occurred at the site since the early 1900's. A dock and a conveyor system for transporting material from the mine to barges were constructed about 30 years ago, prior to the enactment of the Shoreline Management Act. The dock and the conveyor system are used for major fill jobs requiring the use of barges. The Port of Seattle has been the biggest customer, and the level of activity at the site is generally linked to the Port's activities. The last major project at the site was Pier 37 in 1978, which required approximately 1.4 million tons of sand and gravel. Local operators have also exported mined materials by truck for local use.

B. Proposed Activities

1. Description of Activities

11-10-11

Lone Star intends to continue to mine, process and barge sand and gravel as is presently done and has been done in the past. As in the past, the volume of excavation

believes no shoreline permit is now required and will provide a written summary of its analysis. Mark Mitchell and Department of Ecology representatives will review Lone Star's project description and analysis of the shoreline issue, and also conduct a site visit.

D. Specific Environmental Issues

1) Groundwater is one issue that the Lone Star expects to analyze with particular care. The County agreed that this is a key concern.

2) The County's drainage representative indicated that he did not anticipate any particular drainage problems related to the project.

3) The County agreed with Lone Star's environmental consultant that a qualitative report for air quality will be acceptable, as well as a "level one" ground transportation analysis.

4) The County asked Lone Star to address the issue of heavy metals and the impacts from stripping of topsoil.

E. Community Relations

To date, Lone Star has conducted two meetings with residents of Vashon/Maury Island. The first meeting, held on December 3rd, was with the Sandy Shores and Gold Beach community associations. The second meeting was with the Vashon Community Council on December 15. The environmental checklist will address the concerns raised at these meetings. One primary concern was access to the beach. Lone Star will attempt to allow continued access to the extent that it is consistent with required safety measures.

The County scheduled a meeting with the Vashon Community Council for February 16.

F. Schedule for Processing of Permits

Lone Star anticipates submitting its permit applications and environmental checklist in March. In the meantime, the County will conduct a site visit.

When Lone Star is ready to submit its applications and checklist, the County will conduct another pre-application meeting to evaluate the adequacy of the studies. Following submittal of application materials, and a determination of completeness by the County, the County will publish a notice of application. It will then make a SEPA threshold determination, after which it will process the permit applications in accordance with the process described in the King County Code.

Lone Star expressed its concern that potential competitors be held to the same environmental standards and permit requirements as Lone Star.

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K.C.D.E.S.

Law Offices

HILLIS CLARK MARTIN & PETERSON

A Professional Service Corporation
500 Galland Building, 1221 Second Avenue
Seattle, Washington 98101-2925
(206) 623-1745 Facsimile (206) 623-7789

February 24, 1998

Mr. Mark Mitchell
King County Department of Development
and Environmental Services
900 Oakesdale Avenue S.W.
Renton, WA 98055-1219

Re: *Lone Star Northwest's Sand and Gravel Quarry, Maury Island*

Dear Mark:

At the pre-application meeting with Lone Star Northwest on January 6, 1998, we asked the County to verify our understanding that a shoreline permit is not required for Lone Star's continued use of the conveyor loading dock at its site on Maury Island. You suggested that we set forth our analysis in a letter so that the County and the Department of Ecology can review our conclusions and respond prior to submittal of an environmental checklist.

The County has concluded for over 25 years that the use of the conveyor loading dock to load barges with sand and gravel is a pre-existing use that is grandfathered under the Shoreline Management Act. As detailed in this letter, the County's planning and zoning designations for the site, the history of previous mining activities, and relevant law lead us to conclude that there is no basis for the County now to alter its prior determinations that a shoreline permit is not required.

I. BACKGROUND

Our review of the background of the Maury Island site discloses the following critical pieces of background information: 1) the land adjacent to the dock is zoned and designated for mining; 2) all necessary permits for mining and use of the dock for barge loading have been obtained and consistently updated; 3) the dock has been used to transport materials whenever market demand required large quantities of fill material; and 4) the County has allowed barge loading from the dock for over 25 years without requiring a shoreline permit. It is useful to examine each of these points in some detail.

A. DESIGNATIONS UNDER COMPREHENSIVE PLAN AND ZONING CODE

Lone Star's 250-acre site, located within a shoreline conservancy area, is both zoned for mining and designated under the King County Comprehensive Plan as a Mineral Resource Area. The Comprehensive Plan's mining designation is significant. The designation is reserved for sites in King County where "long-term mining operations" can continue "with minimal conflicts with adjacent uses and continued environmental protection." *See* 1994 King County Comprehensive Plan, at 108. Thus, the County has already determined that Lone Star's property is an appropriate location for sand and gravel mining. Significantly, this determination was made *after* the dock had been constructed and when it was evident that the dock's sole purpose was to transport mined materials. By designating the land immediately adjacent to the dock as appropriate for mining, the County has recognized that the owners will use the dock for barge loading of the sand and gravel taken from the quarry. Use of the dock is also consistent with the County's Shoreline Management Master Program, which allows mining uses within conservancy areas. *See* Master Program, at 20.

B. PERMIT HISTORY

Lone Star and the site's predecessor owners have obtained and consistently renewed all permits required for mining and exporting materials from the site. A permit from the Army Corps of Engineers was obtained in 1968 to construct the dock and conveyor system. In 1971, Lone Star's predecessor, Pioneer Sand & Gravel Company ("Pioneer") obtained a Surface Mining Reclamation Permit (#70-010256) from the Department of Natural Resources (DNR), and a clearing and grading permit (#1128) from King County. Both the reclamation and grading permits have been kept current since 1971.

C. PREVIOUS USE OF DOCK

The intensity of mining activity at the site has varied dramatically, depending on market demands. Because the conveyor loading dock is only used during periods of relatively high-volume mining, the extent of dock use has varied. Between 1968 and 1972, fill material from the site was purchased by the Port of Seattle for Piers 25, 86, 115, and others, resulting in annual volumes as high as 1.3 million yards. *See* 1977 Environmental Checklist. The dock was used more or less continuously during this period. Between 1972 and 1975, there appears to have been no mining or barge-loading activity. In 1978, approximately 1.4 million tons were excavated and sold to the Port of Seattle for Terminal 37, again requiring use of the dock. The Terminal 37 job appears to have been the last excavation to require barge-loading. Since 1978,

annual volumes set forth in the grading permit have been approximately 10,000 cubic yards.[1] Such volumes do not require use of barges.

We note that it is not unusual for mining levels to vary as they have at Maury Island. The King County Comprehensive Plan recognizes that "most sand and gravel resources are mined in phases in order to extract only that material a mine owner/operator can sell in the current market," and that, as a result, "often specific mines will be active for several years, then inactive for long periods." *See* 1994 King County Comprehensive Plan, at 110. In reviewing Lone Star's activities at Maury Island, the County has always understood that, as with other sand and gravel mines, the intensity of mining and dock use would fluctuate. Pioneer and Lone Star have consistently informed the County that levels of extraction depend entirely on market conditions, and the County's determination of nonsignificance in 1977 was based on a checklist which stated that "the rate of mining depends entirely on the market conditions and demand for this material for water delivery." *See* 1977 Environmental Checklist.

Recognizing that market conditions might quickly require high-volume mining activities, Lone Star has regularly repaired and maintained the dock. *See* Internal Memorandum of November 7, 1995 from Fred White. Lone Star also has regularly renewed its Aquatic Lands Lease with the Department of Natural Resources for the express purpose of operating and maintaining a "conveyor loading dock." The most recent lease renewal, granted in 1988 for a period of twelve years, states that the "permitted use" of the Lease is to "operat[e] and maintain[] a conveyor loading dock." A "plan of operations" included as an exhibit to the Lease states that "this Lease covers an area which includes a *permitted* dock and dolphins used for the shipment of sand and gravel."

D. PREVIOUS DISCUSSIONS REGARDING SHORELINE PERMIT

The dock was constructed in 1968, prior to enactment of the Shoreline Management Act, which did not become effective until June 1, 1971. The Act contains a grandfathering provision that explicitly authorizes pre-existing docks to continue without a shoreline permit. RCW 90.58.270(1). In accordance with this provision, the County has allowed Lone Star to continue using the dock since 1971 without obtaining a shoreline permit.

[1] *See* Memo of Fred White to M. Carey and R. Sandin, Nov. 7, 1995 ("Annual [grading permit] renewal volumes have averaged around 10,000 cubic yards"). White's statement is supported by various permit renewals in

The ability to continue dock operations without a permit was directly discussed in 1974, when Lone Star applied for its annual grading permit renewal. Lone Star explained in an "Environmental Assessment Worksheet" the reasons it was not seeking a shoreline permit:

> [T]here is no substantial development occurring within 200' of the high water line. Mining activity is and will be more than 200' from the high water line until some long time future year when site grading is done in developing final contours near the shoreline. . . . A shoreline permit is not needed until this substantial development occurs.
>
> Until such time of final grading, our activities within 200' of the high water line are operating and maintaining an existing dock and conveyor system used for loading our materials and the siting of temporary trailers and sheds used to store parts and operating supplies when mining activities are being conducted.

Along with the Environmental Assessment Worksheet, Lone Star's Operations Manager, Eugene Dale, submitted a letter to the Land Use Management Division of the King County Department of Community Development, which further explained that:

> The principal basis for [the company's decision not to apply for a shoreline permit] is that no substantial development is occurring within the 200-foot distance from the high water line. Our dock and loadout conveyor system have been in existence since 1968, and the activities in the shoreline area consist of the temporary location of tool sheds, office shed and parts trailers, all of which are either wheel-mounted or on skids to be taken in and out as may be required by the operation. The mining activity is being conducted [ ] behind the 200-foot line.

Four days after receiving the letter and the worksheet, the director of the Land Use Management Division, Edward Sand, confirmed that "[t]he continuation of quarrying activity, as described in [the above-quoted letter], will not require a Shoreline Management permit."

In 1977, as part of another grading permit renewal, Lone Star Industries submitted another environmental checklist. In this checklist, Lone Star reiterated that "the only activity in the shoreline area is the loading of barges over the existing dock by means of belt conveyors." The County issued another determination of non-significance without requiring Lone Star to obtain a substantial shoreline permit.

The County next considered use of the dock in 1992 when Lone Star applied for a shoreline exemption for repair work to the dock and conveyor system. In approving the exemption (No. L92SH133), the County gave no indication that Lone Star's continued use of the dock and conveyor system would require any kind of shoreline permit.

The County's most recent review of the need for a permit occurred in 1995, when Fred White of DDES reviewed the County's file to determine whether material could be barged from the Maury Island site without a shoreline permit. In an internal memo dated November 7, 1995, Mr. White concluded that renewed barge activity did not require a shoreline permit:

> While no material has been removed by barge for several years (late '70s, early '80s), [Lone Star] has performed maintenance on the loadout dock and has kept the facility in good repair . . . [Lone Star] has renewed its [grading] permit for 24 years, partially, at least, based upon the premise that material can be barged from the site under the existing [grading] permit. They have maintained the dock. We did not require the substantial shoreline development permit after receipt of the correspondence in 1974, and my review of the project would not support requiring one now.

In summary, ever since the SMA was passed in 1971, the County has allowed Lone Star and the predecessor owners to use the conveyor loading dock without a shoreline permit. As explained below, nothing in Lone Star's current plans for the dock requires the County to alter its conclusion that the dock is a grandfathered development and use.

II. PROPOSED ACTIVITIES

As stated in the project description submitted with the request for a pre-application meeting, Lone Star is not proposing to conduct *any* mining within the shoreline of Maury Island. Lone Star will continue to use the existing dock and conveyor system to load barges with sand and gravel. The only work that will be done to the conveyor system will be replacement of some electrical and mechanical components, conveyor belts, and conveyor idlers. Lone Star temporarily removed these parts from the system in order to prevent theft or damage. As for the dock structure, further repairs do not appear to be needed.

$ to get working.

III. LEGAL ANALYSIS

The activities under review do not trigger the need for a shoreline permit. The Shoreline Management Act ("SMA") authorizes pre-existing structures, such as Lone Star's dock, to continue being used without a shoreline permit. Moreover, the proposed repairs to the conveyor system constitute "normal maintenance and repair" and are exempt from the permit requirements

of the SMA. Finally, no permit is required to place barges at the dock because vessels are also exempt from the SMA.

1. Pre-existing Use

The SMA allows docks and improvements within the navigable waters prior to December 4, 1969 to be retained and maintained without a shoreline permit. The statute explicitly gives the State's authorization and consent to *any* "structures, improvements, *docks*, fills, or development placed in navigable waters prior to December 4, 1969." RCW 90.58.270(1). Since the conveyor loading dock was in existence prior to December 4, 1969, the County should continue to allow Lone Star to operate the dock without obtaining a permit.

DOE's regulations confirm that the SMA's permit system does not apply to pre-existing uses at Maury Island. DOE's narrow exceptions to the SMA's general grandfathering provision do not apply to Lone Star's activities. *See* WAC 173-27-070. First, the activity was not unlawful prior to the effective date of the act (June 1, 1971). Second, there was no unreasonable period of dormancy between the project's inception in 1968 and June 1, 1971. Third, the conveyor loading dock was completed by June 1, 1973. Fourth, the location of the dock has not changed to a different lake, river or tributary. And finally, the dock is not moving into a phase of substantial development that was not contemplated at the time of construction; barge-loading was the express purpose for constructing the dock, and the only additional work will be normal maintenance and repair, which does not constitute substantial development.

The intermittent use of the dock does not eliminate its grandfathered status. Such status is only lost if Lone Star demonstrates "an intent to abandon [the use] and an overt act or failure to act which carrie[s] the implication of abandonment." *See Andrew v. King County*, 21 Wn. App. 566, 572, 586 P.2d 509 (1978). Lone Star has never had such intent. As evidenced by the regular maintenance and repair of the dock, as well as the renewals of the Aquatic Lands Lease with DNR, Lone Star has done everything necessary to ensure that the dock was ready for use whenever market conditions required high-volume mining.

2. Repair and Maintenance

A shoreline permit is not required for "normal maintenance or repair of existing structures or developments." RCW 90.58.030(3)(e). The dock has been maintained under this provision. The repair work for the proposed conveyor system also fits within this definition.

It's sad to me to see how democracy works. The Port and their downtown special interest groups have control of the news media in Seattle. They send many lobbyists to Olympia to sway the legislators with their tainted propaganda. The Dept. of Ecology and the Clean Air people have hands-off any regulations involving the Airport. In fact, the Port operates above the law. They have too much power which they abuse.

In the History of the Port of Seattle by Padraic Burke it states that "Uncontrolled competition among ports has additionally led to a tunneling of vision among some port administrators and a rather calloused emphasis on development regardless of the resulting environmental damage." I fear this syndrome has infected the Port of Seattle and the Downtown Seattle Associations.

The Port of Seattle tells us that a third runway is needed to alleviate the problem of flight delays in bad weather. However, flight crews who fly for major airlines have told me that the Port's statement is an exaggeration. In fact, they say Sea-Tac is one of the best airports for on-time schedules.

I also saw in the newspaper last spring that Sea-Tac airport was Number 1 with on-time departures and 6th nationally for on-time arrivals. That's pretty good, especially when one considers some of the excessive airline scheduling at Sea-Tac.

When deregulation of the airline industry occurred in 1978 the airlines went "bonkers". It was pretty wild! All the airlines wanted to go everywhere. Some competed themselves right out of existence. But new companies sprung-up as if by magic and some of them were pretty short lived, but some are still going! I think things have settled down some now, but last spring I read in the Kiplinger Financial Magazine an article on airlines. It mentioned that the legendary investor Warren Buffett has said the "no airline is going to be a substantial business." I think he's probably wrong-- let's hope so.

However, there are now over 1000 airplane operations every day at Sea-Tac. I am told that 40% of the flights are commuter aircraft which handles about 8% of the passengers. I believe some of the schedules are excessive and should be scaled down.

These are a few examples of daily flights: 64 Seattle to Portland, 20 Seattle to Spokane. And then an example of "Shuttle Service": 75+ Seattle to the Bay Area (San Francisco, Oakland, San Jose).

I think the schedules need to be cut back to a reasonable number and a limit to how many flight are acceptable to provide good service. LAX put a limit on the number of flights they can handle. Boston stopped night flights quite some time ago.

I have travelled on trains in Europe and on the "Bullet Train" in Japan. It was a very pleasant experience. If we spent the same amount of money the Port is planning to spend for airport expansion to improve our rail system, the travelling people could probably be accommodated more efficiently.

Lastly, again quoting the History of the Port of Seattle is perhaps appropriate. "The dilemma the Port faced over growth and the resulting pollution was satirically drawn by two writers in a article for the Northwest Magazine section of the Sunday edition of the Post-Intelligencer. The writers looked ahead, supposedly, to the not-too-distant future when the Port of Seattle became the world's largest port, but because of all the pollution that resulted, no one lived in the city anymore."

Thank you for giving me this chance to speak.

Sincerely,

Helen D. Kludt

Helen D. Kludt
17529-13th S.W.
Normandy Park. WA 98166

Phone (206) 243-3292

Considering the beauty of the area and its history as described above, I feel that ***the addition of new outfalls from the Port of Seattle property must be prohibited***. The failure to provide any analysis of the impact of the proposed new outfalls is a serious issue that must be addressed prior to the issuance of a permit modification by the Department of Ecology.

Thank you for your consideration.

Sincerely,

Helen D. Kludt
17529-13th S.W.
Normandy Park, WA 98166
Phone 243-3292

Enclosure: Declaration dated December 30, 1995
Filed in King County Superior Court, June 24, 1996
Case No. 726259

15 February 1996

Expert Arbitration Panel
c/o Jerry Dinndorf
Puget Sound Regional Council
1011 Western Avenue, Suite 500
Seattle, WA 98104-1035
FAX (206) 587-4825

Dear Expert Arbitration Panel

My name is Helen Dorles Kludt. I have been involved with transportation all of my life. My father, Capt. Harold Dorles, was a sea captain and sailed ships to countries throughout the world. My late husband, Capt. Willis Kludt, was a pilot for Northwest Airlines and flew airplanes to many cities in the U.S. and the Orient. I worked for United Air Lines.

I used to be proud of the airline industry, but I can't say that I am proud anymore.

I have lived in Normandy Park for 43 years. My home is 2 1/3 miles west of the middle of the present Sea-Tac Airport. As I sit writing this morning, February 15, 1996, there has been a continual rumble and roar from jet aircraft all morning long. The noise from the airport has not lessened since 1990, or whatever the magic date is supposed to be. We are told by the Port of Seattle that noise has decreased. If it has it is certainly not discernible to the human ear. We keep being told that 85% of aircraft flying in and out of Sea-Tac have Stage III engines now, and that even though more airplanes will be flying here it will continue to get quieter. I know that the older jets -- 707, DC8 and 727 -- were very loud, however, even though the Stage III engines made a different sound, *no jet can ever be called quiet.*

The bigger the airport grows and encroaches into highly developed residential areas, the bigger the area of noise pollution for additional neighborhoods. Sea-Tac Airport could buy out the City of Normandy Park clear to Puget Sound, but what would that cure? It would only bring more airplanes in over the City of Seattle, damage our beautiful recreational water, clobber Federal Way and Tacoma, Vashon Island, and so on. This is not the place for more airport expansion!!!

The Port of Seattle along with the Downtown Seattle Chamber of Commerce has a obsession with *their growth*. It is obvious to me that they don't want another solution to airport expansion. They have manipulated every suggested alternative to defeat. They have such tunnel vision regarding *their own territory* that they can't see the damage they would create -- even to their own city.

.....from the desk of Helen Kludt, concerned citizen, activist for higher public standards

10 July 1996

Washington State Dept. of Ecology
Northwest Regional Office
3190-160th S.E.
Bellevue, WA 98008-5452

attn: Lisa Zinner, Facility Manager

re: Permit modification for permit No. WA002465-1
for the Port of Seattle, Sea-Tac International Airport

Dear Ms. Zinner

As a long-time resident of Normandy Park I am writing to express my concern regarding the above noted permit to allow the addition of new outfalls from the Port of Seattle property into Miller Creek.

History

I have lived on Miller Creek for many years. I also helped to write an history book for the City of Normandy Park, my part was the very early years.

Miller Creek has historic significance. It was a favorite fishing and clamming site for the Indians of the area. In fact, some say Miller Creek was the southern boundary of the Duwamish Tribe.

The first homesteader to arrive in the area was William H. Brown from Goteberg, Sweden. He filed Donation Claim 42 for 163 acres on December 5, 1853. His claim included lower Miller Creek and its estuary on Puget Sound.

The creek was named for William and Clarinda Miller. They lived on the original Brown claim in the 1890's until about 1906. "Miller's Beach" was a popular gathering place for family and community affairs. The 4th of July celebration was held at Miller's Beach for many years. Miller's Beach was a popular destination, not only for local people, but some folks came from Seattle, Renton, Tukwila, Foster and other places around the Sound. Some arrived by boat especially after a dock was built at Crescent Beach, just north of Miller Creek, in 1890.

When Alvin Alvenslaven and Russell Phinney developed Normandy Park in 1926, they dedicated a seventeen acre track which includes the Miller and Walker Creek estuary and about 1,000 feet of beach, as community property. It is owned by all property owners living within the original 1,700 acre tract of Normandy Park.

Miller Creek and its tributary Walker Creek are very special to many in the Highline community. It was a prolific salmon spawning stream into the 1950's. There were many trout and crawdads. When Willis, my husband, and I moved here in 1953, Miller Creek had been designated "Juvenile Fishing Only" and "Opening Stream Day" was observed. Over the last several years, the Des Moines Chapter of "Trout Unlimited" has been working to improve the fish population in Miller and Walker Creeks.

In 1959 a large Community Center was built on Lot A and in 1970 a double tennis court was built. There is a delightful pond full of well-fed ducks, a large grassy field and there are picnic tables on the beach. Clamming is still active at low tide. The area is now named Normandy Cove. It remains a special and much used recreational facility.

The Law Suit

In 1970 Miller Creek owners were asked by King County Public Works to sign a paper to give the county permission to enter their property so that improvements could be made to the creek. No one would sign until they saw the plans. After the plan was revealed no one would sign the papers.

According to the plans, the beloved creek was to become a LosAngeles-type drainage ditch. It was to accommodate storm water run-off from the 2nd runway at Sea-Tac Airport, Highways 518 and 509 (highways that serviced the expanding airport facilities). King County also planned to increase their drainage into the stream. Miller Creek which is about 10 feet wide through my property, would have become 62 feet wide, 3 feet deep, with a 2 foot top dike.

The whole community was appalled. A law suit was filed on July 24, 1970. A restraining order was issued on August 4, 1970 that stopped all construction on projects related to the channeling of Miller Creek.

I am enclosing a declaration which gives the important points of the settlement reached with the Port of Seattle in 1972 and with King County and the Washington State Highway Department in 1974.

These settlements are permanent and any additional outfalls that will increase the flow above the capacity of Miller Creek will be illegal. Walker Creek is a tributary to Miller Creek and the same rule should therefore apply.

Much of the course of Miller Creek and Walker Creek has been maintained in natural condition. In 1992 the City of Normandy Park bought, from the Ron Walker family, approximately 30 acres in the Miller Creek ravine west of First Avenue. It is in pristine condition and will be maintained as open space with limited woodland trails.

November 30, 1997

Water Quality Permit Coordinator
Department of Ecology
Northwest Regional Office
3190 160th Avenue NE
Bellevue, WA 98008

RE: Written Comment on Draft NPDES
Permit # WA-002465-1

From: Helen Kludt
17529 13th SW
Seattle, WA 98166

I attended the DOE meeting at the Burien Library on November 3, 1997. I have read the Draft of the NPDES Permit for the Port of Seattle.

The Draft covers the requirements for the NPDES Permit very thoroughly but.....I am skeptical about its enforcement because of some loopholes.

1. On page 18 - S4 Compliance Schedule
The last paragraph gives the Port of Seattle 5 years to implement the AKART determination. WHY?? That is even after this permit **expires!**

2. Page 37 - S13 SWPPP - For Construction Activities
I do not agree that 5 acres or less should be exempt from construction activities "including clearing, grading, filling and excavation". All of this kind of activity should require procedures to prevent pollution of stormwater.

3. Page 31 - WA-002465-1 - Fact Sheet for NPDES Permit
Ground Water Quality Limitations
"The IWS collects fuel spills that occur occasionally during day-to-day operations at the airport.———The spills are stored in the IWS lagoons until they are processed through the IWTP. A potential release to ground water could occur if the IWS collection system and lagoons did not properly contain the fuel spills.———Lagoons 1 and 2 are lined with a polyethylene liner that effectively contains the fuel spills. Lagoon 3 has not yet been lined, but will be lined in the next few years." This casual statement "the next few years" is not acceptable. Lagoon 3 is by far the largest holding pond and should be lined now.

4. Walker Creek is a tributary of historic Miller Creek. Walker Creek flows into Miller Creek a short distance from its mouth on Puget Sound. The main headwaters for Walker Creek are in a large marsh on the west side of Sea-Tac Airport at 12th and 176th South to Des Moines Memorial Drive. Preservation of these headwaters are important to the survival of this salmon bearing stream. I only saw a reference to Walker Creek once in the Draft——"as a tributary of Miller Creek." Your map of the Miller Creek watershed should show the South end of the watershed draining into Walker Creek and show it as a separate watershed before the stream joins Miller Creek a few hundred feet from Puget Sound. It should also be tested for pollution at the upper reaches of the creek.

Past performances by management at Sea-Tac Airport do not inspire one to have confidence in their operational procedures. I have been involved with the Port of Seattle for many years. The more knowledge that you experience with the Port of Seattle, the more their misuse of power

becomes apparent. Their manipulation of numbers and facts, control of the newspapers and the press in general, and outright misinformation to the public occur regularly. They seem to have control of other government agencies that exempt them from rules that the general population have to abide by. As one of the engineers from a firm that had dealt with the Port of Seattle was heard to say, "No one else would ever get a permit to do this type of project where the damage to the environment is so vast."

The Port of Seattle has been given far too much power by the State of Washington Legislature. Maybe it was necessary to set-up the Port Commission in that way in 1911 - but that's a long, long time ago and a whole different way of life. No other State in the Union has a Port Commission that is chartered like the Port of Seattle.

The Port has such tunneling of vision that it cannot see beyond its own ambitions and therefore doesn't seem to care how much damage they cause to other communities. Too much power has bred corruption and the Port of Seattle shames the whole State of Washington.

I hope that these comments are taken seriously and fairly evaluated. Much time and effort has been put forth to provide this input.

Sincerely,

Helen D. Kludt

- $38,000 - Council Administrator's Contingency Fund, to be allocated as follows:

  $20,000 - full-time Task Force coordinator

  $10,000 - full-time clerical/administrative secretarial support

  $6,000 - benefits

  $2,000 - equipment, office materials, and travel

- $20,000 - to be allocated to 4 county offices as follows:

  $5,000 - per office -

  Land Use Management

  Hydraulics

  Long-Range Planning

  Prosecuting Attorney

- $20,000 - consulting services for rate study, bond counsel work, initial environmental assessment.

6. The Council hereby acknowledges that the forementioned appropriation, if approved, is an interim appropriation, with the actual implementation and initiation of a Surface Water Utility in King County requiring, as noted on Page 15 of the October 1974 Report, at least $1 million. It is understood and anticipated by the Council that the second stage of planning, as delineated in this Motion and scheduled for completion by the end of 1975, will further clarify the specific actions which the County must take in commencing the operation of a Surface Water Utility in King County.

7. The Council requests the Task Force to submit a detailed work program and activity schedule for Council review within 90 days after formation of the Task Force and passage of the funding ordinance.

AR 036441

8. The office of the Task Force coordinator will be temporarily located within the Council Administrator's Office until the tasks delineated in Section 4 of this Motion are completed and ultimate administrative responsibilities for surface water management within King County have been formalized.

9. The Task Force and its coordinator will be available, upon Council request, for periodic progress report. to the joint committees of Public Works and Transportation and Community and Environmental Development.

PASSED this _____ day of _____, 1974.

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

_____
Chairman

ATTEST:

_____
Clerk of the Council

AR 036442

KINGCO PLAN EVALUATION GUIDELINES:

(a) Non-structural solutions to a problem are preferable to structural solutions.

(b) Multi-purpose facilities should be developed rather than single-purpose facilities whenever possible.

(c) Before looking at solutions which involve developing additional resources, all means of conserving resources should be explored including reuse, recycling, resource recovery and conservation programs.

(d) Area-wide management is preferred over fragmented management.

(e) Environmental concerns should not be outweighed by least-cost solutions.

(f) Energy-conserving solutions are preferred.

(g) Flexible, short-step solutions should be considered before larger, more permanent solutions.

(h) Costs should be allocated equitably and should be charged as much as possible to those who benefit from the action and to those who have created the problem.

(i) In the design of urban drainage systems, a first priority should be given to preserve, protect, and enhance where practicable, the stream environment.

3. The Council hereby formalizes the existence of a Surface Water Utility Task Force to coordinate the necessary implementing activity, composed of representatives from the following departments, divisions, and offices:

Department of Public Works and Transportation,
Division of Hydraulics

Department of Budget and Program Planning

Department of Community and Environmental Development,
Division of Land Use Management

Council Administrator's Office

Office of the Prosecuting Attorney,
Civil Division

Seattle-King County Department of Health and Social Services

The Council hereby requests the support of a citizens' committee of the Policy Development Commission to advise the inter-

AR 036443

departmental Task Force and the Council throughout the planning and developmental stages of the Surface Water Utility.

Further, effective citizen involvement from each of the major sub-basin areas should be used to guide the development of the specific plans for each of these major areas.

4. The Task Force shall be responsible for completing the following tasks within one year from the date of passage of implementing ordinance:

- exploring all alternative funding mechanisms, including but not limited to, service charges; Federal Water Pollution Control § 208 planning funds and §201 construction grants; general obligation and revenue bonds; and Housing and Community Development Act Funds;
- preparing alternative administrative structures for the operation of a surface water program;
- consulting with other jurisdictions regarding related activities, including, but not limited to, the RIBCO Urban Runoff and Basin Drainage Study, the designation of an areawide waste treatment management entity, and the initiation of drainage utilities by cities and towns within King County;
- arranging for the preparation of an Environmental Impact Statement assessing the environmental impact of the proposed action;

5. To effectuate the forementioned duties of the Task Force, the Council hereby directs the preparation of an ordinance for Council consideration appropriating $78,000 to fund the Task Force's activity for one year;

AR 036444

Introduced by: Dave Mooney
Bernice Stern

MOTION NO. _____

A MOTION relating to comprehensive surface water planning and management, watershed protection, and providing for the development of a Surface Water Utility in King County.

WHEREAS, the King County Council passed Motion 1478 on March 11, 1974, which created a Surface Water Utility Board to determine the feasibility of establishing a Surface Water Utility in King County; and

WHEREAS, Motion 1478 required the Board to submit a report of its findings to the County Council, a copy of which is attached to this Motion; and

WHEREAS, the County Council, after reviewing and considering the Board's Report, deems further county implementing action both necessary and appropriate in the area of comprehensive surface water management,

NOW, THEREFORE, BE IT MOVED by the Council of King County:

1. The King County Council hereby acknowledges receipt of the Surface Water Utility Report, dated October 1974, and approves the Utility Board recommendation, contained on pages 3 and 15 of the Report, that the county acknowledge the urgency of the surface water problem and view the development of a county-wide surface water utility as a priority item for 1975 county energy and revenue.

2. The Council adopts as planning guidelines for the further development of a Surface Water Utility the criteria prepared by the Board, as set forth on pages 5 through 8 of the Report, which provides as follows:

(a) A Surface Water Utility should be county-wide in scope.

(b) Initial funding for planning and administration should come from the general fund, either through the creation of a revolving fund or through a "one-time, lump-sum" appropriation.

Exhibit 5

(c) A substantial initial monetary investment will be required for planning and administration for the first 1 - 2 years. These costs cannot be recovered until the 3rd or 4th year of operation via the assessment of benefit charges.

(d) Four kinds of costs must be dealt with by the utility: (i) planning; (ii) administration; (iii) maintenance and operation; and (iv) capital costs.

(e) Planning and implementation of proposals should proceed on a sub-basin by sub-basin approach. All sub-basins should be prioritized according to magnitude of the problems, thereby indicating which areas should be addressed first.

(f) The public who will benefit from and pay for King County's surface water management service must be sufficiently informed and involved in the defining of solutions to water control problems in order to knowledgeably support the formation of a county-wide utility. Therefore, additional public education on the nature of the problem and the proposed solution and meaningful opportunities for community input must occur within each sub-basin to effectively implement both the county-wide utility and sub-basin water management solutions.

(g) The terms of the County Services Act (RCW 36.94) should guide the operation of the utility.

(h) There are various revenue sources available to the utility, all of which should be pursued and used in combination - general obligation bonds, revenue bonds, service charges, §208 planning funds under Federal Water Pollution Control Act, §201 construction funds, and millage.

(i) A county utility will have to be cognizant of the existence of related surface water managers - cities and towns, special districts. Interlocal cooperation agreements should be utilized to effectuate cooperative and unified management.

(j) Service charges should not be levied until each respective sub-basin plan is complete.

(k) The utility should be governed by the County Council.

(l) An administrative agency responsible for the utility's operations should be designated.

(m) The relationship between land use and runoff generation is an essential aspect to surface water management. The utility should therefore closely work with the land use management and planning functions of the Executive Branch in preparing and implementing appropriate modifications to land use policy for more responsible management of water runoff.

AR 036446

11. King County Division of Hydraulics will support the concept of regional holding ponds as a method of Miller Creek preservation and protection, and, further the Division of Hydraulics will analyze the proposed location of holding pond sites as presented in Fig. 7 of Sea-Tac Community's Plan, water quality analysis, for effectiveness and potential storage capacity.

12. King County Department of Public Works will maintain and operate any holding ponds which form part of a county operated regional drainage management system.

13. King County supports the concept of run-off rate control as the common approach to drainage planning and management, including the use of holding facilities and roof-top retention. The Division of Hydraulics will recommend to the Council passage of an appropriate ordinance to implement run-off rate controls of future development and construction.

14. King County will continue to require developers to provide temporary sedimentation collection facilities during construction to insure that sediment-laden water does not enter the natural drainage system.

15. King County and the state of Washington will explore and attempt to design, subject to technical considerations and as far as practical, future road construction projects in the Miller Creek drainage basin which will retard peak flow run-off from county and state roads and highways and properties, including the use of grass ditches, weirs, smaller pipes and culverts (where ditch retention is feasible) and other diversion and diffusion facilities.

16. King County will attempt to design and construct future public works, subject to technical considerations, and regulate private projects in the Miller Creek drainage basin so that such projects will not adversely affect the present character of Miller Creek or increase the quantity of water which flows into Miller Creek.

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17. In the event this agreement is not implemented, plaintiffs may refile said action, and defendants agree not to raise any defenses based on the statute of limitations.

18. Plaintiffs agree to dismiss the action above-captioned as to defendants King County and Washington State Highway Commission with each party to pay its own costs and attorneys' fees.

19. A schedule of planned implementation of this agreement shall be provided to plaintiffs within five days of the date of the agreement by King County and King County shall use its best efforts to follow said schedule and shall advise the plaintiffs concerning any possible changes in said schedule and reasons therefore.

DATED this ____ day of October, 1974.

CHRISTOPHER T. BAYLEY
Prosecuting Attorney

By _____
DIANE E. DRAY, Deputy.

By _____
J. RICHARD QUIRK, Deputy
Attorneys for King County

_____
WILLIAM L. BOLAND, Attorney for
Washington State Highway Commission

_____
NORMAN WINN, Attorney for
Plaintiffs

On behalf of all plaintiffs

_____
WILLIS W. KLUDT

_____
HELEN D. KLUDT

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4. Plaintiffs acknowledge and recognize there are numerous possible methods of maintaining the character and quality of Miller Creek and further recognize that there are other residents and property owners in the Miller Creek basin whose views as to project design and implementation will also be considered equally by King County. Plaintiffs also recognize that the King County Council will have final approval as to the design, location, scope and nature of any project in Miller Creek drainage basin. The Division of Hydraulics will, however, recommend to the King County Council and will use its best efforts to achieve the programs, concepts and agreements contained herein.

5. King County acknowledges the long term and sincere concern of numerous citizens in the Miller Creek basin in maintaining the quality and integrity of the creek and guarantees continued solicitation of citizen input in the final selection of a design solution.

6. King County's Surface Water Utility Board, created by Council Motion 1478, will present to the Council during October 1974 its report calling for the creation of a county-wide surface water utility pursuant to the terms of the County Services Act, RCW 36.94, and requesting initial funding of $1 million. The creation of such an utility requires comprehensive sub-basin planning of detailed surface water management solutions and would permit the levying and collecting of service charges within each sub-basin in which a solution is planned and initiated.

7. Upon completion of the planning and design studies for the Miller Creek basin as provided herein, the surface water utility will prepare a sewerage general plan for the Miller Creek basin. The surface water utility will use its best efforts to

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obtain approval of said plan by the King County Council, the requisite review committee and any other governmental agencies having authority or jurisdiction over the plan area.

8. Upon completion of the Miller Creek sewerage general plan, the surface water utility will proceed as soon as practicable with implementing the necessary financing so that work pursuant to the plan may be initiated. Without limitation of any appropriate method of financing, King County will impose the necessary charges on all property owners within the Miller Creek basin and will consider the levying of rates and charges based on impervious surface areas.

9. The Washington State Highway Department will recommend to the Washington State Highway Commission that the Washington State Highway Department pay any assessment levied by King County based upon the assessments levied upon other property owners in the Miller Creek basin in accordance with the impervious surface area of state highways (SR 509 and SR 518) owned by the Washington State Highway Department in the Miller Creek drainage basin as such drainage projects implemented by King County benefit those highway systems.

10. Upon approval of the sewerage general plan and obtaining the necessary financing, King County will proceed with the construction of appropriate facilities, as set forth in said plan which will:

a. improve the water quality of Miller Creek;

b. prevent surface water from being collected and discharged into Miller Creek in excess of its natural capacity;

c. maintain or improve the present character and appearance of Miller Creek.

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IN THE SUPERIOR COURT OF THE STATE OF WASHINGTON FOR KING COUNTY

WILLIS W. KLUDT, et ux., et al., Plaintiffs	NO. 726259
v.	STIPULATION AND AGREEMENT FOR SETTLEMENT
KING COUNTY and STATE OF WASHINGTON HIGHWAY COMMISSION, Defendants.	

WHEREAS, the parties hereto, Willis W. Kludt and Helen D. Kludt; William C. Hall and Beverly H. Hall, his wife Roy L. McCullough and Janis P. McCullough, his wife; Franklin M. Trunkey and Barbara L. Trunkey, his wife; Alva E. Wiseman and Evelyn M. Wiseman, his wife; and Harry E. Dennis and Jean M. Dennis, his wife; King County; and Washington State Highway Commission, desirous of settling the King County Superior Court action known as Kludt, et ux., et al. v. King County, et al., Cause No. 726259;

WHEREAS, the parties have reached agreement on the general direction and nature of future King County hydraulic planning and construction activity in the Miller Creek drainage basin;

WHEREAS, it is understood by all signatories that breach of the terms of this settlement may result in a refiling of the lawsuit;

WHEREAS, prior to and throughout the pendency of this proceeding, Miller Creek has been the subject of numerous

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Exhibit 4

studies, including the RIBCO Urban Run-off and Basin Drainage Study (1974) and the Sea-Tac Community's Plan (1974);

WHEREAS, King County currently is without sufficient capital construction funds to proceed with a hydraulic project in Miller Creek and therefore is unable to assign a commencement date to any proposed public works activities;

WHEREAS, the parties agree that this agreement is in settlement of the existing litigation and does not constitute an admission of liability by either defendant Washington State Highway Commission or defendant King County;

THEREFORE, in consideration of the promises exchanged herein, the parties agree as follows:

1. King County and the Washington State Highway Commission recognize that serious flooding and drainage problems have existed in Miller Creek drainage basin for a number of years, that such problems will increase in the future as development increases, and King County agrees that corrective programs and drainage facilities are required and should be implemented as promptly as possible.

2. King County Department of Public Works, Division of Hydraulics, pledges the use of $65,000.00 in remaining revenue sharing funds for further planning and design study in the Miller Creek basin. Said funds will be expended upon completion of the RIBCO Urban Run-off and Basin Drainage Study and the Sea-Tac Community's plan. The Division of Hydraulics anticipates that such further planning and design studies will take place during 1975.

3. King County agrees that it has abandoned the total channelization of Miller Creek and agrees that it will not in the future attempt the channelization of Miller Creek except in limited amounts in connection with retention facilities.

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AR 036452

The present highway plan would probably have to be revised to optimize the marsh usage along these lines.

Also, it seems to us that the proposed highway's close proximity to the Southwest corner of the airport should require a recognition of the anticipated access needs in order to development of the future cargo and maintenance facilities identified for that portion of the airport property. Again the extension project should logically await the completion of the airports master plan rather than develop the highway/airport interface in a piecemeal fashion.

Our concern regarding the planned highway design is principally a result of the landfill construction through the marsh area, and the general inadequacy of the rather superficial Supplemental Enviornmental Reassessment and very recently completed Supplemental Drainage Analysis. There are no guarentees or assurances in the Reassessment statement that the present Miller/Walker Creek water quality and quanity problems will not be compounded by the construction. Item G.2 is titled "Water Quality" and does not address the potential water quality degradation from the highway's presence at all. There is also and implication in paragraph G.2 that both the State Department of Fish, Game and Ecology, and the King County Department of Public Works' Flood Control Division concur in the proposed design. The full recommendations of these two agencies, alluded to in the reassessment statement, should be made available for review.

In as much as both Miller Creek and Walker Creek are already over burdened with storm drainage, the obvious increased runoff associated with the additional 10 acres of nearly impervious paving and 29 acres of nearly impervious grassy slopes cannot be tolerated without some positive assurances that this increased storm runoff will be completly controlled. Our doubts are only aggrivated by the erroneous assessment of a portion of the drainage basin in the marsh area (drainage sta 992+50 to 993+00) as a percolation area. This is not a percolation area but drains directly into the Walker Creek basin through an underground culvert.

Further the reassessment statement does not address in any way the impact on the artesian springs at the headwater of Walker Creek which sustain the ecological balance in the marshland with a constant year-around flow of clear water. It is difficult to beleive that the planned 30 feet of fill over these springs will not have a serious and perhaps irrepairable impact on these springs

Although technically the State Highway Department is apparently exempt from completing a full Enviornmental Impact Statement for this particular highway segment because of a "grandfather" provision in the law, we beleive that they should willingly comply with the spirit and intent of the law by accomplishing a complete impact statement

Finally, the contemplated rechannelization of Miller Creek into some 400 feet of culverting is totally unacceptable essentially precluding any subsequent resortation of the creek into a natural streambed as part of our overall program to acheive a continuous pedestrain recreational footpath along the creek.

In short, the State Highway Department has exhibited a lack of sensitivity to the significance of Miller/Walker Creek and the impacted marsh area to the community in their haste to recommit available highway construction funds to the Highway 509 extension project. Consideration must be given to ~~elevating~~ the entire section of the highway from approximately South 160th to South 176th over Miller Creek and the marsh area as a viable alternative to the proposed reculvertin; of Miller Creek and filling a good portion of the marsh just to use excess excavation material from the South end of the project.

It is therefore requested that Policy Advisory Committee initiate action, through the King County Public Works Department, to effectively postpone any construction on the Highway 509 extension project until the completion of both the airport and vicinity master plans, and to require the completion of a full Enviornmental Impact Statement by the State Highway Department. during the interim.

We also suggest that in the interim absence of adopted planning policies for this area the Highway Department include the policy considerations expressed in the reports of the King County Enviornmental Development Commission entitled "Stormwater and Watercources" and "Open Space, Wetlands Element", in assessing environmental impact.

Bruce Mecklenburg D.T.
Bruce Mecklenburg
Chairman, Urban Development
Sub-Committee

Chuck Schuh D.T.
Chuck Schuh
Co-Chairman, Urban Development
Sub-committee

cc to
Paul Barden
J.P. Clark, Federal Highway Administration
John Kriete, Washington State Highway Department
Bill Frederick, King County Council
Jean De Spain, King County Department of Public Works
Bill Banks, Highline Community Council
Tom Ryan, King County Department, Community Division
Ed Sand, King County Division, Land Use Management
Mike Darland, Puget Sound Governmental Conference
John Biggs, Washington State Department of Ecology

Appendix B

BIBLIOGRAPHY OF PHASE I REPORTS
Sea-Tac Communities Plan

1. King County Task Forces. Community Involvement Program (I. Community Perceived Image: II. Community Expressed Concerns), Seattle, Washington, October 1973.

2. King County Land Use Management Division. Sixth Month Report· Environmental Assessment, Seattle, Washington, October 1973.

3. King County Land Use Management Division. Map Supplement to Sixth-Month Report, Seattle, Washington, October 1973.

4. Robin M. Towne & Asscciates, Inc., MAN-Acoustics & Noise, Inc. Interim Report, Noise Study, Seattle, Washington, October 1973.

5. ESL Incorporated. Sea-Tac Air Quality - Preliminary, Sunnyvale, California, October 12, 1973.

6. ESL Incorporated. Addendum, Sea-Tac Air Quality - Preliminary, Sunnyvale, California, October 26, 1973.

7. Stevens, Thompson & Runyan, Inc. Preliminary Report, Water Quality and Drainage Study, Seattle, Washington, October 1973.

8. Peat, Marwick, Mitchell & Co., et al. Aviation Demand Forecasts, San Francisco, California, September 1973 (revised November 6, 1973).

9. Peat, Marwick, Mitchell & Co. Demand Capacity Analysis, San Francisco, California, October 1973.

10. Batelle Northwest, Community Attitudes Survey, Seattle, Washington, October, 1973.

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sea-tac/communities plan memo
a joint effort of the port of seattle and king county

November 30, 1973

to: Don Shay, Chairman, Policy Advisory Committee
from: Bruce Mecklenburg, Chairman, Urban Development Sub-committee
SUBJECT: Relationship of SR 509 Extension to Sea-Tac Communities Plan.

Dear Mr. Shay:

In response to the State Highway Department's recently announced intention to shortly begin construction on a highway 509 extension from South 160th to South 188th, the Citizen Involvement Program's Urban Development Sub-committee, the Water Quality & Drainage Task Force, is compelled to document its feeling on this matter and to prevail on the Policy Advisory Committee to initiate appropriate action. Our concerns are twofold: first, we question the timeliness of the project in light of the current Sea-Tac Communities Plan Study; and, second, the unimaginative apparently mimium-cost approac leaves a great deal to be desired in its lack of appreciation of the potentially adverse environmental impact.

Since this planned Highway 509 extension is contained entirely within the Miller/Walker Creek drainage basin, and because of its close proximity to the airport itself, it seems inconceivable to us that a project of this magnitude with its associated impact on land-use patterns could be conducted prior to the completion of the airport and vicinity master plans, and the current RIBCO urban drainage study on Miller Creek. At this point in the plan's development it is impossible to evaluate the proposed highway project's compatibility with land-use recommendations to be developed during the next 12 months of the project.

At the end of Phase I, technical consultant, Stevens, Thompson & Runyan, Inc., has concluded that the Miller/Walker Creek drainage system is presently inadequate to handle the runoff. The wetland East of Des Moines Way between South 168th and South 176th is a critical element in the streams' drainage systmen and even a minor alteration to the wetland's characterstics, let alone the rather substantial changes to be imposed by the highway extension, should definitely be delayed long enough to be tested against the consultants final recommendation for this unique marsh area. There is a good possibility that this entire wetland will be developed into an educational nature-trail park in keeping with citizen desire to preserve the marsh area in its natural state as iterated in the " Community Expressed Concerns" Phase I element report.

Exhibit 3

AR 036456

SUMMARY

Phase I of the Project has now concluded. Information and data has been processed in a form enabling identification of both problems and opportunities associated with accomplishment of the principal study goal--attainment of maximum compatibility between the Airport and the surrounding communities.

Major findings under Phase I include:

- The Airport site has adequate capability to accommodate foreseeable air traffic demand. No major expansion of the site is required.
- Noise exposure has peaked and, although expected to decrease with time, will remain a significant environmental problem in certain areas.
- Overall size of the Study Area population, some 137,000 in 1970, has generally stabilized; only minor increases are expected during the next 20 years.
- Employment in the area, especially at the Airport or as related to Airport activities, is increasing.
- No insurmountable problems relative to air and water quality have been identified to date.

Appendix A

STUDY TEAM
Sea-Tac Communities Plan

Study Team Member	Project Responsibility
King County	Vicinity Plan Community Involvement Program
Robin M. Towne & Associates, Inc./MAN-Acoustics and Noise, Inc.	Noise Exposure
ESL, Inc.	Air Quality
Stevens, Thompson & Runyan, Inc.	Water Quality/Drainage Solid Waste
Battelle Northwest	Community Attitudes
Port of Seattle	Airport Master Plan
Peat, Marwick, Mitchell & Co.	Project Coordination

AR 036458

In general, from the standpoint of technical requirements, the existing Airport site was found to have adequate capability to accommodate forecast air traffic demand through the 20-year planning period. No additional air carrier runways will be required, nor will the terminal complex, as designed, need any substantial modifications. Moreover, areas now designated for air cargo purposes appear to be sufficient in size and well located on the Airport.

PROJECT COORDINATION

One of the principal tasks accomplished as part of the Project Coordination element during Phase I of the Project involved refinement and detailing of the original work program that was included in the application for FAA fund assistance. Other coordination devices developed during Phase I include:

- Task Flow Diagram depicting task interrelationships.
- Task Schedule depicting estimated start and finish dates for each of the tasks.
- Consultant contracts with a common format and schedule for task completion.
- Study Team Coordination Procedures including Intra-Project Communication, Performance Accountability, and a Project Reference File and Bibliography.

In addition, monthly meetings of the Study Team have been held to ensure coordination of work effort and adherence to schedules in development of the Vicinity Plan, Environmental Studies, and Airport Master Plan.

The progress accomplished during the previous month is presented verbally at the meetings by each Study Team member; the latter also furnish standardized written monthly reports to the Project Director.

Step two of the Aesthetics and Visual Survey is termed the Memory Sketch Inventory. This process has involved citizen definition of important community features. Those elements which result in an image have been recalled from memory, indicated on a map, and impressions of them are described by citizen participants. Analysis by both citizens and staff, in conjunction with the field inventory has enabled evaluation of the positive and negative forces that are at work in forming what might be termed the "Community Image" throughout the Study Area.

Community Attitudes

A community attitudes survey has been completed during Phase I of the Project. Social data derived as a result of this survey has identified community concerns for the Study Area as a whole. Preliminary findings of the survey indicate as expected that residents of the Study Area as a whole have a somewhat greater concern with noise than was found to be the case in another similar urban area (Shoreline). Also identified were many qualities of the Sea-Tac/Communities that the respondents considered to be desirable. A key remaining step in analyzing the data will be to see how attitude survey results correspond to levels and locations of noise exposures within subareas.

AIRPORT MASTER PLAN

The Airport Master Plan component of the Project involves development of a comprehensive plan for Sea-Tac International Airport designed to provide guidance as to how the facility can best satisfy aviation demand and also be compatible with environmental concerns and community development patterns. The Airport Plan must also relate to nearby airports and other

modes of transportation. Principal tasks accomplished to date include preparation of updated air traffic forecasts for Sea-Tac and a preliminary determination of available capacity to accommodate these forecast levels.

Air Traffic Forecasts

Air traffic forecasts represent a principal input to the process of detailing and screening Airport/Vicinity alternatives. In particular, such forecasts serve as the basis for determining the future relationship of the Airport to and with the surrounding communities.

Exhibit 7 graphically depicts forecasts of air traffic activity at the Airport that have been prepared as part of the Sea-Tac/Communities Plan. As shown on the Exhibit, total passengers at Sea-Tac are expected to more than triple between 1972 and 1993, increasing from 1972 level of 4,788,962 to some 15,100,000 total passengers by 1993. On the other hand, total annual operations by air carrier aircraft are expected to moderately increase from a level of 113,631 in 1972, to some 167,000 operations by 1993. Total annual aircraft operations at the Airport (air carrier, commuter airlines, general aviation, and military) are forecast to increase from the 1972 level of 152,344 to some 241,000 by 1993. The forecasts anticipate that more than twice as many persons (from 48 to 106) will board a given flight at Sea-Tac in 1993 than in the case at present.

Demand Capacity Analysis

An initial evaluation of the existing Airport facility in terms of its capacity to accommodate foreseeable demand has been accomplished. Based on the evaluation, a preliminary set of physical facility requirements has been developed.

Exhibit 6 shows the present and forecast exposure pattern of one of the pollutants analyzed, hydrocarbons, for the years 1973, 1983, and 1993. The "isopleths" on this exhibit represent areas where present federal standards may be exceed on an average day during peak periods of activity.

Water Quality/Drainage

A preliminary analysis covering water quality (chemical and biological) and drainage conditions was conducted from March to September 1973 as part of the Project in the Miller Creek and Des Moines Creek basins. Eight sampling stations were positioned on each creek. Exhibit 6 shows the location of the creeks and the sampling stations. Data collected at these locations indicate some major problems in each area of investigation.

Water Chemistry. Washington State Department of Ecology criteria for the two creeks which are currently violated include temperature, dissolved oxygen, and coliform. These conditions appear to be caused by human activities except for the shallow, exposed-to-sunlight portions of Miller Creek as it runs through the North Clear Zone at Sea-Tac International Airport. Chemically, there is little to preclude either of the streams from some recreational uses; that is, they are free of algae, odors, and disease according to preliminary measurements.

Biological Sampling. Organisms more tolerant to pollution are found in both creeks. The composite data indicates that the streams exhibit degraded conditions throughout their lengths· such conditions are apparently unrelated to any identified pollutant source.

Hydrology Studies. A preliminary calculation of storm runoff indicates that the Miller Creek drainage system is inadequate to handle even a relatively-small storm at the present time.

Solid Waste

The Solid Waste Study, although environmental in nature, is related more to the airport proper. This investigation has completed a description of existing practices in handling solid wastes at the airport and determined that they are largely more than adequate with respect to cleanliness. Data also has been collected for determining waste generation that can be correlated to a per passenger basis. Analysis in this regard is continuing. A report completing the Solid Waste Study will be finished during the second six-month phase of the overall Project.

Natural Determinants

The Sixth-Month Report: Environmental Assessment* includes information and analyses dealing with natural determinants of the Study Area including geology, soil, topography and slope, natural hazards, and hydrology. Natural constraints and conditions for new development and possible redevelopment within the Sea-Tac/Communities are identified in this report.

Aesthetic and Visual Characteristics

The process of accounting for aesthetic and visual characteristics (or community image) of the Study Area involves two steps. First, a field inventory by a trained observer serves as a preliminary characterization of the image elements. Now completed, the results of this field inventory are also presented in the Sixth-Month Report: Environmental Assessment.

* Including map supplements to the report.

constantly varying weather conditions) may be taken into account. The noise consultants engaged for the Project are in the process of making some 4,200 measurements of aircraft flyovers at 66 locations in the Sea-Tac/Communities Area.

Preliminary noise exposure forecast (NEF) values have been calculated by the consultants for study years 1973, 1978, 1983, and 1993 using newly derived forecast and operational data for Sea-Tac. Verification of the accuracy of these preliminary NEF values will be made using the ANE technique and the ongoing measurement program during the next phase of the overall Project. However, these preliminary maps do provide the clearest picture available to date of Sea-Tac's pattern of noise and in particular, how this pattern will generally be in the future.

NEF contours for each of the four study years are shown on Exhibits 2, 3, 4, and 5. The contours depicted are for constant NEF values of 35, 40, and 45. The level of noise exposure is directly related to the NEF value. The larger the NEF value, the greater the degree of noise exposure.

In general, the area covered by any one contour is expected to decrease with time. Thus, in 1983 the NEF 45 contour is some 2¼ miles shorter than the comparable 1973 length, and in 1993, some 3 miles shorter. The reason for this expected shrinkage in contour size is that the forecast increase in the absolute number of air carrier aircraft operations at Sea-Tac International Airport is more than offset by:

(1) Replacement of existing noisier aircraft in the fleet mix by quieter aircraft such as the B-747, DC-10 and L-1011, and

(2) Use of two noise abatement measures (engine nacelle retrofitting with sound-absorbing material, and two-segment approach).

The full significance of indicated noise reductions on land use and Airport operations will be assessed during Phase II of the Study.

Air Quality

During June and September 1973, air quality measurements were taken at two sites in close proximity to the Study Airport. At each site, an air monitoring van measured the concentration of such air pollutants as:

a. Carbon Monoxide (CO)

b. Hydrocarbons (HC)

c. Nitrogen Oxide (NO_x)

d. Particulate

e. Oxidants (Ox)

Existing and forecast levels of these pollutants in the Sea-Tac area have been calculated on a preliminary basis and compared to Federal standards for such emissions. In general, it was found that concentration of the measured pollutants is limited to the immediate vicinity of the Airport and that Federal health-oriented standards for these pollutants are for the most part not exceeded now nor are they expected to be exceeded during the forecast period (1973-1993).

Applicable standards are currently exceeded for one air pollutant - hydrocarbons; however, present emission levels are projected to decrease. Hydrocarbons alone do not have a direct adverse effect on health, although under proper conditions they contribute to formation of smog. The level of pollutants which are formed as a result of the presence of hydrocarbons do not now exceed Federal standards and will probably not exceed Federal standards in the future within the study area. It should be mentioned, however, that hydrocarbons are often associated with offensive odors.

Area employment, on the other hand, is increasing steadily and by 1993 is projected to reach 56,000. This compares to 32,000 in 1970.

The land use pattern that has evolved in the Sea-Tac/Communities Area reflects the full range of uses found in a typical urban area. Residential land use predominates, with single-family housing accounting for about two-thirds of all existing uses. Multi-family housing is found primarily along highway arterials and in the Burien locale. The largest non-residential land use in the area is the Sea-Tac Airport complex.

The County currently has 18 park sites within the study area. Eleven of these sites are considered developed, including Seahurst where additional work began this year. Of the remaining seven, three are scheduled for initial development in 1974.

Surface transportation in the area follows a dominate north-south pattern typical of this part of King County. Interstate Highway #5 is a major element, along with Pacific Highway South, 1st Avenue South, SR509, and Ambaum Boulevard. State Road 518 provides a direct east-west connection from Burien and also ties the Airport complex directly to the freeway system.

In addition, the Study Area is served with frequent bus schedules by the Metro Transit System (routed on a north-south axis), and it is probable that further improvements in this service will be made in the near future.

ENVIRONMENTAL STUDIES

The several environmental studies being undertaken as part of the Project involve the nature and extent of impact on the surrounding natural and community environment that is or may be attributable to activities generated by operations at Sea-Tac International Airport. Such studies include detailed investigations and analysis of:

- o noise exposure
- o air quality
- o water quality/drainage
- o solid waste
- o natural determinants
- o aesthetic and visual characteristics
- o community attitudes

Noise Exposure

Basic objective of the Airport-oriented noise survey is to determine the degree and extent of noise presently experienced by communities surrounding Sea-Tac International Airport. Survey results represent a vital tool in the planning of a land use pattern that is as compatible as possible with the prevailing and forecast noise environment.

The two principal methodologies employed during the Project to describe noise conditions are Noise Exposure Forecast (NEF) and Actual Noise Exposure (ANE). The NEF process produces noise contours mathematically, taking into account standard data relative to aircraft noise characteristics, frequency of aircraft operations, the time period (day or night) during which operations occur, etc. Computation of NEF contours requires no specific measurements in the Study Area. The ANE methodology does utilize such measurements so that factors unique to the Sea-Tac operation (e.g., topographic features and

for both Urban Development and Air Transportation. While the EDC will ultimately review and recommend specific plan and policy matters to the King County Council, the citizen subcommittees are directly involved in the formulation of policy and plan alternatives through continued liaison with the technical Study Team.

The Urban Development and Air Transportation subcommittees have met on a regular basis since June. Each has defined its purpose and objectives, organized special study task forces, reviewed technical presentations and studies, coordinated citizen efforts, developed programs of benefit to the broader community and taken action on matters likely to affect outcome of the Project. The Subcommittee's action program has involved a number of community meetings and study sessions. Task force reports have been prepared for use in subsequent analysis phases of the total study.

A staffed community office located in Burien, in operation since March 1973, serves as a headquarters and meeting place for many activities of the Community Involvement Program as well as a local information office for the Project. A newsletter is distributed via this office to over nine hundred people monthly, and fact sheets are prepared periodically.

During the past summer, three videotape (TV) programs were developed on various aspects of the Project. These tapes have been incorporated into a series of community workshops being conducted this fall entitled "Your Two Cents Worth". Results from citizen participation in the workshops will be utilized by the Study Team and the EDC in all remaining phases of the project.

Other activities of the two subcommittees have included working with citizens in the development of a Memory Sketch Inventory (described in this Report under Environmentals Studies - Aesthetic and Visual Characteristics), and documenting the concerns of various citizens relative to the Project in a report entitled "Community Expressed Concerns".

VICINITY PLAN

The Sea-Tac Vicinity Plan can be described as a determination of the best combination of land use, development controls and policies, and Airport Master Plan alternatives possible in view of prevailing social, economic, and environmental conditions.

The first six-month phase of the Vicinity Plan has consisted of gathering the basic information needed to develop such a community plan. This task has been completed and some of the more significant aspects can now be highlighted.

The Study Area generally extends from the Seattle city limits on the north to South 288th Street on the south, and from Puget Sound on the west to Interstate 5 on the east. Considerable growth was experienced in the northern portion of this area between 1940 and 1950, but population increase has tapered off since that time. However, significant growth has taken place south of Sea-Tac International Airport in recent years. Total popolation of the Study Area in 1970 was 137,000. This total is projected to remain relatively stable in the next few years and then gradually increase to over 160,000 by 1993.

School enrollment grew rapidly in the '50's and '60's to a peak level (in the case of Highline School District) of 31,000 students in 1967. Since that point, especially between 1970 and 1972, a decline has occurred.

Advisory Committee (TAC) has been in operation to assist the Study Team through liaison with appropriate agencies. A Policy Advisory Committee (PAC) provides guidance and joint administrative liaison with the sponsoring agencies. Principal components of the work program include the following:

- o Community Involvement Program
- o Vicinity Plan
- o Environmental Studies
- o Airport Master Plan
- o Project Coordination

PROJECT SCHEDULE

As indicated on Exhibit 1, the Project was initiated in March of 1973 and is expected to be an eighteen-month effort culminating in adoption of a fully coordinated plan for the Airport and Vicinity.

Phase I of the Project primarily consists of necessary data collection and analysis. Products of this phase include initial "six-month" reports on existing and forecast conditions relative to (1) the Airport Vicinity, (2) key environmental aspects, and (3) the Airport proper. This particular document highlights these various preliminary reports.

Each of the individual six-month reports should be consulted for more complete information regarding methodologies, assumptions, and additional findings. (See bibliography in Appendix B.)

PROGRESS TO DATE

OVERALL PROJECT

Summary. After 6 months of effort, the Project is estimated to be approximately 40% complete. Some 16,872 man hours have already been expended by the Study Team (Port/County/Consultants) on the Project. Project timing to date conforms very closely to the schedule originally outlined.

Interim Land Acquisition Program. In September of this year, the Port of Seattle announced intent to proceed with a grant application to the FAA for additional land acquisition adjacent to Sea-Tac International Airport. This step is viewed by the Port as an interim measure to get administrative processes under way for maximum acquisition possible under existing federal authority. Areas involved are called "approach protection areas" or "extended clear zones". Their boundaries are based on existing FAA criteria and not on environmental impact, although it is known that the designated areas have major noise exposure problems. Over 600 homes are included in this interim program, and the estimated cost approximates 16 million dollars.

COMMUNITY INVOLVEMENT PROGRAM

Prime purpose of the Community Involvement Program is to provide a process through which the community has a direct and continuing role in the development of the Sea-Tac/Communities Plan. The King County Environmental Development Commission (EDC) functions as sponsor of the Community Involvement Program. The EDC's Land Use Committee has established a partnership with the community through formation of citizen subcommittees

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SEA-TAC/COMMUNITIES PLAN

INTRODUCTION

PROJECT BACKGROUND AND DESCRIPTION

Increased levels of air traffic activity at Sea-Tac International Airport, coupled with increased residential development in nearby communities, has made the Airport's presence incompatible with certain existing land uses in these communities. An evident need to solve this problem of inter-relationships between the Airport and its neighbors prompted initiation of the Sea-Tac International Airport and Vicinity Master Plan Project (Sea-Tac/Communities Plan).

The Project involves a cooperative undertaking by the Port of Seattle and King County to concurrently develop an Airport Vicinity Plan and a Master Plan for Sea-Tac International Airport. Principal goal of the joint planning effort is to attain maximum compatibility between the Airport and the surrounding communities.

Total estimated cost for the Project is $641,968. Two-thirds of this amount is financed through an Airport Master Planning Grant from the Federal Aviation Administration (FAA). The remaining one-third is split evenly between the Project's joint sponsors, the Port of Seattle, and King County. Almost all of the local share consists of staff time committed to the Project.

A specially selected Study Team, composed of several consultants in addition to Port of Seattle and King County personnel (See Appendix A), has been formed to accomplish technical aspects of the Project. A Technical

Table of Exhibits

Exhibit 1	Stipulation and Order of Dismissal as to Defendant Port of Seattle, Kludt et ux., et al. v. King County and State of Washington Highway Commission, No. 762259 King County Superior Court, Oct. 12, 1972
Exhibit 2	Sea-Tac Communities Plan: Six-Month Summary Report November 1973
Exhibit 3	Memorandum to the Chairman of the Sea-Tac Community Plan's Policy Advisory Committee, Urban Development Sub-Committee member Bruce Mecklenburg, November 30, 1973
Exhibit 4	Stipulation and Agreement for Settlement, King County Superior Court, Case No. 726259, October 1974
Exhibit 5	A MOTION relating to comprehensive surface water planning and management, water shed protection, and providing for the development of a Surface Water Utility in King County. November 1974

THE SEA-TAC/COMMUNITIES PLAN:

SIX-MONTHS SUMMARY REPORT

November, 1973

The preparation of this report was financed in part through an Airport Master Planning Grant from the Federal Aviation Administration under the provisions of Section 13 of the Airport and Airway Development Act of 1970.

Sponsors: Port of Seattle
King County, Washington

Exhibit 2

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The Port also anticipates the use of suitable fill material from other construction projects in the region as well as possible sources outside the region/state or country. The Final EIS and this Supplemental EIS analyze the impact of virtually all likely routes that converge on the Airport construction site. Transport of material in the immediate vicinity of those other regional construction projects would be assessed in the environmental approval documents for those projects.

Haul Conveyance Mechanism: Similar to the on-site source conveyance, trucks are expected to be the likely mode of transport from off-site sources. Other potential ways of providing material to the construction site involve barges to the Duwamish area from sites #15 and the King County Parks site (#15A), and/or rail supplied material from site #9 to either the Duwamish or Kent Valley areas. Material barged or rail transported to the Duwamish could be trucked to the Airport via SR 509. In 1996, the Port of Seattle completed the first phase of an Alternative Delivery Method Study that identified several barge sites in the Duwamish where fill could be transferred from barge to truck. The feasible sites include several existing private operations (including Lone Star, Cadman, Ash Grove, etc.), and Port properties at: Terminal 105, Terminal 115, and Terminal 106 West-Container Freight Station (W-CFS). Capacity exists, as the private operators currently operate subject to appropriate permits for the transfer of such fill material, and these facilities could be used in accordance with their permit requirements. Port owned land was also considered. Terminal 2 and Terminal 18 could also be used, but would require haul traffic to cross congested intersections at Southwest Spokane Street. Port owned properties at Terminal 105 and Terminal 115, and the private operations have existing capacity to enable barge traffic associated with the Sea-Tac Airport fill requirements and are located south of Southwest Spokane Street, along West Marginal Way (a four lane arterial that is in good condition with light to moderate traffic volumes). SR 509, south of West Marginal Way, currently operates at LOS E and is anticipated to remain at LOS E through the year 2010. **Exhibit 5-4-3** shows the locations of these sites.

Material transported by rail to the Kent Valley area could be trucked to the site, but due to roadway congestion in that area, trucking may be limited to evening and night periods. Required environmental review would be conducted and compliance with permitting requirements would occur prior to development of a new rail station or rail spur for this rail alternative.

An alternative to the import of off-site material by trucks has been suggested. This alternative could use a conveyor belt system to transport material barged or transported by rail to a site in the general vicinity of the Airport. Based on one proponents suggestion, several conveyance routes were reviewed. These include: conveyance south from the Duwamish industrial area along SR 509, conveyance from the Kent valley west along Orilla Road, and conveyance from Puget Sound, along the Des Moines Creek. The Port's 1996 Alternative Material Delivery Study performed a more detailed consideration of the alternatives. That study found that only the Des Moines Creek and SR 509 routes to be technically viable alternatives to conventional truck haul. The SR 509 route would result in significant right-of-way difficulties.

The Des Moines Creek route is in the initial stages of development by a private proponent. It is anticipated to require an in-water of Puget Sound off-load and docking station near the Des Moines Beach Park, and installation of an above-ground conveyor belt system approximately two miles along the Des Moines Creek Park via a Midway Sewer District easement to the construction site. The advantages of this proposal is that it has been used effectively on other large scale projects and it could effectively eliminate all off-site fill material truck transport. Due to the size and quality of the material sites that could barge material, this alternative could also eliminate the need for use of the on-site material sources. The conveyor belt proponent has obtained an agreement with the Sewer District for the use of the easement, but

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has not obtained other permits or environmental review which could be insurmountable. Thus, the Final EIS (and this Supplemental EIS) assumes transport of material by truck (and a truck/barge combination). Required environmental review would be conducted and compliance with applicable permitting requirements would occur prior to development of an off-site conveyor system and any associated facilities.

Haul Routes and Service Levels: The Final EIS examined the haul routes that were believed to be the routes most likely to be used. However, since completion of the Final EIS, additional routes have been identified that could be used by construction traffic. Routes that were not examined in the Final EIS, but assessed in this additional analysis are:

- I-5 from the North or South to South 188th Street, to Starling Drive
- I-5 from the South to South 200th Street to International Blvd. to South 188th Street to Starling Drive
- I-5 from the South to Kent-Des Moines Road (SR 516) to International Blvd./SR99 to South 188th Street to Starling Drive
- South 154th/156th Street, Southcenter Blvd., SW Grady Way
- State Route 509 to South 176th Street temporary construction traffic access
- State Route 518 to 20th Avenue South temporary construction traffic access
- State Route 518 to International Blvd. to South 192nd Street
- I-5 from the North or South to South 188th Street, to 28th Street South to South 192nd Street
- I-5 from the North or South to South 200th Street, to 28th Street South to South 192nd Street
- I-5 from the South to Kent-Des Moines Road (SR 516) to International Blvd./SR99 to South 192nd Street

All haul routes considered by this Supplemental EIS are shown in **Exhibit 5-4-2.**

Contractor use of off-site material sites east of I-5 would require the use of I-5 or I-405 to reach SR 518 and SR 509 to access the Airport construction site. Use of material sources located on Maury Island, Port Gamble, or the Dupont area are expected to be barged into the Duwamish and trucked to the Airport construction site. Level of service analysis throughout the day for year 2000 volumes at key locations with conditions expected to cause congestion impacts due to increased volumes of heavy vehicles were performed. Year 2000 traffic was chosen as a worst case condition, even though most construction haul activities are to occur before then, as well as up through 2002. Year 2000 is anticipated to represent the peak period of haul.

As is shown in **Exhibit 5-4-2**, all haul routes (with the exception of SR 99/International Blvd) converge on either I-5, SR 509 or SR 518 in the immediate Airport vicinity. Therefore, for the purpose of this evaluation, I-5, SR 509 and SR 518 were evaluated using a 109 one-way peak hour truck trips and the remaining roadways were examined using the lower 66 one-way truck trips. The higher 109 trips reflect peak construction conditions on these converge points, while the lower 66 represents the peak construction conditions on these other roadways, either due to congestion or distance/location relative to the construction site.

Results of the level of service analysis are summarized in **Table 5-4-4.** Analysis conducted by the Final EIS for both minimum and maximum off-site truck traffic found that varying impacts to the regional transportation network were predicted where background levels of

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(E) AIR QUALITY

Construction will have a short-term impact on local air quality. Air pollution levels during the construction period would be a consequence of one or more of the following activities: Vehicular activity in support of construction; wind erosion of soils; the movement of construction vehicles along haul routes; excavation; and cement and aggregate handling. Air pollution impacts would be most pronounced at the individual construction sites and along the construction haul routes.

The air quality impacts associated with the hauling of construction fill material was evaluated through a separate pollutant dispersion modeling analysis. The analysis presented in the Final EIS is repeated here, and is based on 109 peak hour truck trips, instead of the longer construction period trips of 66 trips per hour. CAL3QHC, a USEPA approved model used to predict pollutant concentrations from motor vehicles, was used to examine construction related pollutant Carbon Monoxide concentrations. Vehicle emission rates for input into the CAL3QHC model were derived from two other USEPA air quality models, MOBILE5A for carbon monoxide emissions and PART5 for particulate matter.

Particulate matter (PM10) is usually the pollutant of greatest concern related to construction activity. To quantify the effects of dispersing the pollutants within the surrounding environs, receptors were modeled at three meters (12 feet) from the edge of the roadways along each of the proposed haul routes.

It should be noted that the methodology used in this analysis relies on the use of modeling default values and input assumptions, as determined in consultation with the Department of Ecology and USEPA. Because of lack of data concerning the Puget Sound Region, this analysis used the more arid (dry) environment associated with Spokane. These assumptions tend to overstate PM10 concentrations associated with construction activity at Sea-Tac Airport.

TABLE 5-4-7

CONSTRUCTION AIR POLLUTION CONCENTRATIONS

Haul Route	CO Concentrations (ppm) 1-Hour Do-Nothing	1-Hour With Project	8-Hour Do-Nothing	8-Hour With Project
SR 509 from SR 518 to S. 160th Street	1.4	1.5	1.0	1.1
South 160th Street from SR 509 to Des Moines Memorial Drive	2.1	2.5	1.5	1.7
Des Moines Memorial Dr. from S. 160th Street to 8th Ave. South	1.8	2.1	1.3	1.5
Des Moines Memorial Dr. from 8th Ave. South to 148th Street	1.5	2.0	1.1	1.4
Des Moines Memorial Dr. from S. 200th Street to S. 188th Street	3.2	3.5	2.2	2.4
South 200th St. from Des Moines Memorial to 26th Ave. South	3.5	3.7	2.5	2.6
Unpaved on-Airport Road south airfield	-	0.1	-	0.1
Ambient Air Quality Standard	35	35		9

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Haul Route	PM10 Concentrations (ug/m3) 24-Hour Do-Nothing	24-Hour With Project	Annual Do-Nothing	Annual With Project
SR 509 from SR 518 to S. 160th Street	156	253	31	51
South 160th Street from SR 509 to Des Moines Memorial Drive	105	352	21	70
Des Moines Memorial Dr. from S. 160th Street to 8th Ave. South	84	311	17	62
Des Moines Memorial Dr. from 8th Ave. South to 148th Street	67	318	13	64
Des Moines Memorial Dr. from S. 200th Street to S. 188th Street	154	276	31	55
South 200th St. from Des Moines Memorial to 26th Ave. South	164	309	33	62
Unpaved on-Airport Road south airfield	-	462	-	93
Ambient Air Quality Standard	150	150	50	50

Source: Final EIS, Chapter IV, Section 23 Tables IV.23-6 and IV.23-7.

(1) Carbon Monoxide Concentrations

The use of diesel haul trucks would not be expected to produce substantial carbon monoxide (CO) emissions. As shown in **Table 5-4-7**, the maximum 1-hour and 8-hour CO concentrations along each of the haul routes would be expected to be well below the CO ambient air quality standards. The "With Project" concentrations would all be well below the Ambient Air Quality Standards.

(2) PM10 Concentrations

The high volume of construction truck activity would be expected to generate considerable fugitive dust emissions, or particulate matter especially during dry conditions. Without mitigation or the use of control measures, the results would be particulate emissions above the ambient air quality standards along each of the proposed construction haul routes. **Table 5-4-7** presents the maximum 24-hour and annual PM10 (particulate matter of 10 microns ore smaller) concentrations along each construction route based on arid assumptions.

Based on arid assumptions and the use of no controls, the PM10 concentrations could exceed the 24-hour and annual standards along all routes with the 109 hourly truck trips. If truck trips were reduce by 30 percent (to 66 truck trips). At the reduced trip level (longer construction period), the annual AAQS would not be expected to be exceeded, but the 24-hour standard could be exceeded during arid conditions along all haul routes.

(3) Mitigation Measures

Control measures for paved roads focus on either preventing material from being deposited on the roads (preventive controls), or removal from the travel lanes of any material that has been deposited (mitigative controls). Preventive measures include policies requiring "wetting" of material being hauled, cleaning vehicles before they leave a construction site, using 'bump strips' or grates to 'shake' dust from vehicles, or by paving the construction site access roads nearest to the paved roads. **Table 5-4-8** lists construction BMP's that would be used to reduce PM_{10} emissions.

For example, vacuum sweeping along each route would reduce particulate matter by almost 40 percent. Flushing the roadways with water followed by sweeping could reduce particulates by over 90 percent if performed frequently. However, the Port's Temporary Erosion Control Plan does not allow for flushing of streets because of potential water quality impacts. Control

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REVISIONS TO MODELED SOURCES

SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT
SEATTLE-TACOMA INTERNATIONAL AIRPORT
AIR QUALITY ANALYSIS

A comprehensive review of the air quality input elements and modeling methodology used to prepare the Draft Supplemental EIS air quality analysis (and Revised Draft Conformity Analysis) has been completed. This review was initiated in response to comments provided by the EPA and their consultant SAIC, the Department of Ecology, the Puget Sound Air Pollution Control Agency, and the general public. Additionally, in response to specific comments related to data integrity, over 17,000 data elements used in the Emissions Dispersion Modeling System (EDMS) analysis were re-examined as a final step to ensure the quality of the data. This attachment describes the effect on air emissions resulting from the review and correction of various data elements for the Draft Supplemental EIS air quality analysis.

The EPA's consultant SAIC identified three key areas of concern with the Draft Supplemental EIS air quality conformity analysis: (1) the temporals and peak hour takeoffs assumptions used in determining annual operations; (2) the EDMS motor vehicle emission factors used, and (3) the estimate for construction emissions. As a result of the correction of the items identified by EPA and others identified through the quality assurance review, several other data elements were corrected. This review was conducted for both the Do-Nothing and "With Project" conditions for each forecast year.

Exhibit 1 identifies the revised data sources and the overall effect on emissions. A detailed technical memorandum that identifies the specific changes and effects on emissions and concentrations has been included in the FAA's Administrative Record and is available for public review during normal business hours at the FAA Offices in Renton Washington.

As the revised analysis shows, the resulting comparison of the Do-Nothing and "With Project" confirms that operational emissions will be lower in most cases for the "With Project" alternative. Combined operational and construction emissions from the project for pollutants subject to the conformity requirement will be less than the de-minimis levels established by the EPA in the general conformity regulation. Thus, there was no significant change to the analysis presented in the Draft Supplemental EIS Appendix B.

1. REVISIONS TO EMISSIONS INVENTORY

In general, correcting for the comments by the EPA's consultant and others resulted in an increase in emissions for both the Do-Nothing and "With Project" conditions over the emissions levels presented in the Draft Supplemental EIS. The following summarizes the corrections made and the effect on emissions.

1.1 ***Temporals and Peak Hour Takeoffs (PHT)***: The EDMS model used to develop the emissions inventory requires the use of temporals to describe how the peak hour activity relates to average daily traffic, monthly traffic, and annual levels. The temporals used in the Draft

Supplemental EIS analysis reflected actual historic conditions. However, as a result, the annual forecast level of activity was not properly represented (it was under represented by 8-12%) in future years for both the Do-Nothing and "With Project" alternatives.

The hourly aircraft departure temporals have been increased to reflect the forecast level of aircraft operations. In addition, SAIC noted that the peak hour takeoff (PHT) levels were incorrectly input by a fraction for several aircraft. Accordingly, the PHT's have been revised to add to 64, the level of peak hour activity considered for the Draft Supplemental EIS analysis. For modeling purposes, the annual operations either equal or exceed the forecast level of aircraft operations based on the corrections to the temporals and PHT.

Combined, the corrections to temporals and PHT result in an increase in aircraft related emissions for both the Do-Nothing and "With Project" conditions. Because the Draft Supplemental EIS 2005 and 2010 "With Project" condition already considered the effect of a higher level of peak month average day activity for aircraft in comparison to the Do-Nothing, the increase in emissions is less "With Project" than for the Do-Nothing.

1.2 ***EDMS Use of MOBILE5A Emission Factors***: The EPA's consultant noted that the Draft Supplemental EIS analysis for the year 2005 reflected conflicting surface vehicle emission factors between the Do-Nothing and "With Project" analysis. The EDMS Do-Nothing analysis reflected use of the year 2000 factors whereas the "With Project" reflected the year 2010 factors. As a result the Do-Nothing emissions were overstated relative to the "With Project".

In response, the year 2000 MOBILE5A surface vehicle emission rates have been used in the Final Supplemental EIS for both the 2005 Do-Nothing and "With Project" conditions. This change effects both roadway and parking lot related emissions, and increases the 2005 "With Project" emissions by 2,713 tons CO, 418 tons NOx, and 196 tons VOC.

1.3 ***Construction Emissions***: In calculating the emissions from construction activities, three evaluations were performed: 1) emissions from vehicles using MOBILE5A emission factors (for on-road movements, including employees and material delivery); 2) emissions from earth movement activities (using time of operation and EPA emission factors) including activities associated with the embankment and movement of fill within the construction sites; and 3) use of other construction equipment for non-site preparation activities (using time of operation and EPA emission factors). A review of the Master Plan Update staging, as defined in Table 2-7 of the Supplemental EIS, shows that construction activity will be at a peak between 1999 and 2001. Further, the haul related to the Third Runway will be at its peak in year 2000. Therefore, year 2000 would result in the greatest quantity of construction emissions.

As is noted in the Final EIS and Supplemental EIS, a range of construction possibilities exist, and a final construction plan for the Third Runway will not be developed until contractor(s) are selected to supply the fill needed for the embankment. However, two scenarios were examined in the Final EIS/Supplemental EIS: Option 1: Maximum use of on-site material and Option 2: Maximum use of off-site material. To test the impact of alternative ways of completing the construction activities, four cases were evaluated. To avoid confusion with the options described above or the alternatives considered in the EIS, the construction cases were re-labeled as Case A through Case D.

	Construction Methods	Annual Tons		
		CO	NOx	VOCs
A	Maximum off-site sources (Option 2) using average annual trips, fill placement, construction employees, average terminal/landside construction	70	114	14
B	Maximum on site fill with movement from 2 on-site sources (Option 1, average hour off-site truck trips), fill placement, construction employees, average terminal/landside construction.	55	94	11
C	Maximum off-site material delivery (Option 2 - using 16 hours of peak hour truck trips) with all emissions occurring in Region, Maximum on-site material delivery (Option 1), fill placement, construction employees (Because this scenario overstates material needs by about 50%, this accounts for emissions by other construction equipment sources).	99	118	18
D	Maximum off-site fill (Option 2), accounting only for emissions in the Region, fill placement, construction employees, average terminal/landside construction (other equipment)	42	72	8

Case C was used as the basis of the construction emissions estimates in the Draft Supplemental EIS and the Updated Draft Air Conformity Analysis, because it represented the highest emissions of any of the four cases evaluated. In its comments, EPA questioned the use of this case because it did not specifically include any emissions from "other construction" equipment. As noted in the table above, Case C substantially overstates the amount of fill that will be needed for the entire Master Plan Update improvements, and the related emissions because it assumes two mutually inconsistent options for getting the needed fill: maximizing fill from both on-site and off-site sources at the same time. This case is not plausible, because if the Port actually maximized getting fill from on-site and off-site sources at the same time, it would obtain about 50% more fill than will be needed for project construction. By substantially overestimating the fill related emissions, this case already incorporates worst case assumptions without specifically accounting for "other construction" equipment.

Because Case A is the plausible case with the highest construction emissions, consideration was given to using it in the Final Supplemental EIS and Final Conformity Analysis. Nevertheless, with EPA's verbal concurrence, Case C was retained because it reflects the highest emissions of any case evaluated. This ensures that worst case assumptions are reflected in the Final EIS and Conformity Analysis.

1.4 *Other Corrections*: While performing quality assurance on the remainder of the data elements, additional errors were identified. Included was the omission of a sizable number of motor vehicles on a small roadway segment for the 2000 Do-Nothing condition. The other changes were minor and had little or no effect on emissions or dispersion. These changes include:

Roadway Volume, Link ID - The review of over 4,000 EDMS roadway data input elements identified a sizable omission in roadway traffic volume for the 2005 Do-Nothing condition. This error identified the omission of approximately 8,000 vehicles in the peak hour

3.06 - CONSTRUCTION IMPACTS

The EIS estimates that it will take three years to complete the embankment (fill) for construction of the Third Runway which will be completed in 2000. Over this three-year period, the EIS estimates 20 million cubic yards (MCY) of fill will be transported to the site. An additional 3 MCY will be needed to complete the full Master Plan improvements; although, that haul will be over the 2000 to 2020 time frame and should not become an issue on the highway system unless the haul is focused into a single construction season. However, the hauling of this additional 3 MCY should be part of any Mitigation Plan Agreement.

Eighteen borrow sites were identified in the EIS as potential sources of fill material. It is possible and likely that material will be transported from multiple sites depending on the contracting procedures of the Port of Seattle and market conditions at the time of contract bidding. Since it is not possible to either predict or control the borrow sources site(s), a Mitigation Plan Agreement must be developed to address impacts which arise from all potential sites. Of these 18 sites, 15 are south of the Airport, 2 are north and 1 is east. There also have been reports of borrow sites that would use Puget Sound as a transport route enabling borrow sites west of the Airport and in Vancouver to become economically feasible.

Hauling of 20 MCY by truck is a concern of the potentially impacted communities regarding safety, congestion and physical damage to their street network. This hauling operation would average 109 single bed trucks per hour in each direction or approximately 2,336 trucks per average day. By contrast, the current apron expansion contract moves 0.45 MCY or approximately 3% of the fill to be moved for construction of the Third Runway. The apron contract uses 10 trucks per hour, 6 days per week for 22 weeks, and is a source of controversy within the surrounding cities, including the City of SeaTac.

Due to the large volume of fill material to be hauled for construction of the Third Runway, double-bed and larger trucks are certain to be in the mix of general traffic. While the number of these larger trucks will be less, (109 singles - equivalent to 55 doubles or 36 triples) the operational characteristics and additional weight of these larger trucks are not directly proportional to the impact they will have on traffic operations and physical damage to the highway system. The Mitigation Plan must consider the impacts caused by the maximum permit weights allowed by Washington DOT and local ordinances.

Due primarily to economic factors as opposed to community opposition, alternate methods have been, and are being, explored by the Port of Seattle to haul 20 MCY to the site. One of the most discussed is a barge and conveyor system that would transport fill material by barge on Puget Sound to a newly constructed off-load facility at the mouth of the Des Moines creek and transfer material to an above ground conveyor belt that would run along the Des Moines creek sewer right-of-way three miles to the Airport property where on-site equipment would transport it to the construction site. Such a concept has been proposed to the Port of Seattle by the Westco Company. The primary advantage of this barge/conveyor system is that it will complete the haul in 18 months - a 50% time-savings over truck hauling.

There would be associated increased operation and maintenance costs to the surrounding communities on the local street system. These would be assessed as part of Mitigation Plan in all three phases - base condition, construction and post construction.

3.08 - FINDINGS

In the EIS, the Port of Seattle made efforts to consider other proposed improvements to the Regional Transportation system within their planning for implementation of the full Master Plan. This is the appropriate approach. The regional projects considered in the EIS were as follows:

- Completion of the proposed regional transit authority (RTA) system.
- Completion of the proposed high-occupancy vehicle (HOV) system.
- Completion of the proposed SR 509 extension.
- Completion of the proposed Southern Airport Expressway.

Each of these regional transportation projects will move forward with varying schedules. The effect of including these four regional projects in the Year 2020 traffic forecast is to underestimate the impacts on the local street systems. Because it cannot be determined at this time which of these regional projects will be implemented and when, a Year 2020 forecast should be made without these projects to assess the worse case impacts on the local street system.

While the intersection analysis performed in the EIS was well done, the number of intersections studied was limited to the access "driveways" or entry points surrounding the Airport. Currently the heavy traffic impacts are east of the Airport (City of SeaTac); however, over time those heavy impacts will be felt throughout the surrounding area. There was minimal analysis performed in the impacted communities. A comprehensive area-wide traffic study needs to be prepared in order to assess potential impacts to the local street system in a comprehensive manner. This need is further indicated by the forecast of a 70% increase in Airport traffic and accompanying 80% decrease in traffic level of service by the Year 2020.

Based upon the EIS forecast of the fill requirements of the Third Runway, a convoy of haul trucks will be necessary in the peak periods of one truck every 30 seconds, 500 yards behind each other for three years. This a staggering statistic. For this reason doubles, triples and maximum weight carriers will be employed to contain the costs of transporting the fill material. The only highway type capable of handling this volume of heavy trucks is the regional freeway system with the Interstate Highways being the best prepared to handle this demand. If the fill material is transported by truck, the haul trucks must remain on the freeway system, be subject to operational restrictions by the DOT and access the construction site via a direct connection between the freeway system and the site. The area along SR 518 and the northern Airport boundary offers such an opportunity for this direct connection which could operate as a temporary construction entrance and be dismantled after completion of the contract.

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There has been no analysis made of potential physical damage to the highway system, particularly the bridge decks, of this heavy truck volume in the EIS. This includes both the State and local highway systems.

While the context of this impact analysis is the communities immediately surrounding the Airport (excluding the City of SeaTac). The analysis of potential physical damage should be conducted along the entire fill haul route(s).

From the potential burrow sites to the Airport, the barge/conveyor system alternate avoids the physical damage and congestion on the highway system and would physically complete the haul in less time than the trucking alternate; however, there are potentially severe environmental impacts associated with this system along Des Moines Creek. There is the potential for spillage of material into Puget Sound along the route and at the transfer pier, above ground conveyor noise and visual impacts, loss of recreational use of the corridor during construction, safety issues with people, and the restoration of the entire corridor upon completion of the operation.

While traffic volumes in the areas surrounding the Airport is forecast to increase by 70% with corresponding decrease in highway level of service of 80%; not all of this increase/decrease is due to construction of the Third Runway or other Master Plan projects. Also included in this traffic are local trips, regional trips, shopping trips, work trips, recreation trips, etc. The approach that must be taken in the Mitigation Plan is to determine the actions necessary to mitigate the entire impact, determine the costs associated with mitigation the particular impact and finally, to the best extent possible, allocate these costs among the various parties in a responsible and equitable manner. This equitable distribution or *pro-rata* share has not yet been determined but should be a key element of the Mitigation Plan. Preliminary indicators in the EIS traffic figures point to a pattern of 33% of traffic on SR 518 is Airport traffic, 50% of all southbound traffic on SR 99 volume is Airport traffic and 25% of northbound SR 99 volume is Airport traffic. This is, of course, not reliable enough to base a cost allocation model upon; however, such a model must be prepared. This effort also would include an updated origin-destination study and a select link/screen line analysis along the principal arterials on an area-wide basis surrounding the Airport. The 1984 O-D study by the Port of Seattle is not adequate to develop this cost allocation model.

Table 8.07 (continued)

City	Area	Amount
Normandy Park	Bonniewood neighborhood	$0.1 million
	North neighborhood	$0.5 million
	Riviera neighborhood	$0.7 million
	Manhattan neighborhood	$0.4 million
	East Central neighborhood	$0.6 million
	Normandy Province neighborhood	$0.1 million
	Arrow Lake neighborhood	$0.2 million
	South neighborhood	$1.7 million
	Total - Normandy Park	**$4.3 million**
Tukwila	Ryan neighborhood	$0.1 million
	Allentown neighborhood	$0.3 million
	Cascade View neighborhood	$0.3 million
	Foster neighborhood	$0.9 million
	Thorndyke neighborhood	$1.3 million
	Tukwila Hill neighborhood	$1.2 million
	McMicken neighborhood	$0.5 million
	M.I.C. neighborhood	$1.9 million
	Riverton neighborhood	$0.8 million
	CBD neighborhood	$3.2 million
	Tukwila Valley South neighborhood	$0.7 million
	Total - Tukwila	**$11.2 million**
Total Study Area		**$28.1 million**

8.14 - CONSTRUCTION IMPACTS - TRUCK HAUL ROUTES MITIGATION

Neighborhoods with principal and minor arterials may experience increased construction truck traffic. The EIS identifies 20 MCY of fill material that will be necessary for construction of the Third Runway. If this fill material is hauled by truck, it should be confined to State freeways. Traffic that would normally use these highways may divert to local roads to avoid the trucks. Individual cities may need to implement truck traffic controls and assign a traffic officer to control traffic and enforce truck haul routes. Table 8.08 indicates neighborhoods where traffic control officers may be necessary to address truck traffic associated with construction of the Third Runway.

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Table 8.08
Neighborhoods Identified for Truck Haul Mitigation

City	Area	Amount
Burien	Shorewood neighborhood	$50,000/year/location
	North Central neighborhood	$50,000/year/location
	North East neighborhood	$50,000/year/location
	Seahurst neighborhood	$50,000/year/location
	Central neighborhood	$50,000/year/location
	East Central neighborhood	$50,000/year/location
	Gregory Heights neighborhood	$50,000/year/location
	South East neighborhood	$50,000/year/location
	Downtown neighborhood	$50,000/year/location
Des Moines	East Central neighborhood	$50,000/year/location
	South Des Moines neighborhood	$50,000/year/location
	East Woodmont neighborhood	$50,000/year/location
Federal Way	Star Lake neighborhood	$50,000/year/location
	Wildwood neighborhood	$50,000/year/location
	Easter Lake neighborhood	$50,000/year/location
	Kitts Corner North neighborhood	$50,000/year/location
	City Center neighborhood	$50,000/year/location
Normandy Park	No neighborhoods in Normandy Park have been identified for truck haul mitigation.	
Tukwila	Allentown neighborhood	$50,000/year/location
	Foster neighborhood	$50,000/year/location
	Thorndyke neighborhood	$50,000/year/location
	Tukwila Hill neighborhood	$50,000/year/location
	McMicken neighborhood	$50,000/year/location
	M.I.C. neighborhood	$50,000/year/location
	Riverton neighborhood	$50,000/year/location
	CBD neighborhood	$50,000/year/location
	Tukwila Valley South neighborhood	$50,000/year/location

Two general methods have been proposed to bring in the fill material - either by conventional truck or by barge on Puget Sound to a conveyor system. Each alternative has its "pros" and "cons". A separate study by HNTB, Inc., evaluated several alternatives and gave the barge/conveyor system a high rank. As of this study, it has not yet been determined which alternative will be selected.

The truck haul alternative requires more time to bring in the fill material and would impact area freeways with additional truck traffic, mostly dual-trailer dump trucks ("doubles") which will impact other vehicular traffic.

The barge/conveyor system will bring in the same amount of fill in approximately half the time, but has the potential to significantly impact the creek corridor and the barge/conveyor transfer point along the Puget Sound coast.

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It is recommended that the Port of Seattle establish contingency plans for the various alternatives for bringing in the fill material. If the truck haul alternative is selected, the Port of Seattle should require the contractor to establish a truck haul route system that keeps haul traffic on State highways or intestates only. Haul traffic should not be allowed on local streets. Haul traffic should also have restricted hours of operation. The Port or its contractor should be financially responsible or provide traffic control officers at needed locations. The haul traffic should also have its own dedicated construction exit/entrance on the appropriate State or interstate highways.

It is further recommended that prior to the start of construction of any work associated with Master Plan Update implementation, the Port of Seattle should identify all borrow source areas and haul routes. Then, the Port of Seattle should re-evaluate the roadway noise analysis to reflect the actual haul routes.

8.15 - CONSTRUCTION IMPACTS - BARGE/RAIL/CONVEYOR SYSTEMS MITIGATION

An alternate to trucking is the use of a series of barges to bring the fill material in to a delivery point where it can be off-loaded onto a conveyor system. While physically twice as fast as the truck haul alternative, it may result in significant environmental damage to the chosen corridor and the nearby coastal areas. An environmental impact study of the barge/conveyor system seems warranted to assure the integrity of the chosen corridor. The plan should also include operational mitigation and corridor restoration upon completion. Table 8.09 indicates neighborhoods where mitigation of the barge/conveyor alternative may be required, if it is assumed that the conveyor is installed along Des Moines Creek.

It is recommended that the Port of Seattle establish contingency plans for the various alternatives for bringing in the fill material. If the barge/conveyor alternative is selected, an environmental assessment should be conducted of the delivery/transfer point, the selected creek corridor, and the coastal zone north and south of the delivery/transfer point to establish its baseline condition. After the material is delivered, these areas will then be restored to their baseline condition or better. The Port or its contractor should also prepare a plan that keeps non-authorized personnel out of the conveyor system, that minimizes noise impacts on adjacent residents, and that contains an emergency contingency plan that addresses pollution, spills, sedimentation, erosion, and other system failures.

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- Each City should develop a transportation management plan as part of its ongoing transportation planning functions.

Table 10.02
Transportation Mitigation

Transportation Mitigation	Community					Total
	Burien	Des Moines	Federal Way	Normandy Park	Tukwila	
Congestion	$26.4 M	$16.9 M	$20.8 M	$9.8 M	$43.7 M	$117.6 M
Physical damage	$49.8	$22.7 M	$25.9 M	$17.7 M	$70.4 M	$186.5 M
Construction	$ TBD	$ TBD	$ TBD	$ TBD	$ TBD	$ TBD
Post-construction	$40.6 M	$33.2 M	$0.0 M	$23.4 M	$77.6 M	$174.8 M
Total	**$116.8 M plus TBD**	**$72.8 M plus TBD**	**$46.7 M plus TBD**	**$50.9 M plus TBD**	**$191.7 M plus TBD**	**$478.9 M plus TBD**

(Source: Section 8, SeaTac Impact Mitigation Study)

Of the nearly $500 million in transportation mitigation identified, approximately 39% is to address the effects of physical damage to the roadway network. About 40% of the total transportation mitigation costs occur within the City of Tukwila, principally because of the high number of State-jurisdiction roads and bridges. Burien and Des Moines account for another 40% of the total costs due to their close proximity to the Airport and project site.

It is significant that most of the costs associated with construction impacts are not yet known and **should be fully identified prior to construction**. Costs for transportation mitigation have not been assigned to any particular funding agency, but it is likely that the Cities, the State of Washington, the Federal Highway Administration/US DOT, and the Port of Seattle will all participate in project funding at various levels.

10.06 - RECOMMENDED SOCIO-ECONOMIC MITIGATION

Section 9 of this report presented the recommended socio-economic mitigation program to address the projected impacts of the proposed Third Runway.

In summary, prior to construction of the Third Runway, the following mitigation measures should be accomplished:

- As mitigation for the loss of relative residential property values by homeowners, it is recommended that the Port of Seattle make a partial payment of property taxes for homeowners in the five impacted cities, the amount of the partial payment equal to an annuity the present value of whose payments equals the property's loss of relative value caused by expansion of the Airport.

HNTB STUDY

FINAL DRAFT

Fill Material Alternative Delivery Method Study for Third Runway

Phase I

SEATTLE-TACOMA INTERNATIONAL AIRPORT

November 1996

HNTB

Contents subject to change based on Phase II analysis

HNTB Study

Introduction

The objective of this study was to conduct a comprehensive evaluation of possible methods of delivering fill material to Seattle-Tacoma International Airport for the construction of a new runway. To date, the Sea-Tac Airport Master Plan Update and associated environmental analyses have focused on delivery of fill material by means of trucks utilizing public roads. This study evaluated alternatives to trucking-only delivery. The evaluation was undertaken through a process of identifying feasible delivery technologies and methods, assessing their technical viability, identifying possible construction/environmental permitting requirements, and assessing the economic issues related to each. The alternative delivery methods were evaluated in the context of transportation corridors which were considered potentially viable routes for transporting fill material. The alternative delivery methods which were identified, some of which include trucking components, were compared to the trucking-only methods considered in previous studies. Three alternative methods of material transport were evaluated by this study: barge, conveyor, and railroad. Since a combination of methods could be used to deliver material to the runway site, intermodal transfer was also reviewed. Intermodal transfer potentially includes barge-to-truck, barge-to-conveyor, rail-to-conveyor, and rail-to-truck. For the evaluation of alternatives, conventional truck transport was included to provide a comparison between the alternative delivery methods. In order to focus study efforts on determining the most feasible delivery concepts, corridors were chosen for further evaluation.

The study was based on an inventory of material transport methods and included the collection of available data from a wide variety of sources. Alternative concepts were developed and a preliminary screening evaluation was performed to identify the most feasible alternatives. These alternatives were then analyzed for permitting, technical viability, and economic feasibility. An evaluation matrix, presented in Table 1, summarizes advantages and disadvantages of the material delivery methods.

A specific construction schedule for fill delivery associated with the new runway embankment has not been established; a range between two and five years in duration has been assumed. Based on current schedule planning, the major fill material delivery contract could potentially begin in 1998. Preliminary estimates indicate the need for approximately seventeen million cubic yards of fill for the new runway. Approximately three million cubic yards of fill could be generated during on-site excavation for the new runway. Thus, fourteen million cubic yards of fill material would be imported either from Port-owned on-site borrow sources or from off-site borrow sources. The quantity of material to be extracted from on-site borrow sources has not been determined; the quantity available could vary significantly. For the purposes of this study, a maximum of five million cubic yards was assumed. Therefore, the quantity of fill material transported from off-site borrow source areas to the runway construction site could range from nine to fourteen million cubic yards, depending on the volume attainable from on-site sources.

This study included participation by contractors, material suppliers, equipment manufacturers, system operators, railroad companies, construction industry representatives, Port of Seattle staff, local and state agencies, and engineering firms.

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using existing local streets to access the runway site. Additional time could be required if special site access facilities were needed for truck traffic.

Based on the information shown on the schedule, the trucking alternative could begin earlier than the other alternatives. Total schedule duration for all alternatives should be refined in the next study phase.

Summary Evaluation

The following matrix shows a summary of feasibility ratings for each alternative. Feasibility ratings were determined through evaluation of technical viability, permitting requirements, schedule, relative cost and competition of contractors. Each mode or alternative was rated from low to high feasibility, with low being defined as the most difficult or least feasible and high as the easiest or most feasible.

Summary Evaluation Matrix

	ALTERNATIVE	FEASIBILITY
1	**Des Moines Creek**	
	Barge - Conveyor	*3.4*
2	**SR 509**	
	Barge - Conveyor	*2.8*
	Barge - Truck	*4.4*
	Rail - Conveyor	*1.8*
	Rail - Truck	*3.2*
3	**SR 518**	
	Rail - Conveyor	*2.8*
	Rail - Truck	*3.0*
Trucking Only		
	Truck	*4.4*

Legend	
5	high feasibility
4	moderately high
3	moderate
2	moderately low
1	low feasibility

The evaluation process was used as a basis for identifying the three alternative methods with the highest feasibility: Corridor 1 - Des Moines Creek; Corridor 2 - SR 506 (Barge-Truck); and Trucking only. Most other alternatives are also viable with somewhat lower degrees of feasibility

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and should not be excluded from further consideration. Either the Port or a private entity could pursue development of the other alternative delivery methods.

The following is a brief summary of the three highest rated alternatives:

Corridor 1 - Des Moines Creek

The Des Moines Creek route barge conveyor mode received a 3.4 rating due to its relative cost competitiveness, and moderate technical and permitting issues. However, if this alternative were pursued, material supply would be limited to off-shore sources. This alternative would likely result in the longest total schedule to begin material transport; however, it has the capability to deliver all of the fill material within a range of 14 months to two years of initial operation.

Corridor 2 - SR 509 (Barge-Truck)

The highest feasibility would be for the barge-truck mode. Within this alternative, the barge-truck mode would result in the lowest transport cost, and would be competitive with the lowest costs of the other corridor modes.

Trucking Only

Trucking was rated 4.4 feasibility. Truck routes would provide the most flexibility in accessing available material sources. Trucking would result in the shortest initial implementation schedule, but potentially represents the longest schedule for delivery of fill material. Depending on the haul routes, local permits might be required.

Conclusion

This study demonstrates that alternative delivery modes are feasible and cost competitive.

As part of the procurement process, it will be necessary to define the conditions which construction contractors are required to meet during the transport of material to the runway site. These conditions should encourage innovative alternatives that could reduce construction impacts. Conditions could be established by the Port well in advance of actual construction activities through coordination and negotiation with the affected jurisdictions.

Alternative delivery methods involving conveyors, barge or rail have up front capital and development requirements. However, relative to trucking, other modes offer a fast delivery schedule once the infrastructure is in place.

This study has identified a number of issues that should be addressed in order to continue development of alternative delivery methods. Many of these issues are related to the permitting process and commitment of support for alternative delivery methods. In order to begin resolving these issues, it is recommended that the Port proceed with the following actions:

Corridor 1 - Des Moines Creek

Communicate with City of Des Moines requesting a partnership commitment to enable the Port and/or corridor proponents to proceed with permitting issues.

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Corridor 2 - SR 509

Explore potential local jurisdiction permitting issues using state routes for truck traffic. Confirm Department of Transportation requirements for a temporary construction interchange on SR 509.

Trucking Only

Explore potential local jurisdiction permitting issues using state routes and local streets for truck traffic. Confirm Department of Transportation requirements for a temporary construction interchange on SR 518.

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Summary

The following summarizes the technical viability, the permitting acquisition feasibility, and the economic feasibility of the fill material delivery methods and corridors evaluated in this study. All corridors, as well as trucking-only methods, are rated in a matrix located at the end of this section.

Technical Viability

It is technically feasible to construct all the alternative methods of transporting fill material within each of the three corridors considered. Some methods are more complex than others.

Corridor 1 is feasible but there are several challenges to consider. A tunnel or similar passageway would need to be constructed to allow the conveyor to pass through the Marine View Drive embankment. The City of Des Moines and the State Department of Transportation are planning the construction of a pedestrian nature trail connecting Des Moines Beach Park and Des Moines Creek Park. It is feasible to construct a tunnel for a conveyor and effectively serve both projects.

For Corridor 2, it is technically feasible to construct a barge transfer facility and a conveying system to transport material from the Duwamish Waterway to the runway site. There are several possible sites both Port-owned and privately owned that could be developed or modified for use as a barge transfer facility. The conveyor route is difficult from the Duwamish Waterway regardless of which route is taken. This system, although possible to construct, has several conflicts with existing facilities and terrain, such as power lines, steep hillsides, elevated structures, horizontal and vertical transfer points, and roadway crossings. Additionally, this conveyor route would be the longest of all the conveyor routes reviewed. Truck routes, on the other hand, are very feasible starting at a barge or rail terminal and using either West or East Marginal way to SR 509. Several options for access to the runway site would be available.

For Corridor 3, it is feasible to construct a temporary rail transfer terminal in the Tukwila/Renton area near I-405 and a conveyor from this rail transfer terminal using the I-405 corridor, through the I-405/I-5 Interchange and up SR 518 to the runway site. The conveyor route on SR 518 poses many or the same difficulties as the SR 509 route. However, the SR 518 route is much shorter and has fewer roadway crossings. The SR 518 conveyor route through the I-405/I/5 Interchange would be complex. From a rail transfer terminal, various truck routes are very feasible to the runway site.

Trucking is technically feasible, as a variety of potential truck routes exist. Affected intersections near the Airport, if used as haul routes during peak periods, would require further investigation to determine their reserve capacity with or without mitigation. Avoiding roadways that are affected by congestion during peak periods, hauling during off-peak hours, and a long construction schedule would help alleviate impacts on the existing roadway system.

Permitting Acquisition Feasibility

It is assumed that permits for the three corridors and for trucking can be acquired. Utility and property easements and local permits are likely to be the most difficult to acquire for each of the corridors and for trucking. The following matrix (Table 1) presents a ranking of the feasibility of

Table 1
Summary Evaluation Matrix

		Technical	Permitting	Schedule (2)	Relative Cost	Competition	Combined Feasibility
1	**Des Moines Creek**						
	Barge - Conveyor	4	3	3	5	2 (3)	3.4
2	**SR 509**						
	Barge - Conveyor	3	3 (1)	3	2	3	2.8
	Barge - Truck	5	4 (1)	4	5	4	4.4
	Rail - Conveyor	2	2	2	1	2	1.8
	Rail - Truck	3	4	3	3	3	3.2
3	**SR 518**						
	Rail - Conveyor	2	3	3	3	3	2.8
	Rail - Truck	2	3	3	4	3	3.0
Trucking Only							
	Truck	4	5	4	4	5	4.4

Definitions:

Technical - The feasibility to construct the mode of transport including loading and off-loading facilities.

Permitting - The feasibility to obtain permitting including amount and difficulty of permits per mode and time to obtain permits. This includes time for infrastructure development.

Schedule - The fasibility for the mode of tranportation to meet the requirements of the Third Runway construction schedule. This includes time to obtain permits and construct necesssary infrastructure.

Relative Cost - Cost comparison relative to other modes.

Competition - Rates the degree a corridor allows for competition.

Combined Feasibility - Summary of feasibilities.

(1) Score is based on existing permitted barge transfer facilities.

(2) May change based on Phase II analysis.

(3) Assumes this corridor is not open to all contractors.

Legend	
5	high feasibility
4	moderately high
3	moderate
2	moderately low
1	low feasibility

I:\20764\predesign\haulstdy\matrix4.xls

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permit acquisition for the components of the different corridors. The ranking is based on anticipated issues, the number and types of permits necessary for each corridor and for trucking, and the number of local governments involved in the permitting process. The possible rankings are (1 through 5) low, moderate/low, moderate, moderate/high, and high feasibility for permit acquisitions.

Economic Feasibility

The purpose of evaluating the economic feasibility was to determine the relative cost between alternatives. Since each of the alternatives are in the early stages of development, it was necessary to use a range of costs in the analysis. A capital investment would be required to build loading and off-loading facilities to transfer fill material for a conveyor system for barging and rail. The capital investment cost for trucking is included in the cost per cubic yard.

Based on the cost data gathered from contractors and material suppliers, the following table summarizes an estimated average cost per cubic yard for each delivery method. Costs were calculated on the basis of nine million cubic yards of material delivered to the runway site. The total cost of fill material would include the raw cost of material at the source and costs for placement and compaction at the runway site, which is not included in the following table.

As shown in Table 2, the most cost effective ways of transporting fill material appear to be by: 1) Corridor 1, barge to conveyor on Des Moines Creek; 2) Corridor 2, barge to the Duwamish Waterway and trucking up SR 509 to the runway site; and 3) trucking only, with shorter haul distances obviously resulting in lower cost. The method which appears least cost effective is the rail to conveyor on SR 509, mainly due to the capital investment and high cost of the conveyor. With the exception of the rail-to-conveyor method under Corridor 2, there is not a wide disparity between the costs for the different methods.

Schedule

For the purposes of this report, schedule is defined as the time necessary to complete the engineering, environmental assessment, permitting, and construction of infrastructure and facilities required to begin delivering material to the runway site. Schedules are highly variable and could easily change during the planning, design, and construction process.

Schedules for each alternative were based on the mode which would require the longest time to implement. Corridor 2 and 3 were based on a new rail transfer facility and conveyor system. The rail component requires the longest infrastructure time. The trucking schedule was based on using existing local streets to access the runway site.

Comparative Evaluation

Table 1 summarizes the feasibility of the material transportation modes within the three corridors and trucking. For Corridor 1, Des Moines Creek, barge-conveyor has a rating of 3.4 feasibility. For Corridor 2, SR-509, barge-conveyor has a rating of 2.8 feasibility, barge-truck has a rating of 4.4 feasibility, rail-conveyor has a rating of 1.8 feasibility and rail-truck has a rating of 3.2 feasibility. Corridor 3, SR-518, rail-conveyor has a rating of 2.8 feasibility, and rail-truck has a rating of 3.0 feasibility. Trucking has a rating of 4.4 feasibility.

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Table 2
Economic Feasibility

	DELIVERY METHOD	CORRIDOR 1 Des Moines Creek	CORRIDOR 2 SR 509				CORRIDOR 3 SR 518		TRUCKING ONLY
		Barge-Conveyor	*Barge-Conveyor*	*Barge-Truck*	*Rail-Conveyor*	*Rail-Truck*	*Rail-Conveyor*	*Rail-Truck*	*Truck (Round Trip)*
	Mode Transfer	$ 2,000,000	$ 2,000,000	$ 2,000,000					
BARGE	Transport Cost	$ 7,700,000 to $19,400,000	$ 7,700,000 to $19,400,000	$ 7,700,000 to $19,400,000					
	Mode Transfer	$ 1,500,000	$ 1,500,000	$1,500,000					
RAIL	Capital Investment				$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	
	Transport Cost				$62,000,000	$62,000,000	$62,000,000	$62,000,000	
	Mode Transfer				$ 1,500,000		$ 1,500,000		
CONVEYOR	Capital Investment	$ 7,400,000	$21,100,000		$21,100,000		$10,500,000		
	Transport Cost	$ 9,300,000	$27,000,000		$27,000,000		$23,600,000		
	Mode Transfer	$ 2,500,000	$ 2,500,000		$ 2,500,000	$ 2,500,000	$ 2,500,000	$ 2,500,000	
TRUCK	Transport Cost			$20,000,000		$20,000,000		$10,000,000	$ 9,900,000 to $49,500,000 (8 to 40 miles)
	TOTAL	$30,400,000 to $42,100,000	$61,800,000 to $73,500,000	$31,200,000 to $42,900,000	$118,600,000	$89,000,000	$104,600,000	$79,000,000	$ 9,900,000 to $49,500,000
	Average Cu. Yd.	$3.40 to $4.70	$6.90 to $8.20	$3.50 to $4.80	$13.20	$9.90	$11.60	$8.80	$1.10 to $5.50

NOTES: Assume 9 million cubic yards.
Costs do not include engineering or permitting costs.

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The evaluation process was used as a basis for identifying the three alternative methods with the highest feasibility: Corridor 1 - Des Moines Creek; Corridor 2 - SR 506 (Barge-Truck); and Trucking only. Most other alternatives are also viable with somewhat lower degrees of feasibility and should not be excluded from further consideration. Either the Port or a private entity could pursue development of the other alternative delivery methods.

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Conclusion

This study demonstrates that alternative delivery modes are feasible and cost competitive.

As part of the procurement process, in Phase II it will be necessary to define the conditions which construction contractors are required to meet during the transport of material to the runway site. These conditions should encourage innovative alternatives that could reduce construction impacts. Conditions could be established by the Port well in advance of actual construction activities through coordination and negotiation with the affected jurisdictions.

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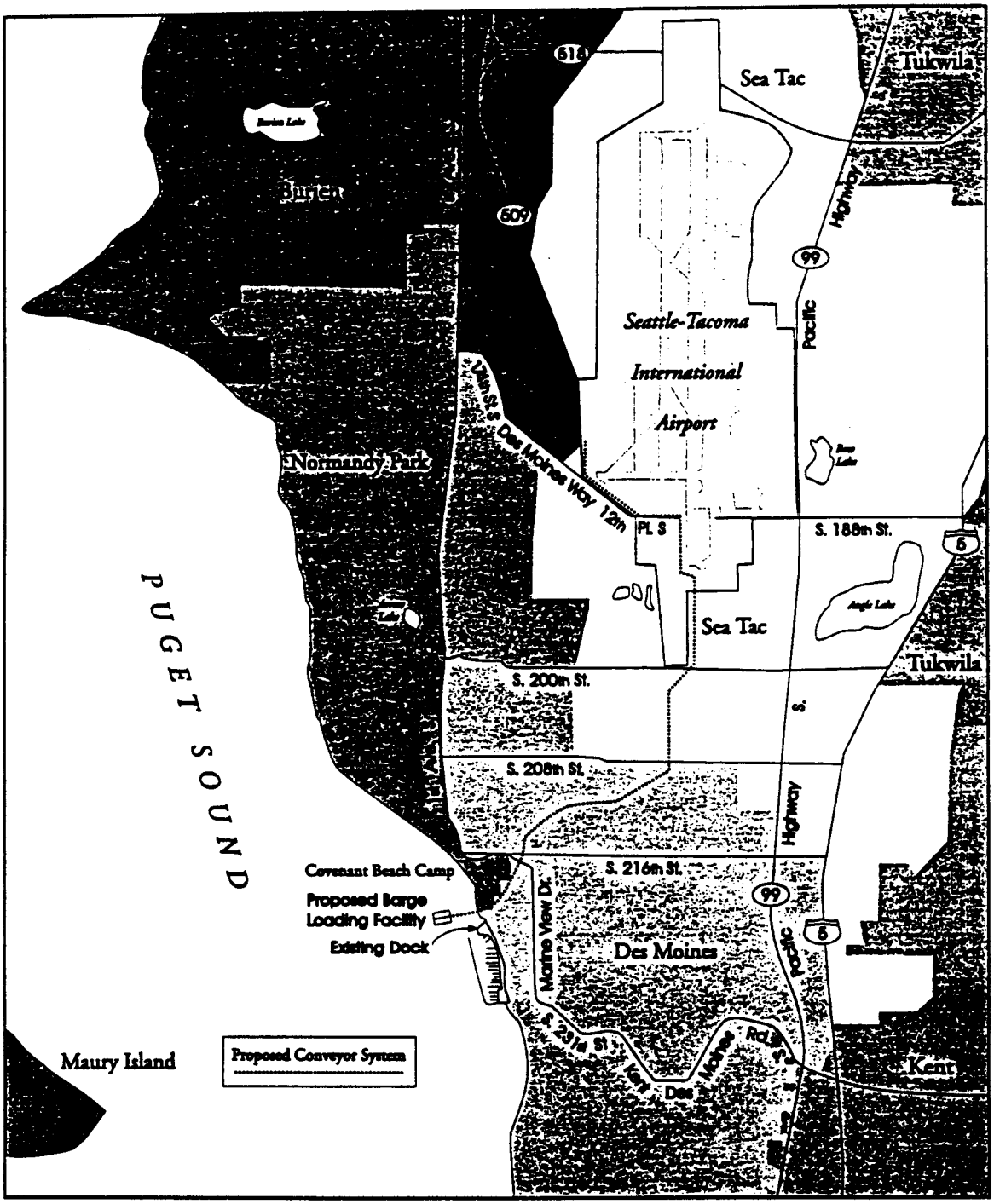
Corridor 2 - SR 509

Explore potential local jurisdiction permitting issues using state routes for truck traffic. Confirm Department of Transportation requirements for a temporary construction interchange on SR 509.

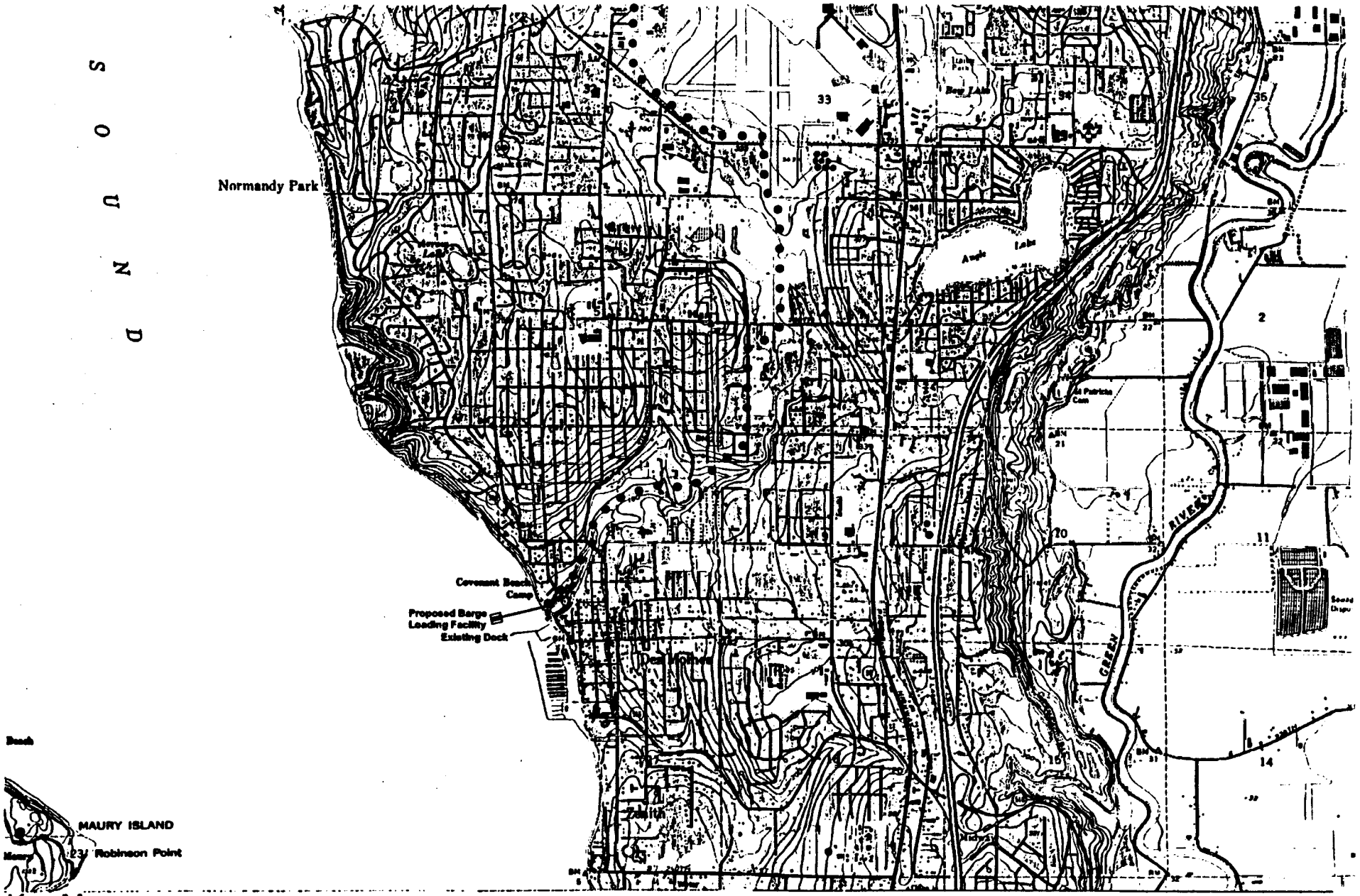
Trucking Only

Explore potential local jurisdiction permitting issues using state routes and local streets for truck traffic. Confirm Department of Transportation requirements for a temporary construction interchange on SR 518.

ENVIRONMENTAL MATERIALS TRANSPORT



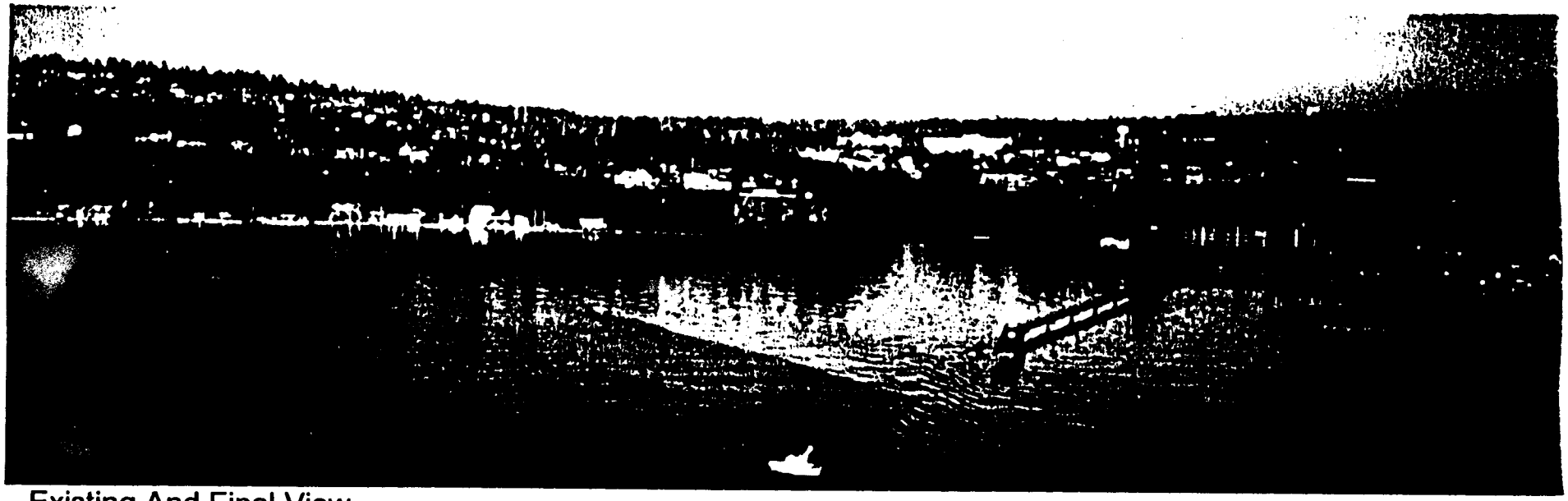
AR 036502



ENVIRONMENTAL MATERIALS TRANSPORT L.L.C

Conveyor Option

AR 036503



Existing And Final View

Simulated View

ENVIRONMENTAL MATERIALS TRANSPORT L.L.C

13353 Bel Red Road Ste. 104
Bellevue, WA 98006
(425) 401-0630
10 MAR 96

AERIAL VIEW OF PROPOSED BARGE LOADING FACILITY

Conveyor Option

MENTAL Inc.
Computer Graphics
88 Virginia Street
Seattle, WA 98101

AR 036504

Existing And Final View

Simulated View

ENVIRONMENTAL MATERIALS TRANSPORT L.L.C

[illegible]
Bellevue WA [illegible]
(425) 401 9939
18 MAR 08

VIEW FROM DES MOINES BEACH PARK

Conveyor Option

MENTAL Inc
Computer Graphics
99 Virginia Street
Seattle WA 98101

AR 036505

Existing And Final View

Simulated View

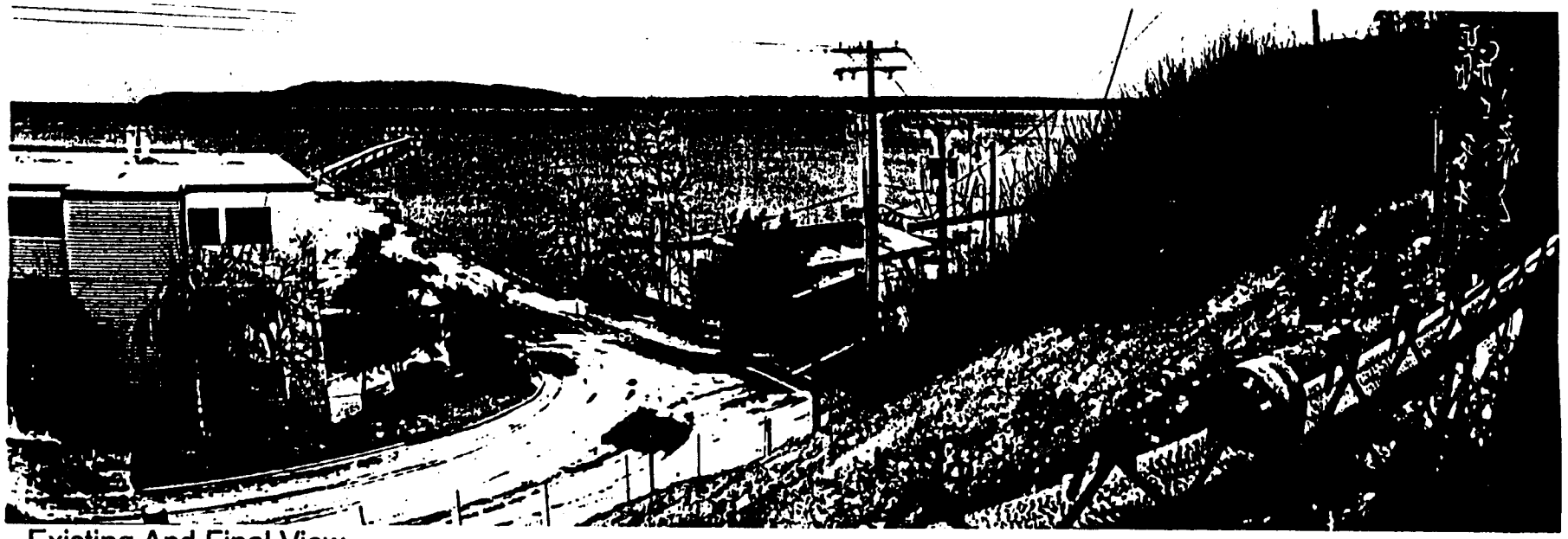
ENVIRONMENTAL MATERIALS TRANSPORT L.L.C

VIEW NORTH IN DES MOINES BEACH PARK

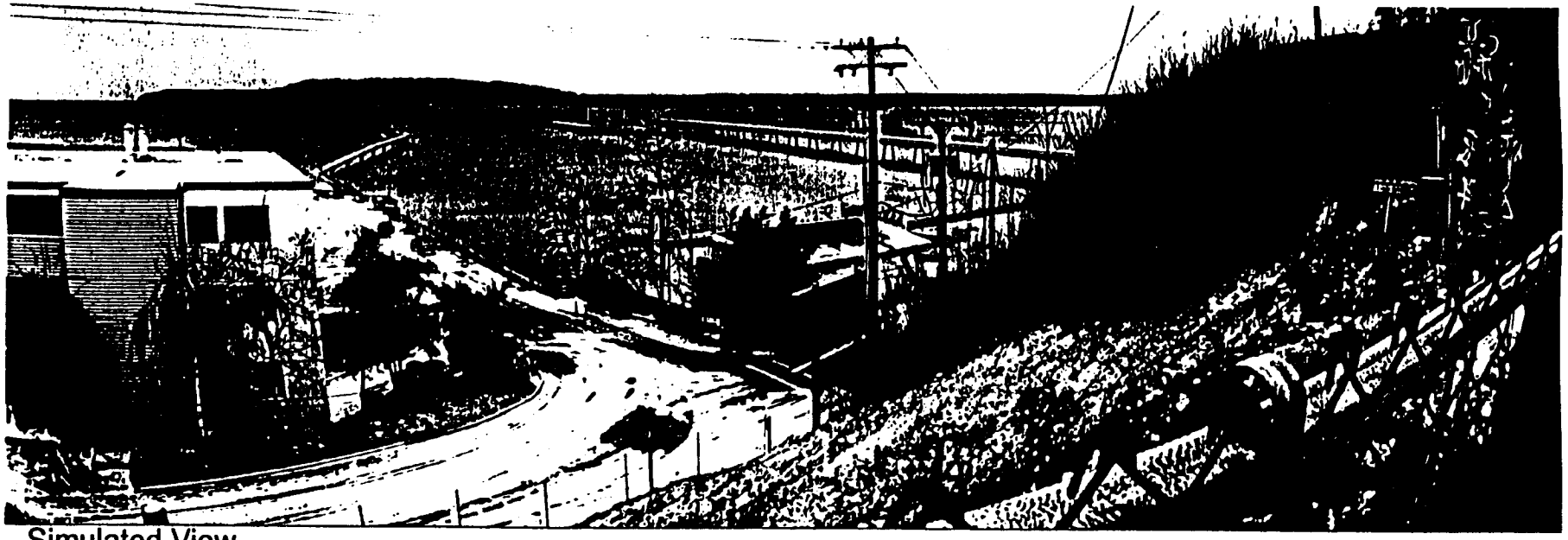
Conveyor Option

MENTAL Inc.
Computer Graphics

AR 036506



Existing And Final View



Simulated View

ENVIRONMENTAL MATERIALS TRANSPORT L.L.C

13353 Bel Red Road Ste. 104
Bellevue, WA 98005
(425) 401-8630
18 MAR 06

VIEW FROM OVERLOOK PARK II

Conveyor Option

DENTAL Inc
Computer Graphics
89 Virginia Street
Seattle, WA 98101

AR 036507

Existing And Final View

Simulated View

ENVIRONMENTAL MATERIALS TRANSPORT L.L.C
13303 Bel Red Road Ste. 104
Bellevue, WA 98005
(425) 401-0630
16 MAR 00

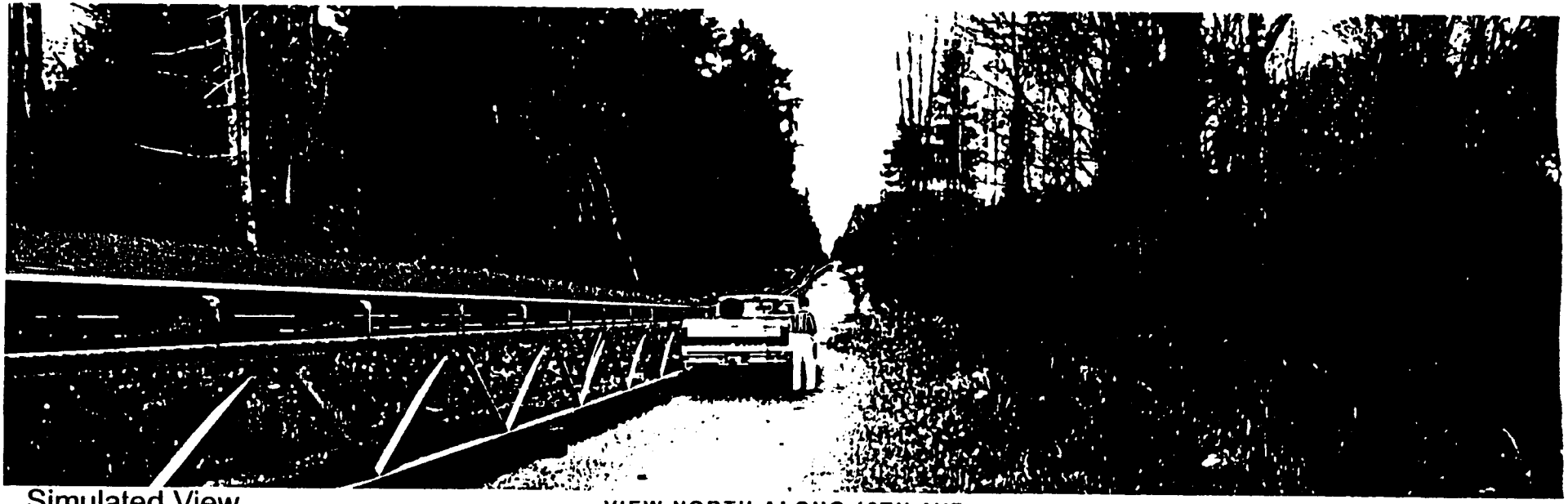
VIEW NORTH FROM SENIOR CENTER

Conveyor Option

BENTAL Inc.
Computer Graphics
88 Virginia Street
Seattle, WA 98101

AR 036508

Existing And Final View



Simulated View

ENVIRONMENTAL MATERIALS TRANSPORT L.L.C

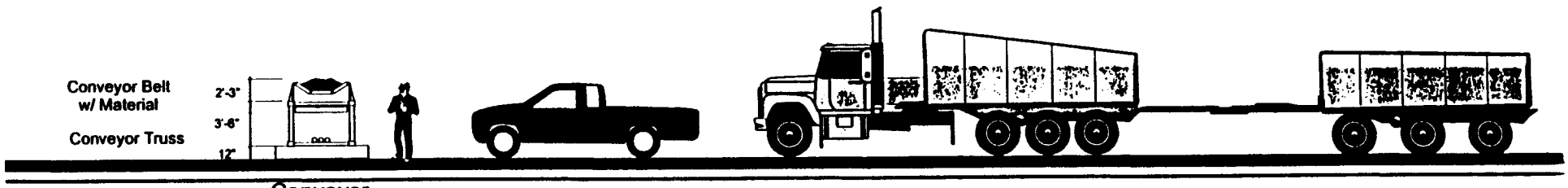
13363 Bel Red Road Ste 104
Bellevue, WA 98005
(425) 401-9938
18 MAR 00

VIEW NORTH ALONG 18TH AVE.
(On Secured Port Property)

Conveyor Option

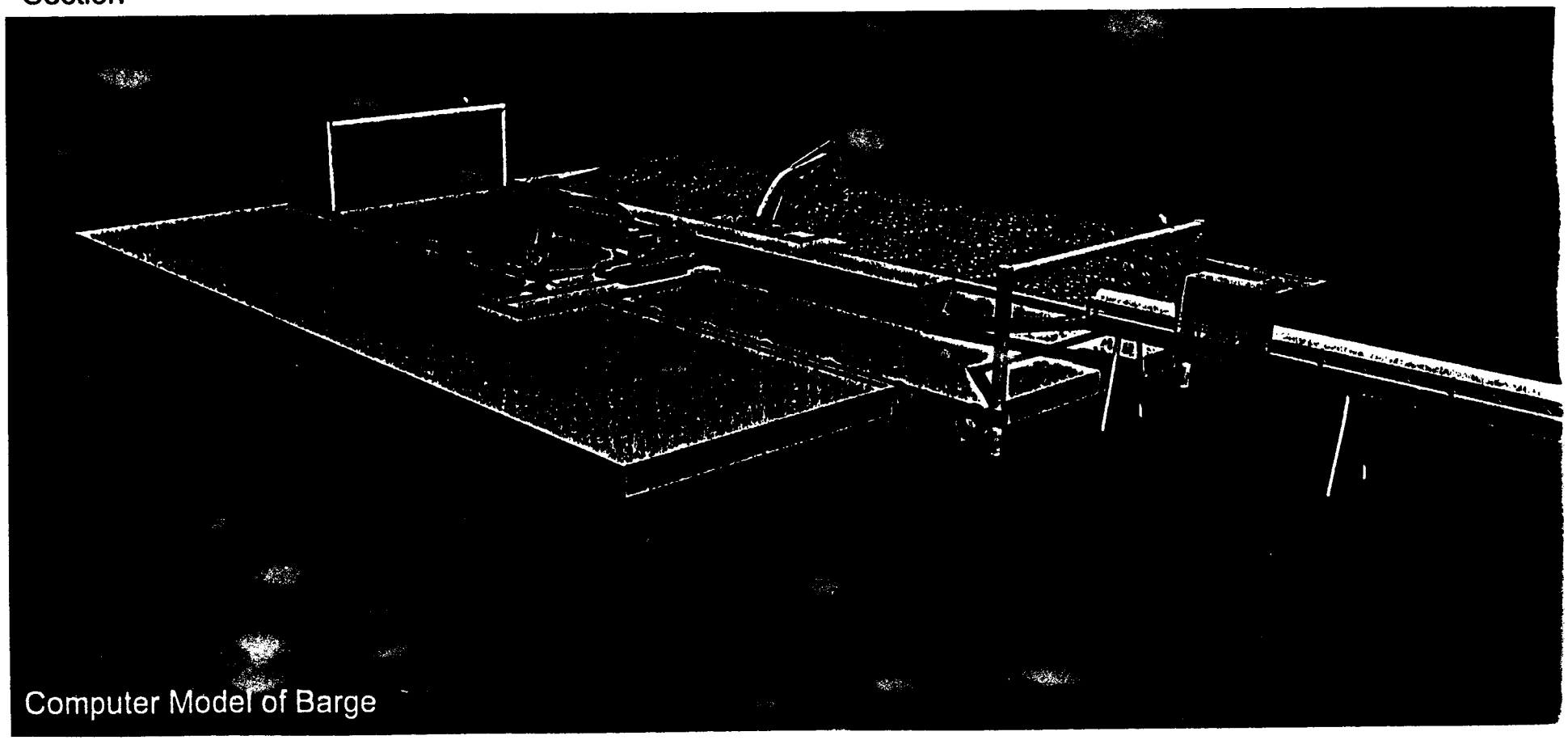
MENTAL Inc
Computer Graphics
89 Virginia Street
Seattle, WA 98101

AR 036509



Conveyor

Section



Computer Model of Barge

AR 036510

ENVIRONMENTAL MATERIALS TRANSPORT L.L.C
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Conveyor Option

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ENVIRONMENTAL MATERIALS TRANSPORT

The Conveyor Option

When the builders of the Tom Bigbee Waterway project in Alabama needed to move 145 million cubic yards of material, they chose a conveyor system patented by a Washington man. The same temporary, modular conveyor system was used when 2 million cubic yards of materials needed to be moved in 4 months to build Highway 167 linking Puyallup, Renton and other cities in the Green River Valley. Conveyors have been in use for many years in this area. The Denny Regrade used a conveyor system more than 60 years ago in a large project to reshape the north end of Seattle's downtown area. And Metro's West Point Sewer Treatment Plant project used barges, a temporary dock and conveyors to keep trucks hauling construction material off neighborhood streets.

A Realistic Alternative if Construction Proceeds

"This system is unique, cost-effective and has a proven record of safety and efficiency," said George Smith, senior engineer for the Washington State Department of Transportation on the Highway 167 project. "This system is innovative because it can be installed without bulldozing or leveling a route, it can be removed quickly and easily and it can move a lot of materials quickly. It really worked well on Highway 167 and it kept thousands of trucks off the roads."

Bill Burman, construction inspector for Metro on the West Point Treatment Plant project, said the conveyor system used to bring construction materials to the job provided some important environmental benefits. "The greatest thing that the conveyor did for the environmental part of the project was the reduction of truck trips," Burman said. "It was very easy to restore the area once we were done with the conveyor system. It was just a matter of pulling it out...and it was like it was never there. It was a natural area before and it's again a natural area."

Scott Smith, former president of the Magnolia Community Club, led efforts to oppose the West Point project. But, he supported the use of conveyors over trucks when it became inevitable that construction would proceed. "We didn't have these big batches of trucks or the problem with traffic," Smith said. "The other advantage, although Metro didn't use it, was that the conveyor could have worked 24-hours-a-day without having any trucks going through the community at all. The other factor was wear and tear on the streets with the number of trucks that were suggested originally."

At the end of the project "they removed the conveyor belt, the (concrete) batch plant, the pier and now the beach is essentially the same way it was before the project began," Smith said. "I don't think that there is any question that we wanted to use anything other than trucks."

Now, Environmental Materials Transport, LLC, a subsidiary of the Washington company that invented and patented a modular and mobile conveyor system, is proposing that it be considered as an alternative to trucking fill materials to Sea-Tac International Airport should construction on a third runway proceed.

Conveyors are Part of Everyday Life

Conveyors are a time proven technology used around the world for moving various kinds of materials safely and efficiently. Other types of conveyors which people might be familiar with include escalators and moving sidewalks, grain elevators, baggage belts, grocery check-out stands and innumerable examples in food processing facilities. Many car washes even use a type of conveyor.

Dealing with Controversy

While everyone acknowledges that the construction of the third runway is a highly emotional issue, and that several lawsuits are pending, Hank Hopkins, inventor of the patented conveyor and president of Environmental Materials Transport has proposed it only as a back-up plan should construction occur.

"I don't want any of the elected officials in the cities around the airport to do anything that their constituents don't want them to," Hopkins said. "I don't believe they should back away from their overall position on runway construction. But if, and only if, construction does proceed, I believe that our conveyor proposal represents a real opportunity to have an attractive alternative with far fewer environmental problems than would be caused by trucking these materials over area streets and highways."

Here's How it Would Work

Here's what the conveyor proposal would consist of and how it would work. (Please also review the computer generated graphics included in this packet for a visual depiction of the route and appearance of the proposed conveyor system.)

The system would include a temporary dock and pier in Puget Sound where an average of four barges per day would be unloaded by excavators. The modular conveyor would travel along the hillside on the northern edge of Des Moines Beach Park and then along the service road that borders Des Moines Creek and a Midway Sewer District line. The conveyor would travel beneath Marine View Drive South in a culvert or under a new bridge proposed for the road. Then it would follow a sewer line service road that borders the creek in an inaccessible ravine area. The City of Des Moines wants to open this inaccessible area up for a park, which would occur after the conveyor was removed. The conveyor would pass the Midway Sewer District's treatment plant and then go onto fenced airport property. Once on airport property, it would travel over or under any streets it would cross (South 200th and South 188th Streets). There are several electrical lines already in the area that could be used to power the clean and quiet conveyor system.

Removal and Restoration

The conveyor system would be removed after completing its task and the conveyor route restored to its original condition or, in some cases, improved. Because the conveyor is modular, it does not require a path to be built or bulldozed, so removal and site restoration is much easier than with standard conveyors.

Security, Safety and Environmental Protection

The conveyor would be fenced for security and covered to reduce noise and protect air quality in the public park area and where it passes in close proximity to occupied residences. To protect water quality, the conveyor belt would be continuously cleaned as it operates. Security cameras and personnel would guard the system 24 hours a day. Operations would be fully computerized so the system would shut down immediately if any trouble developed. Maintenance personnel would be on site at all times.

To ensure safety and environmental protection for surrounding communities, Environmental Materials Transport is proposing a Contract with Communities. (See enclosed.)

Limiting Truck Impacts

This conveyor system would provide a contingency plan for construction that would eliminate the traffic impacts caused by trucking the fill materials on area streets and highways. Trucking would require about 800,000 round trips, by double dump trucks. This translates into 60 round trips per hour, 12 hours a day, six days a week, for more than four years.

The conveyor would reduce the time needed to transport fill materials by 40 percent, including the time needed to build the system — about six months.

Conclusion

While there continues to be a significant amount of controversy regarding the construction of the third runway, we believe it makes sense to have a contingency plan that limits the environmental impacts caused by trucking the needed fill material should construction proceed. The Environmental Materials Transport proposal presents an opportunity to develop a realistic alternative.

ENVIRONMENTAL MATERIALS TRANSPORT

Contract with the Communities

Environmental Materials Transport LLC is proposing to build a temporary conveyor system to transport fill materials to Sea-Tac Airport in the event that construction of a third runway proceeds. This conveyor would provide a contingency plan for construction that would eliminate the impacts of trucking fill materials.

To ensure safety and environmental protection, Environmental Materials Transport proposes the following contract with the communities of Des Moines and SeaTac bordering the proposed project.

- A bond will be obtained as security to ensure that all the terms and requirements of permits needed to build and operate the conveyor system are performed. This includes meeting or surpassing environmental protection requirements of the City, State and Federal agencies so that tidelands, shorelines, water and air quality, and fish and wildlife in and around the project are protected.
- This bond will also ensure that the dock, pier and conveyor are removed, and the route restored to its original or improved condition, when the project is completed.
- The conveyor will be covered to protect air quality and insulated to reduce noise levels all the way from the dock, through public park area and anywhere it passes within close proximity to occupied residences.
- The independent company contracted by the City of Des Moines to conduct the environmental study of the project, will also provide independent monitors to scrutinize the environmental performance of the system during its construction and use. These environmental monitors will report regularly to city and state environmental officials.
- Detailed security and maintenance plans will ensure the system is kept safe and that those using the park and living in adjacent neighborhoods are protected. The conveyor will be fenced and monitored by security cameras 24 hours-a-day to prevent unauthorized access and security personnel will be on duty around the clock.

ENVIRONMENTAL MATERIALS TRANSPORT

Frequently Asked Questions

Regarding the proposal to use a temporary conveyor system to transport fill material for the third runway, if built

Q. Who would build and run the conveyor belt?

A. The conveyor belt is a patented, modular system that would be designed, built and run by Environmental Materials Transport, LLC, a wholly-owned subsidiary of a 31-year-old Washington State Corporation. Environmental Materials Transport is not affiliated with the Port of Seattle, and would bid on, and be awarded this project, according to the procedures of the Port of Seattle. The conveyor system Environmental Materials is proposing has been successfully used in several major projects, including construction of Washington State Highway 167, at construction materials suppliers in Vancouver and Victoria, British Columbia, and at the Tom Bigbee Waterway project in Mississippi and Alabama. These conveyor systems have been proven to be efficient, cost effective and safe for the environment.

Q. Does supporting the option of a conveyor belt versus trucking mean supporting the third runway?

A. No. The proposed conveyor belt is simply a much less environmentally harmful alternative than the 800,000 double dump truck trips that would be needed to transport the fill material over a three-to-four-year period. The conveyor belt would be an available alternative <u>if, and only if</u> the construction of the third runway proceeds.

Q. How much would it cost?

A. Environmental Materials Transport will fund more than $13 million in conveyor construction costs.

Q. Is it safe?

A. The state Department of Ecology, the City of Des Moines, and other state and federal agencies are, as part of an environmental study, looking at the conveyor system. One of the benefits of using a conveyor system is that it would eliminate the need for trucks to haul the fill material, avoiding exhaust emissions, traffic hazards, road wear, congestion, dust and other environmental and social impacts associated with 800,000 trips of heavy vehicles hauling fill directly over freeways and neighborhood roads for four years.

Q. What would the conveyor belt look like?

A. The conveyor belt is a temporary and portable 7-foot-wide, 5-foot-high machine. It is quiet and safe. It would be covered and fenced for safety and would include built-in noise reduction and air quality protection systems in key areas. It would be fenced and monitored by security personnel and video cameras.

Q. How would the conveyor belt work?

A. The conveyor belt would be constructed to run along a route beginning at a temporary, all weather dock paralleling the existing pier in Des Moines. An average of four barges per day would supply the fill material. The fill material would be loaded onto the conveyor belt and routed along the hillside and service road on the northern edge of Des Moines Beach Park, beneath Marine View Drive to fenced airport property for unloading and distribution.

Q. What would be used for fill material and where would it come from?

A. The fill material would be comprised primarily of sand and gravel from sources that have access to water so they could be delivered by barge to the temporary dock and pier. These potential sources range from south Puget Sound to Canada.

Q. How would the barges needed to supply the fill material affect the marine environment?

A. Tug boats and barges routinely transport sand, gravel and other construction fill material around Puget Sound. Barge routes are controlled by the Coast Guard and have been proven to be a safe, reliable and environmentally sound method of materials transport.

Q. How would fill material be put onto the conveyor belt?

A. Quiet excavators would be used to unload the barges and place materials on the conveyor.

Q. How long would the conveyor belt be and what is the route?

A. The conveyor belt would be approximately 2 miles long and would run from a temporary pier in Des Moines, along the hillside on the northern edge of Des Moines Beach Park, and along the Midway Sewer District's utility road that parallels Des Moines Creek to fenced Port of Seattle property.

Q. Who would be responsible if there were any sort of accident that affected the communities and environment?

A. Environmental Materials Transport will be responsible for repair of any accident. This responsibility will be backed up by a performance bond to ensure protection of tidelands, shorelines, water and air quality and fish and wildlife in and around the project.

Q. How would people and animals be protected from it?

A. The conveyor belt would be covered in the public park area, and fenced in key areas and in close proximity to occupied residences, as well as monitored by video cameras, security personnel and environmental monitors.

Q. Have conveyors been used for other large projects in our region?

A. Conveyors were used extensively during the Denny Regrade project in Seattle. Between 1903 and 1928, the 100-foot-high Denny Hill, which covered 62 city blocks, was leveled. Conveyors were among the methods used to transport the material to barges for disposal.

Q. What would the area be like once the conveyor belt is removed?

A. Once the conveyor belt and temporary pier are removed, the area would appear as it did before the conveyor was in place and some areas would actually be improved. Conveyor removal and site restoration are made much easier by the system's design, which does not require excavation or bulldozing of a route.

Q. Would we still be able to use our beaches and parks with this system in place?

A. Access to beaches and parks would not be affected while the proposed conveyor belt is temporarily in place.

Q. What hours would it operate?

A. The conveyor belt would operate 20 hours per day, 6 days per week.

Q. Is it noisy?

A. The conveyor belt would be covered with a noise reducing barrier and would be more quiet than an idling dump truck. With the noise suppression system in place, the noise from the conveyor should be no greater than the noise from Des Moines Creek.

Q. How long would the conveyor belt project take including assembly?

A. The proposed conveyor belt system would cut the length of the project to provide fill by 40% compared to trucking which would require approximately 800,000 double dump truck trips over a four-to-five-year period. The conveyor would take approximately six months to build and the entire project would last about 2½ years.

Q. Who monitors the conveyor belt?

A. The conveyor belt would be monitored by video cameras, security personnel, system operators, and independent environmental monitors contracted by the City of Des Moines.

Q. Would the material from the conveyor drop in the water and on the ground?

A. The conveyor belt system is equipped with transfer stations which constantly clean the belt and assure that materials remain on the belt. A wiper system continuously cleans the empty belt as it returns to receive more materials.

Q. What happens if the conveyor belt develops a mechanical problem?

A. The conveyor belt automatically shuts down if any type of a problem is detected.

Q. Would trucks still be needed for the airport project if a conveyor belt is used?

A. Some trucks may still be used on airport property, but the conveyor belt option eliminates the need for truck transport of fill material on public streets and highways.

Q. Would it remain in place after the job is completed?

A. The conveyor belt and temporary pier would be dismantled and removed upon completion of the project.

Q. Would it affect traffic?

A. The conveyor belt would run along a route that would not have any affect on traffic. It would pass beneath or over any streets it would cross.

ENVIRONMENTAL MATERIALS TRANSPORT

Comparison of Trucking Vs. Conveyor Belt System as a Means of Transporting Fill Material If the Third Runway is Built

TRUCKING	CONVEYOR BELT
• Double dump trucks more than 70 feet long would run 270 days per year for over 4 years. This equals more than 800,000 round trips, six days a week, 12 hours a day. A double dump truck would leave and enter the construction site once every minute.	• The Department of Ecology, the city of Des Moines and other state and federal agencies are, as part of an environmental study, looking at the conveyor system. One of the benefits of using a conveyor system is that it would eliminate the need for trucks to haul the fill material, avoiding exhaust emissions, traffic hazards, road wear, congestion, dust and other environmental and social impacts.
• If all these dump truck trips were combined, and the truck were put nose to tailgate, it would form a line 10,600 miles long, more than the distance from Seattle to Paris and back.	• The conveyor belt would span a two mile distance. It would travel above or beneath roadways and would not affect traffic. The conveyor belt would run 20 hours per day, 6 days per week for approximately 1.5 to 2.5 years. It would require six months to construct.
• Double dump truck routes would likely begin at the Duwamish Waterway and travel up Highway 509, or would travel on State ıtes 167 and 518, along I-5 and 405 and along Des Moines ,ıemorial Drive, and South 160th or South 176th before converging on port property.	• The conveyor belt route would run from a temporary pier in Des Moines along the hillside on the northern edge of Des Moines Beach Park and along the Midway Sewer District's maintenance road that parallels Des Moines Creek to fenced Port of Seattle property.
• Large trucks would consume more than 3 million gallons of diesel fuel while supplying fill material for the third runway project.	• The conveyor belt would run quietly on safe and abundant electricity.
• The final SeaTac Airport Environmental Impact Statement estimates that this amount of truck use would require pavement overlays or reconstruction of roads at the end of the construction period. A mitigation cost study conducted by HOK Engineering indicated it would cost $186 million to repair damaged roadways after heavy truck use. An EIS on the runway project estimated 704 tons of pollution would come from truck exhausts.	• A performance bond would be obtained to ensure that all the terms and requirements set by the city and state agencies for the permits needed to build and operate the conveyor system are performed. This includes meeting or surpassing environmental protection requirements so that tidelands, shorelines, water and air quality and fish and wildlife in and around the project are protected.
• Trucks would travel many miles per each round-trip through existing traffic. Over a 3-year period 13,500,000 large truck miles would be added to the almost 4,000,000,000 average annual large truck miles currently traveled in Washington State.	• The temporary dock, pier and conveyor would be removed and the route restored to its original or improved condition when the project is completed.
• A fatality or injury occurs every 731,545 miles of large truck travel and most fatal crashes involving a large truck occur during the week and during daytime hours (6:00 a.m. to 5:59 p.m.) as stated by the U.S. Dept. of Transportation National Highway Traffic Safety Administration.	• Use of the conveyor system could result in mitigation money for communities along its route.
:onomic loss due to crashes involving large trucks could total ⊔ρ to $168 million. An estimated 18 additional fatalities or serious injuries could occur if large trucks supply fill during the third runway project.	

rated the system the highest if it were already permitted. We are now in the permitting process.

For all of these reasons, but primarily because it is faster, cheaper, and less environmentally damaging, we believe the conveyer belt alternative should be given serious consideration in your review of the request by the Port for this permit.

Thank you for the opportunity to comment on this permit application.

Sincerely,

John Taylor

John Taylor

Fill Requirements and Quality of On-Site Materials

The EIS indicates approximately 1,200,000 truck loads of fill will be needed to complete all of the improvements in the Master Plan Update. To account for peaking of truck traffic, the EIS estimates the truck traffic rates to be from 66 to 109 truck trips per hour, each direction. The EIS also states that the nature of the on-site fill materials are water sensitive. (See attached EIS page IV.23-2 and Table IV.23-1) The use of water sensitive materials in the Pacific Northwest means a longer construction period and normally higher construction costs.

Conveyer Belt as Advantageous Alternative

The EIS and SEIS present the conveyer as an alternative method to the import of off-site material by trucks, and state that the advantage of this proposal is that it would eliminate all off-site material truck transport. It could also eliminate the need for use of the on-site material sources. (See EIS page IV.23-4 and SEIS page 5-4-6)

Air Quality

Both the EIS and the SEIS analyzed the construction impacts on air quality, and concluded that the high volume of truck activity will generate considerable fugitive dust emissions. Without mitigation or the use of control measures, the particulate emissions along the construction haul routes will exceed air quality standards. Also, the use of on-site construction haul routes without the application of control measures would result in emissions well above the air quality standards. (See EIS pages IV.23-8 & 9, and SEIS pages 5-4-16 with attached Appendix B)

Road Damage and Congestion

The HOK study, to a greater extent than the EIS and SEIS, analyzed the impact of the convoys of haul trucks on the local street systems of the surrounding cities. The study states that the only highway type capable of handling this volume of heavy trucks is the freeway system. The HOK Study also addresses the conveyer belt as an alternative method to haul fill material to the site, and states that the conveyer system would avoid the physical damage and congestion on the highway system, and would complete the haul in substantially less time than the trucking alternative. The Study also estimates the mitigation needed to address the congestion and physical damage to the road systems to be approximately $304 million (See attached HOK Study pages 3-7, 9 & 10, pages 8-18, 19 & 20, and page 10-08) If applied only to the estimated 14 million cubic yards of fill needed for the just the 3rd runway, this mitigation equates to over $20 per cubic yard.

Safety - Traffic Accidents; Injuries and Fatalities

Based on the amount of fill needed for just the runway portion of the overall airport improvements, estimated at 14 million cubic yards, or approximately 27 million tons, we estimate it would take approximately 815,000 truckloads to deliver the fill. At an average round trip of 18 miles, this results in total heavy truck miles of 14,670,000. In addition to the millions of gallons of fuel consumed and related diesel engine emissions, there will be accidents and injuries resulting from the additional truck traffic. Based on information compiled by the Washington State Department of Transportation, there were 574 fatalities and 54,782 injuries from traffic collisions in 1994. 53 of the fatalities involved collisions with large trucks. Statistically, a fatality or injury occurs every 731,545 miles of large truck travel. At this frequency, we would expect another 18 to 20 injuries or deaths as a result of hauling the fill materials by truck. The use of a conveyer belt system would eliminate these potential injuries and deaths.

Conveyer System is More Economical

Using a temporary conveyor system installation for the total fill requirements of the third runway project will conserve existing wetlands, not put the water supply in danger and will not permanently alter the aesthetics of the project area. In addition, the economics of using a temporary conveyor system for the total project are superior to the alternative proposed by the Port of Seattle. The Port of Seattle's plan to take increments of fill from various sources and then match these increments with the most opportune and expedient transportation method at hand is economically defensible only for a small amount of fill. Since a conveyor system is capital intensive, it becomes more economically efficient as more tonnage is moved. At 27 million tons the cost of conveying the fill would be far less than trucking. Part of these savings would economically compensate for replacing the 8 million cubic yards of no-cost borrow material on Port of Seattle property with higher quality, all-weather structural fill material available from areas that are environmentally suited as fill material sources.

Alternative Delivery Method Study

In November of 1996, the Port of Seattle completed a study to identify and evaluate feasible methods of transporting earth fill material for the 3rd runway project (the HNTB Study.) While the whole study may be useful in your analysis, I have enclosed selected pages from the study, to include the Introduction page, the Summary Evaluation (pages ES-6,7 & 8), and the Summary (pages 39 – 42.) If after your review you would like to have a copy of the whole study, we would be pleased to obtain a copy for you.

The study concludes that the conveyer belt system is one of the highest rated alternatives, is technically feasible and very competitive economically, and has the capability of delivering the fill in a much faster amount of time. The study would have

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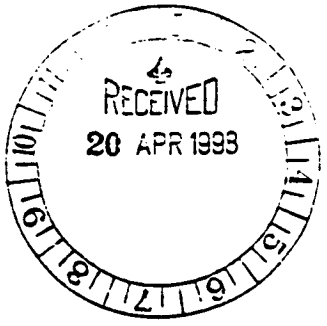

COMMENTS TO U.S. ARMY CORPS OF ENGINEERS ON THE PERMIT APPLICATION OF THE PORT OF SEATTLE TO FILL OR DISPLACE WETLANDS IN CONNECTION WITH CONSTRUCTION OF THE 3RD RUNWAY AT SEATTLE TACOMA INTERNATIONAL AIRPORT

April 20, 1998

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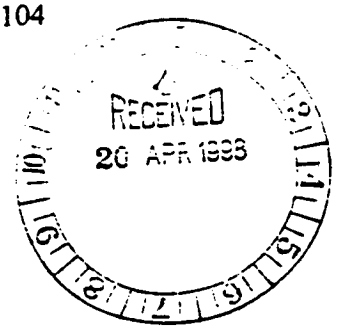

April 20, 1998

Mr. Jonathan R. Freedman
Project Manager
U.S. Army Corps of Engineers
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

Re: Permit for the Port of Seattle to Fill Wetlands for 3rd Runway Project

Dear Mr. Freedman:

The Port of Seattle has requested a permit to use a borrow site and fill wetlands on Port property in connection with construction of the airport improvements at Sea-Tac Airport. There is a practical alternative for obtaining and delivery of the required fill materials that will not disrupt the wetlands and water recharge areas, and has far less overall environmental impact. This would be by means of a modern and well-designed conveyer belt. I am pleased to submit the following comments and supportive materials.

As an alternative to the destruction of the wetlands and use of surrounding material in its runway construction, the Port could import high quality fill material by conveyer belt with little or no environmental impact. Trucks have been the traditional method of delivery for large construction projects, but for this project will have a significant impact on the environment. The conveyer belt option would be faster, more efficient and more cost effective. It would also have much less environmental impact, particularly with respect to noise, traffic congestion, pollution and fuel consumption. To evaluate the environmental impact of the conveyer belt system, the City of Des Moines has initiated an environmental impact review in connection with our permitting process. The draft environmental impact statement from that review should be available in July of this year.

A number of studies have been conducted to address the impact of the 3rd runway and its construction, to include the Environmental Impact Statement (EIS) and Supplemental Environmental Impact Statement (SEIS) prepared for the FAA, the Sea-Tac International Airport Impact Mitigation Study prepared by Hellmuth, Obata + Kassabaum, Inc. for five of the surrounding cities and the Highline School District, under a grant from the State of Washington (the HOK Study), and the Fill Material Alternative Delivery Method Study for the Third Runway prepared for the Port by HNTB. Inc. (HNTB Study.) I have enclosed copies of the relevant pages of these documents as the source material for the following comments.

Henry R. Hopkins, P.E.
3720 Serene Way
Lynnwood, WA 98037
Phone: 425-743-4245 Fax 435-743-0328

Economic Impact–The analysis or assessment of economic impacts should include a comparison of cost of repairing highways due to truck traffic and rerouting of other traffic caused by truck traffic on main routes. The HOK study (Section 10 Summary of Findings, page 10-8) estimates repairs of "physical damage" to highways and roads to amount to **$186 million** and **$117 million** for congestion. The total of **$303 million** for truck impacts would equal **$21.64 per cubic yard** for material hauled by trucks. This amount would be saved by the conveyor alternative.

There are other significant economic impacts related to length of construction time. Schedules for all passengers traveling to and from the airport area and South King County will include significant dead time allowances for truck delays.

Soils–The glacial soils located on the Port's "on-site borrow" sites identified in the EIS and SEIS (Chapter IV, 19) are not "all weather" material. These soils cannot be placed into embankments during wet weather conditions without use of well-drained material. The sandwich method uses intermittent layers of sandy gravel with material having more than 5% passing 200 Sieve. These factors are important because the EIS and SEIS outline a schedule which is directly increasing or decreasing impacts with time of construction of the runway embankments. There is a section of the EIS and SEIS which describes Geo Technical comments on the type of materials and their respective sensitivity to seismic forces. All weather material carries a bonus of more seismic stability than materials from some of these borrow sites.

My company has completed numerous projects with these types of soils in this area. We had a project in Bellingham, WA which recorded less than 60 working days for the year, and another on I-90 which had only 74 working days for a year. The conveyor allows all weather work.

The conveyor would be more economical and able to work all weather conditions, except for blizzards. This alternative would use all weather material.

Cumulative Impacts– The Conveyor Alternative will provide safety, less traffic, far less air pollution, more economic benefits and less noise to the general community. If the Port of Seattle would use the conveyor for the entire project, it is possible for other benefits such as a park for Des Moines to be realized.

Hopefully, the analysis by the Corps of Engineers will take into account all of the items mentioned herein and suggest that the project be completed as a whole.

Thank you for the opportunity to comment.

Very truly yours,

Henry Hopkins

Henry Hopkins, P.E.

Table 2
Economic Feasibility

	DELIVERY METHOD	CORRIDOR 1 Des Moines Creek	CORRIDOR 2 SR 509				CORRIDOR 3 SR 516		TRUCKING ONLY
		Barge-Conveyor	*Barge-Conveyor*	*Barge-Truck*	*Rail-Conveyor*	*Rail-Truck*	*Rail-Conveyor*	*Rail-Truck*	*Truck (Round Trip)*
	Mode Transfer	$ 2,000,000	$ 2,000,000	$ 2,000,000					
BARGE	Transport Cost	$ 7,700,000 to $19,400,000	$ 7,700,000 to $19,400,000	$ 7,700,000 to $19,400,000					
	Mode Transfer	$ 1,500,000	$ 1,500,000	$1,500,000					
RAIL	Capital Investment				$ 4,500,000	$ 4,500,000	$ 4,500,000	$ 4,500,000	
	Transport Cost				$62,000,000	$62,000,000	$62,000,000	$62,000,000	
	Mode Transfer				$ 1,500,000		$ 1,500,000		
CONVEYOR	Capital Investment	$ 7,400,000	$21,100,000		$21,100,000		$10,500,000		
	Transport Cost	$ 9,300,000	$27,000,000		$27,000,000		$23,600,000		
	Mode Transfer	$ 2,500,000	$ 2,500,000		$ 2,500,000	$ 2,500,000	$ 2,500,000	$ 2,500,000	
TRUCK	Transport Cost			$20,000,000		$20,000,000		$10,000,000	$ 9,900,000 to $49,500,000 (8 to 40 miles)
	TOTAL	$30,400,000 to $42,100,000	$61,800,000 to $73,500,000	$31,200,000 to $42,900,000	$118,600,000	$89,000,000	$104,600,000	$79,000,000	$ 9,900,000 to $49,500,000
	Average Cu. Yd.	$3.40 to $4.70	$6.90 to $8.20	$3.50 to $4.80	$13.20	$9.90	$11.60	$8.80	$1.10 to $5.50

NOTES: Assume 9 million cubic yards.
Costs do not include engineering or permitting costs.

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requirements of the Master Plan Update, it is also possible that new material sites can be economically developed and permitted. Subject to the appropriate guidelines included in a Construction and Earthwork Management Plan, a selection will be made among the material sites based on availability, costs, mitigation requirements for the use of those material sites, and other considerations.

2. Fill may be transported by rail or barge to locations near to the Airport and then trucked or conveyed by belt systems to the airport construction sites. To present a worst case assessment, this EIS assumes that fill will be most likely transported by truck, but considers a conveyor belt system and rail as potential alternatives that may be considered by construction contractors.

3. Material transported by trucks will use freeway, highway, arterial class roadways, designated truck routes, permitted local streets, or Port properties, until reaching the on-airport haul routes.

The compacted in-place fill requirements were increased by 15 percent to account for shrinkage during placement of transported fill material. **Appendix J** contains an expanded construction impact evaluation.

Table IV.23-1 shows fill requirements that will exist for the Master Plan Update alternatives. Based on an assumed average truck capacity of 22 cubic yards per truck, about 1,200,000 truck loads of fill would be needed to complete all of the improvements included in the Master Plan Update, or about 1,074,500 for the fill requirements between 1996 and the year 2000. The 1996-2000 transport is the worst case scenario and is the analysis event for the EIS.

For the assumed minimum (Option 1) and maximum (Option 2) fill amounts available on-site, the average number of trucks required to haul the required pre-2000 material would be 73 and 44 trucks respectively per hour, per direction. As described in **Appendix J**, for analysis purposes, a factor of 1.5 was assumed to account for peaking of truck traffic, resulting in off-site truck traffic rates of 109 and 66 trucks per hour, per direction. On-site truck traffic necessary to haul the 8.0 MCY of material would average 36 trucks per hour, per direction or adjusted for peaking to 54 trucks per hour, per direction. Construction vehicles, such as scrapers, are anticipated for use in moving the common excavation material, with no trips on public roads.

(B) SURFACE TRANSPORTATION

The following section summarizes the construction related surface transportation impacts. Off airport hauling would affect the level of service on freeways, highways, arterials and permitted local streets used for hauling. The degradation of service levels would be significant if hauling occurs in congested areas during peak travel times. However, these impacts would be temporary and will be mitigated as a part of actions to be included in the Construction and Earthwork Management Plan and similar mitigation measures.

(1) On-Site Source Transportation

Source locations: Due to wetland impacts or cost to excavate, five of the eight on-airport sites identified by the Preliminary Engineering Study would likely be used to extract fill. The range of fill volumes available from these sites is described in Chapter IV, Section 19 "Earth Impacts". The location of those sources and potential haul routes are shown in **Exhibit IV.23-1.**

On-site material Sites #1-4 are located south of South 188th and north of South 216th Streets. All of Site #2 and portions of #1 and #3 lie within the City of Des Moines. Portions of #1 and #3, and all of Sites #4 and #5 lie within the City of SeaTac.

This analysis assumes a constant hourly rate of truck trips, and accounted for the ability to construct during poor weather. A construction haul period of 210 days per year was assumed to account for the water sensitive nature of the on-site material source soils.

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TABLE IV.23-1

Seattle-Tacoma International Airport
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CONSTRUCTION FILL REQUIREMENTS

Fill Available

On-Site Borrow Source	Available On-Site Fill (Million Cubic Yards) Minimum	Maximum
Area 1	0.00	0.50
Area 2	0.00	0.65
Area 3	0.00	2.90
Area 4	0.00	2.20
Area 5	0.00	1.75
Area 8	0.00	0.00
Subtotal	0.00	8.00
Common Excavation	2.90	3.10
Total On-Site Fill Available	2.90	11.10

Fill Requirements

Master Plan Update Construction Activity	Total Fill Requirements (Million Cubic Yards) In-Place	Adjusted
8,500 Foot New Parallel Runway	17.25	19.84
RSA Improvements	0.98	1.13
Relocation of S. 154th Street	0.13	0.14
SASA Facilities	2.20	2.53
Subtotal	20.56	23.64
Runway 34R Extension	2.40	2.76
Total Fill Required	22.96	26.40

Exhibit IV.23-1 shows the on-site borrow sources, while Exhibit IV.23-2 shows the possible off-site sources.

Source: INCA Engineers, December 1995.

require additional permits.[1/] Most likely a combination of sites would be required to comply with hours of operation and future truck route conditions. For these off-site sources, the expected haul routes are categorized as arterial or highway roads, in 'fair' or better pavement conditions. No safety concerns are anticipated due to sight distance or roadway configuration. **Table IV.23-3** summarizes the conditions along the off-site haul routes.

Haul conveyance mechanism: Similar to the on-site source conveyance, trucks are expected to be the likely mode of transport. Other potential ways of providing material to the construction site involve barges to the Duwamish area from sites #15 and the King County Parks site, and/or rail supplied material from site #9 to either the Duwamish or Kent Valley areas. Material barged or rail transported to the Duwamish could be trucked to the Airport via SR 509 during any time of the day. Material transported by rail to the Kent Valley area could be trucked to the site, but due to roadway congestion in this area, trucking may be limited to evening and night periods. Required environmental review would be conducted and compliance with permitting requirements would occur prior to development of a rail station or rail spur for this rail alternative.

An alternative to the import of off-site material by trucks has been suggested. This alternative would use a conveyor belt system to transport material barged or transported by rail to a site in the general vicinity of the Airport. Based on one proponents suggestion, several conveyance routes were reviewed. These include: conveyance south from the Duwamish industrial area along SR 509, conveyance from the Kent valley west along Orilla Road, and conveyance from Puget Sound, along the Des Moines Creek. Based on the transport distances (greater than 2 miles), only the Des Moines Creek route appears financially viable.

The Des Moines Creek route is in the initial stages of development by a private proponent. It is anticipated to require an in-water of Puget Sound off-load and docking station near the Des Moines Beach Park, and installation of an above-ground conveyor belt system approximately two miles along the Des Moines Creek Park via a Midway Sewer District easement to the construction site. The advantages of this proposal is that it has been used effectively on other large scale projects and it would eliminate all off-site material truck transport. Due to the size and quality of the material sites that could barge material, this alternative could also eliminate the need for use of the on-site material sources. The conveyor belt proponent has obtained an agreement with the Sewer District for the use of the easement, but has not obtained other permits or environmental review. Thus, this EIS assumes transport of material by truck. Required environmental review would be conducted and compliance with applicable permitting requirements would occur prior to development of the conveyor system and any associated facilities.

Haul routes and Service Levels: Contractor use of off-site material sites west of I-5 would require the use of I-5 or I-405 to reach SR 518 and SR 509 to access the Airport construction site. Use of material sources located on Maury Island, Port Gamble, or the Dupont area are expected to be barged into the Duwamish and trucked using SR 509 and SR 518 to access the Airport construction site. Level of service analysis throughout the day for year 2000 volumes at key locations with conditions expected to cause congestion impacts due to increased volumes of heavy vehicles were performed. Year 2000 traffic was chosen as a worst case event, even though most construction haul activities are to occur before then.

Results of the level of service analysis are summarized in **Table IV.23-4.** This analysis indicates that I-5 at the SR 518/I-405 interchange area would function at LOS F during the PM peak (3:00 to 7:00 PM) due to regional traffic levels without the truck traffic associated with the Master Plan Update construction activities. Predicted maximum off-site peaking truck volumes of 109 trucks per hour, per direction would worsen somewhat and would also cause deterioration to LOS F during Midday (9:00 AM to 3:00 PM) traffic flows. In addition, I-405 is also expected to be at LOS F without airport construction truck traffic during AM (6:00 to 9:00 AM) and PM peak periods. Increased

[1/] Currently, the Maury Island King County Park site is not permitted, although one would be anticipated with the grading associated with the King County project. The other site has been exhausted of fill material under the present permit requirements. Weyerhaeuser is presently working with the owner concerning expansion of the fill capability.

While construction related noise would increase by 5 dBA or more above existing or Do-Nothing (a substantial increase), according to Washington State Department of Transportation guidelines, these impacts are not permanent changes in noise levels, and are, thus, exempt from the criterion The construction noise impact exemption, however, does not apply during nighttime hours (10 p.m. to 7 a.m.). As a result, the Port will develop the Construction and Earthwork Management Plan to minimize nighttime noise impacts on noise sensitive facilities adjacent to the haul routes. However, even with noise management actions in use during the nighttime hours, residents west of the proposed runway may experience dump truck related construction noise.

(E) AIR QUALITY

Construction will have a short-term impact on local air quality. Air pollution levels during the construction period would be a consequence of one or more of the following activities:

- Vehicular activity in support of construction;
- Wind erosion of soils;
- The movement of construction vehicles along haul routes;
- Excavation; and
- Cement and aggregate handling.

Air pollution impacts would be most pronounced at the individual construction sites and along the construction haul routes.

The air quality impacts associated with the hauling of construction fill material was evaluated through a separate pollutant dispersion modeling analysis. The construction vehicle dispersion analysis was performed using the CAL3QHC air quality computer model, as described in **Appendix D**. CAL3QHC is a USEPA approved model used to predict pollutant concentrations from motor vehicles. Vehicle emission rates for input into the CAL3QHC model were derived from two other USEPA air quality models, MOBILE5A for carbon monoxide emissions and PART5 for particulate matter.

Particulate matter (PM10) is usually the pollutant of greatest concern related to construction activity. To quantify the effects of dispersing the pollutants within the surrounding environs, receptors were modeled at three meters (12 feet) from the edge of the roadways along each of the proposed haul routes.

The construction haul vehicles are expected to rely primarily on use of heavy duty diesel vehicles capable of carrying up to 100,000 tons of fill material. The analysis considers the peak hour of operation by all motor vehicles, including the haul trucks, that would occur "With Project" along each of the routes in comparison to the Do-Nothing condition.

It should be noted that the methodology used in this analysis relies on the use of modeling default values and input assumptions, as determined in consultation with the Department of Ecology and USEPA. Significant coordination was needed, due to the lack of actual data on particulates for the Region. Accordingly, this application represents true worst case analysis characteristics of a much more arid (dry) environment than is typically experienced in the Puget Sound Region.

(1) Carbon Monoxide Concentrations

The use of diesel haul trucks would not be expected to produce substantial carbon monoxide (CO) emissions. As shown in **Table IV.23-6**, the maximum 1-hour and 8-hour CO concentrations along each of the haul routes would be expected to be well below the CO ambient air quality standards. The "With Project" concentrations would be equal to or slightly above the Do-Nothing condition. Nonetheless, CO concentrations at all receptor locations along the proposed routes would be below the standards. Carbon monoxide concentrations along the proposed unpaved, on-airport road south of the airfield would produce negligible CO emissions off-airport.

(2) PM10 Concentrations

The high volume of construction truck activity would be expected to generate considerable fugitive dust emissions, especially during dry conditions. Nearly all of the particulate matter identified would be created by 'stirring' up of the dust particles already on the roads. This 'entrainment' of dust particles would be created by the mixing of turbulent air currents from construction equipment movement. Without mitigation or the use of control measures, the results would be particulate emissions above the ambient air quality standards along each of the proposed construction haul routes.

Table IV.23-7 presents the maximum 24-hour and annual particulate concentrations along each construction route. As shown, the maximum concentrations would be

considerably greater than the Do-Nothing concentrations, and exceed the standards along each route.

Along Route 1 (SR 509 to South 160th Street - Routes A & B on **Exhibit IV.23-1**), the maximum 24-hour concentrations of PM10 would be 350 ug/m3 as compared to the 150 ug/m3 standard. The maximum annual concentration along Route 1 or 70 ug/m3 would also exceed the annual 50 ug/m3 annual standard. The PM10 concentrations along all other routes would show similar exceedances.

Use of an on-site, unpaved construction haul route could also result in considerable fugitive dust emissions. As shown in **Table IV.23-7**, (construction route "I"), PM10 emissions with use of an unpaved road would result in concentrations well above the standards without the application of control measures.

Therefore, without mitigation, the PM10 concentrations along each of the haul routes would exceed the standards.

(3) **Mitigation Measures**

Control measures for paved roads focus on either preventing material from being deposited on the roads (preventive controls), or removal from the travel lanes of any material that has been deposited (mitigative controls). Preventive measures include policies requiring the covering of loads in truck or "wetting" of material being hauled, cleaning vehicles before they leave a construction site, using 'bump strips' or grates to 'shake' dusk from vehicles, or by paving the construction site access roads nearest to the paved roads.

To minimize the stirring or entrainment of fugitive dust already on the roads, mitigation measures include frequent vacuum sweeping, flushing the roadways with water, or a combination of sweeping and flushing. For example, vacuum sweeping along each route would reduce particulate matter by almost 40 percent. Flushing the roadways with water followed by sweeping could reduce particulates by over 90 percent if performed frequently.

Control measures for unpaved roads will include frequently applying water or chemical stabilizers, paving, and traffic control measures limiting vehicle speeds and traffic volumes during dry periods. These measures could achieve up to 80 percent reduction in fugitive dust during dry periods.

Sweeping, watering and paved construction routes are normal Port construction practices used at Sea-Tac Airport. Thus, construction plans will be developed to include these actions. In addition, the Port will develop an overall fugitive dust control program.

* * *

Heavy construction operations at the borrow and construction sites also results in fugitive dust emissions. In general fugitive dust would be generated by two physical occurrences:

- Pulverization and abrasion of surface materials by application of mechanical force.
- Entrainment of dust particles by the action of turbulent air currents. Airborne dust could be generated independently by wind erosion.

The air pollution impact potential of fugitive dust sources would depend on the quantity and drift potential of the dust injected into the atmosphere. While the climate of the Region results in frequent rain, dry spells can result in the generation of fugitive dust.

To estimate the quantity of fugitive dust that could result from heavy construction operations at the fill borrow sites and on-airport construction activity, emissions factors were obtained from the EPA's *"Compilation of Air Pollutant Emission Factors"*. These factors (11.2 lb. per vehicle mile traveled or 1.2 tons per acre disturbed per construction month) were then applied to the area disturbed and estimated construction duration.

The following fugitive dust emissions were estimated:

Alternative	Total Fugitive Dust Emissions (Tons per year)
Do-Nothing/No-Build	2,904
"With Project" Alternatives	
Max. On-Site Use:	55,970
Min. On-Site Use:	69,840

To minimize the fugitive dust transport, unpaved roads and inactive portions of the construction site will be either watered (achieving a 50 percent reduction in dust) or chemically stabilized (achieving an 80 percent reduction) during dry

TABLE IV.23-7

Seattle-Tacoma International Airport
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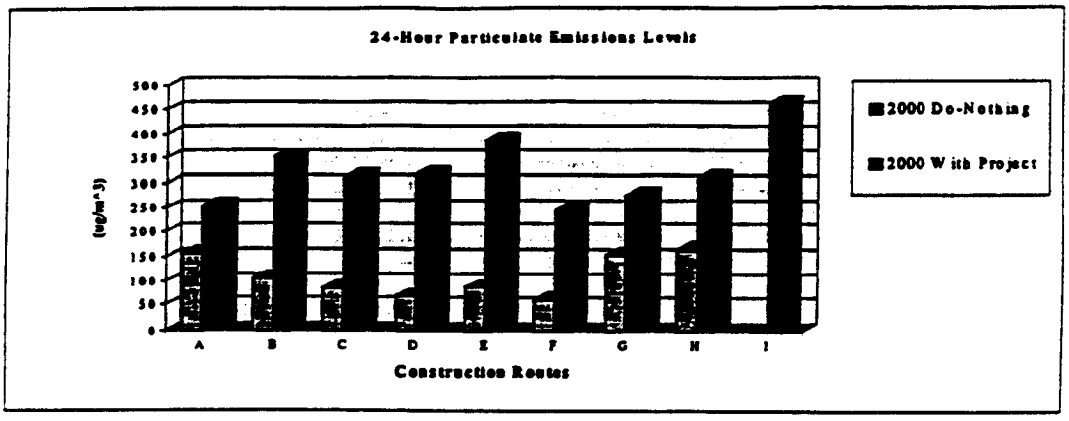
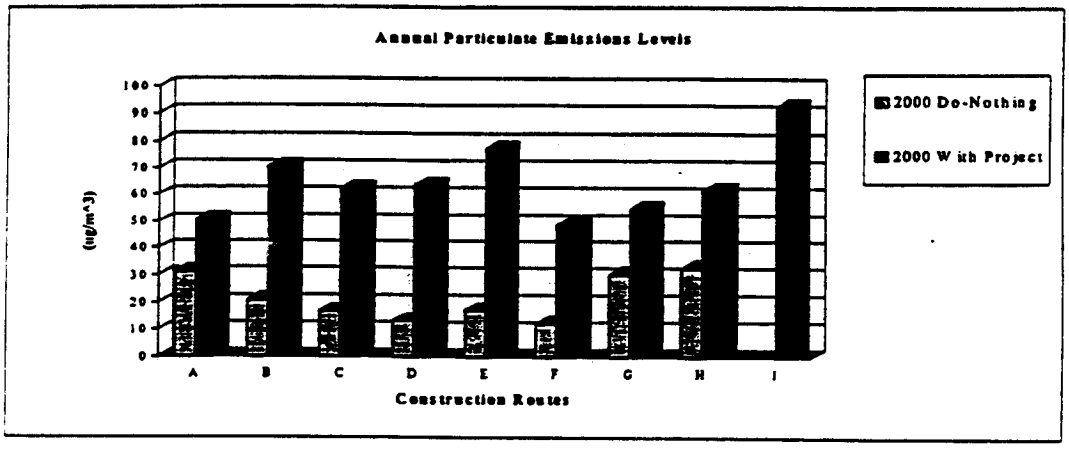
CONSTRUCTION ROUTE EMISSIONS
24 HOUR & ANNUAL PARTICULATES
WITHOUT BACKGROUND LEVEL (µg/m^3)





Note: A = SR509 from SR518 to So. 160th Street
B = So. 160th Street from SR509 to Des Moines Memorial Drive So.
C = Des Moines Memorial Drive So. from So. 160th Street to 8th Avenue So.
D = Des Moines Memorial Drive So. from 8th Avenue So. to 148th Street
E = 154th Street from 24th Avenue So. to 16th Avenue So.
F = 24th Avenue So. from 154th Street to So. 152nd Street
G = Des Moines Memorial Drive So. from So. 200th Street to 188th Street
H = So. 200th Street from Des Moines Memorial Drive So. to 26th Avenue So.
I = Unpaved on-Airport road south of airfield
[Exhibit IV.23-1 illustrates the construction haul routes]

AAQS: 24-Hour Particulates = 150 µg/m^3; Annual Particulates = 50 µg/m^3

1/ Background levels are not included as follows: 24-Hour background=88.µg/m^3; Annual background=33 µg/m^3

Source: Landrum & Brown, Inc., CAL3QHC, December, 1995
h:\eas\012105\calins\construct.doc & construct.xls

SECTION 5-4
CONSTRUCTION IMPACTS

Since publication of the Final EIS, new information has arisen that has lead to possible changes in the construction of the Master Plan Update improvements. Chapter 2 of this Supplemental EIS describes the effects of the new Port forecasts on construction phasing. Other construction related changes include:

- Third parallel runway haul duration - the Final EIS analyzed a 3 year haul, with the runway being available for use in the year 2000. This Supplemental EIS analyzes a 5-year haul, with the runway available for use in late 2004. Under this new construction schedule, the peak of hauling would occur in year 2000, with the haul complete in 2002. The lengthening of the haul duration would likely reduce the number of average daily truck trips;[1]
- Additional haul routes have been identified - the Final EIS examined the primary haul routes that are anticipated to be used. Based on a further examination of barge transfer opportunities and a review of alternative material delivery methods, several additional routes were identified.
- Examination of two temporary interchanges - In addition to the identification of additional haul routes, two temporary, construction-only interchanges were identified: from SR 518 near 20th Avenue South and from SR 509 near South 176th Street.

No changes in the total quantity of fill material have been identified since publication of the Final EIS.

At this time, detailed design and construction plans have not been prepared. Therefore, it is not possible to identify the specific types of construction equipment and frequency of usage that could occur with construction of the proposed Master Plan Update improvements. However, based on a refined examination of possible equipment, additional analysis of possible construction impacts has been prepared. This section identifies a range of construction impacts, assuming two alternative scenarios:

1. Option 1: minimum excavation from on-site sources, and
2. Option 2: maximum excavation from on-site sources.

To implement the proposed new parallel runway and other Master Plan Update improvements, one or more permitted material site(s) off of Port owned land may be used to supply the required fill (or serve as transfer sites from barge to truck). Permitted material sites have or will be subjected to environmental review as part of the appropriate regulatory process that granted the permits and which established conditions of operations. Several municipalities have recently adopted truck route ordinances that may pose additional conditions on operations from individual

[1] The February 1996 Final EIS examined 109 one-way hourly truck trips based on a 3-year haul. This Supplemental EIS, unless otherwise noted, examines 66 one-way hourly truck trips based on a 5-year haul. These truck levels represent an average hourly truck level over the duration of the haul. Therefore, conditions during any one day could incur higher or lower truck trip levels.

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material sites. The process of removing fill material from the source location and transporting it to the fill site must comply with valid and legally enforceable local permits, operating conditions, legal load limits, and restoration associated with the source site(s) and haul routes. This is standard procedure for construction projects in the Puget Sound Region.

Provisions of FAA Advisory Circular 150/5370-10 "Standards for Specifying Construction of Airports", would be incorporated into construction specifications.

(A) METHODOLOGY

A number of assumptions were made concerning the construction of the Master Plan Update alternatives:

- Schedule:
  1. Activities involving the hauling of embankment fill material for the construction of the proposed new parallel runway, the expansion of Runway Safety Areas, and the haul of fill material for the South Aviation Support area are anticipated to occur over a five year period between 1997 and the year 2002. The runway would be available for use in late 2004.
  2. Year 2000 would represent the peak year of haul activity.
  3. Transport of fill material from off-site sources could occur as much as 270 days per year and 16 hours per day. Transport of fill material from on-site sources could occur as much as 210 days per year and 16 hours per day. It is anticipated that during peak periods, haul could occur more than 16 hours a day.
  4. While the analysis presented in this study reflects an average annual haul over the 5 year period, peak conditions with greater truck levels could occur. For instance, during good summer weather periods, truck haul would be anticipated to be as high as 109 one-way truck trips. During winter periods, of cold or wet weather, truck trips could be expected to be substantially reduced.

- On-Site Borrow:
  1. The Final EIS, and this Supplemental EIS, addresses both the likely minimum and the likely maximum use of on-site fill (Option 1 and Option 2 defined previously).
  2. The Port will explore non-trucking alternatives for material extracted from Port land. Alternatives such as conveyer belts could be used to move fill within Port-owned land. To present a worst case assessment, this EIS assumes that on-site fill is transported to the embankment area by truck. Impacts associated with alternative on-site movement of material would be expected to lessen the environmental impacts of conventional truck haul.
  3. The analysis prepared for the Supplemental EIS reflect the average on-site haul over the construction period. It is anticipated that the time to excavate any individual site could take as little as 4 months to as much as about 38 months.
- Off-Site Borrow:
  1. At this time, it is not possible to determine the exact off-site material sources that will be used. Several permitted sites exist within 20 miles of the Airport, sufficient to supply some or all of the material needed for the Master Plan Update improvements. Given the fill requirements of the Master Plan Update, it is also possible that new material sites could be economically developed and permitted. A selection will be made among the material sites based on availability, costs, mitigation requirements for the use of those material sites, and other considerations.

2. Fill may be transported by rail or barge to locations near to the Airport and then trucked or conveyed by belt systems to the Airport construction sites. To present a worst case assessment, this EIS assumes that fill will be most likely transported by truck (or by barge to a transfer site, where trucks would transport the material the remaining distance).
3. Material transported by truck will use freeway, highway, arterial class roadways, designated truck routes, permitted local streets, or Port properties, until reaching the on-airport haul routes. Include in this analysis is use of existing permitted barge transfer sites where material could be transferred from barge to truck .

Table 5-4-1 shows fill requirements associated with the Master Plan Update improvements. The compacted in-place fill requirements were increased by 15 percent to account for swell/shrinkage during placement of transported fill material. Based on an assumed average capacity of 22 cubic yards per truck, about 1,200,000 truck loads of fill would be needed to complete all of the improvements included in the Master Plan Update. Using the five year construction haul period, the average number of trucks required to haul the required material could range from 44 one-way truck trips to 17 trips per hour, per direction for Option 1 (minimum on-site) and Option 2 (maximum on-site) respectively. A factor of 1.5 was assumed to account for average peaking of truck traffic, resulting in off-site truck traffic rates of 66 and 26 trucks per hour, per direction for Option 1 and 2, respectively. On-site truck traffic necessary to haul material would average 33 trucks per hour, per direction or adjusted for peaking to 50 trucks per hour, per direction. Construction vehicles, such as scrapers or loaders, are anticipated for use in moving the common excavation material, with no trips on public roads.

The following contrast the assumptions of this Supplemental EIS with those of the Final EIS:

	Supplemental EIS		1996 Final EIS	
Haul Duration	5 years		3 years	
Total Fill Required (Million Cubic Yards)	23.64		23.64	
On-Site/Off-Site Fill Sources	Option 1	Option 2	Option 1	Option 2
On-Site (Million Cubic Yards)	0	12.35	0	8.0
Off-Site (Million Cubic Yards)	20.74	8.19	20.74	12.54
Common (Million Cubic Yards)[1]	2.90	3.10	2.90	3.10
Average Hr Traffic/Peaking	Option 1	Option 2	Option 1	Option 2
On-Site truck traffic (1 direction)	0	50	0	33
Off-Site truck traffic (1 direction)	66	26	109	66

Option 1= Minimum use of on-site material Option 2= Maximum use of on-site material

As is shown above, and in **Table 5-4-1**, this Supplemental EIS examines possible use of a greater quantity of fill from on-site sources. This Supplemental EIS Option 2 (maximum use of on site sources) evaluated a greater quantity from On-Site Borrow Source #1 relative to the Final EIS, the same as the Final EIS for On-Site Sources #2 through #4, and no material from On-Site Source #5. The revision to On-Site Source #1 reflects the quantity identified by the Preliminary Engineering Study. On-Site Source #5 will not be used to provide material due to the potential operational costs associated with excavation. The net result is that the Supplemental EIS

[1] Material moved from one portion of the construction site to another location in the site.

examines a greater quantity for Option 2 for on-site sources (12.35 MCY versus the Final EIS evaluation of 8.0 MCY).

Of the on-site options, Option 1 would result in the greatest amount of off-airport truck traffic. For Option 1, the Final EIS examined 109 hourly truck trips on all roads, whereas with the new construction schedule and fill source assumption, the average truck trips could be lessened. Therefore, the analysis described in the Supplemental EIS reflects a lower, more realistic level of truck travel on the arterials in the airport area (with 66 on-way truck trips per average hour). With the exception of International Blvd.(SR99), the off-airport site haul routes converge on three roads (I-5, SR 509, SR 518). For these three roads, the analysis relies on the evaluation prepared for the Final EIS with the higher truck trips, which under the longer construction haul period would reflect peak construction conditions on these roads.

(B) SURFACE TRANSPORTATION

The following section summarizes construction related surface transportation impacts. Off airport hauling could affect the level of service on freeways, highways, arterials, and permitted local streets used for hauling. The degradation of service levels would be significant if hauling occurs in congested areas during peak travel times. However, these impacts would be temporary and would be mitigated as a part of actions to be included in the Construction and Earthwork Management Plan and similar mitigation measures. For the purpose of the construction surface transportation analysis, a significant impact was found if the construction activity would create LOS F (or on arterials LOS E or LOS F) or worsen an existing LOS F intersection.

(1) On-Site Source Transportation

Source Locations: Due to wetland impacts, type of material, and operational costs, four of the eight on-airport sites identified by the Preliminary Engineering Study would likely be used to extract fill (Source locations #1 through 4). The location of those sources and potential haul routes are shown in **Exhibit 5-4-1**.

On-site Sources #1 through 4 are located south of South 188th Street and north of South 216th Street. All of Site #2 and portions of #1 and #3 lie within the City of Des Moines. Portions of #1 and #3, and all of Sites #4 and #5 lie within the City of SeaTac.

This analysis assumes a constant hourly rate of truck trips, and accounted for the ability to construct during poor weather. A construction haul period of 210 days per year was assumed to account for the water sensitive nature of the on-site material source soils.

Haul Conveyance Mechanism: As was noted earlier, several means exist for the transport of fill. While trucks are anticipated to be used, contractors may bid use of conveyor systems for the on-site sources. The Final EIS, and this Supplemental EIS, presents a worst case evaluation by assuming truck modes. Use of conveyors would reduce or eliminate truck trips.

Haul Routes and Service Levels: Transport of the material from the southern on-site material sources would most likely use on-site haul routes constructed within or adjacent to the on-site sources to reach South 200th Street, whereupon the trucks would either access directly into the area known as SASA or to the on-airport roadway system. Construction activity could cross South 188th Street via the runway bridge or an at-grade flagged crossing (which would not be used during peak traffic hours). Because off-site routes could be used, the EIS assessed their use.

Construction trucks from On-Site Sources #1 through 4 could use South 200th Street to access Des Moines Memorial Drive and Starling Drive at the intersection with South 188th Street. Both South 200th Street and Des Moines Memorial Drive in this area are designated truck routes. As residences exist along both South 200th Street and Des Moines Memorial Drive, travel conditions were examined along these routes. This analysis showed that entering sight distance, roadway width, and shoulder conditions are adequate for safe truck traffic along these roadways. Through the year 2000, all intersections along this alternative construction route are expected to operate at LOS C or better. The use of both South 200th Street and Des Moines Memorial Way may require rehabilitation of the pavement at the end of the construction period.

On-Site Source #2 is anticipated to be connected to Site #1 via a constructed east-west haul route, and then use the on-site haul route through Site #1 to South 200th Street. This route would roughly parallel South 216th Street, traversing the existing WsDOT SR 509 Extension right-of-way. In the event that this haul route could not be constructed, the Port could seek permits from the City of Des Moines for the use of South 216th Street as an alternative route, between Sites #1 and #2.

As was noted earlier, no material is anticipated to be excavated from On-Site Source #5 or #8.

(2) Off-Site Source Transportation

As noted earlier, the amount of truck trips that would occur would depend on the quantity of soil obtained on-site versus off-site, as well as the source of material, its quality, and weather conditions. Using the new construction timetable, Option 1 (minimum on-site) versus Option 2 (maximum on-site) off-site truck trips necessary to transport required import material could range from 66 to 26 trucks per hour, per direction respectively, adjusted for peaking conditions. As was noted earlier, the evaluation prepared for this Supplemental EIS reflects the use of this lower, average annual haul, while the converge points in the Airport vicinity (I-5, SR 509, and SR 518) reflect the higher 109 one-way trips, reflecting the greater possibility of peak traffic occurring on these roadways.

Source Locations: Eighteen (18) off-site material source locations were identified in the Final EIS. Potential haul routes to access those sites are depicted in **Exhibit 5-4-2**. Based on a further review of the off-site sources, the truck haul would most likely focus on Off-Site Sources 4 (SeaTac-Kent-Tukwila), 7 (Auburn), 9 (Maltby), 11 (Black Diamond), 11A (Black Diamond), 12 (Covington/Kent), 13 (North Bend), 15 (Maury Island), and a potential future site at the Maury Island King County Park (15A) due to the quantity of material these sites can provide, and the condition of the roadway access to these sites. **Table 5-4-2** lists the following haul route characteristics for these off-site locations: roadway jurisdiction; roadway classification; number of lanes; current pavement condition; speed limit along route; and existing average daily traffic volumes.

Most of the probable off-site material locations are currently permitted. Sites 11A, 13, and the Maury Island King County Park site could require additional permits.[y] Most likely a combination of sites would be required to comply with hours of operation and future truck route conditions. For these off-site sources, the expected haul routes are arterial or highway roads, in 'fair' or better pavement conditions. No safety concerns are anticipated due to sight distance or roadway configuration. **Table 5-4-3** summarizes the conditions along the off-site haul routes, and Final EIS evaluations of potential use of the off-site material sources.

[y] Currently, the Maury Island King County Park site is not permitted, although one would be anticipated with the grading associated with the King County project. The other Maury Island site has been exhausted of fill material under the present permit requirements. Weyerhaeuser is presently working with the owner concerning expansion of the fill capability.

AR 036538

April 9, 1998

U.S. Army Corps of Engineers
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255
Attn: Jonathan Freedman, Project Manager

Comment for Public Hearing April 9, 1998, **Reference 96-4-02325**

I respectfully request the Corps of Engineers deny this permit application until the applicant, The Port of Seattle, provide acceptable alternatives analysis, **particularly in light of the fact that this permit has a seven year life!**

1 The Corps denied a 404 permit for a landfill in Pierce County due to unacceptable wetlands impacts and the availability of other solid waster disposal alternatives. The Corps recently criticized the alternatives analysis conducted for the Washington State Department of Corrections facility in Grays Harbor. The Emerald Downs Racetrack in Kent was required to perform an exhaustive alternative analysis.

There are alternatives to the work proposed by the applicant, and they were not made part of the previously environment impact statement (EIS). Furthermore,

2 subsequent to the release of the final EIS in May 1997, the National Marine Fisheries Service has listed numerous Puget Sound salmon runs as being endangered.

3 Why would you not include the new data regarding damage done to the watershed from the North Parking Lot construction? This watershed is an intricate ecosystem, not individual acres separated from each other. So, when there is so much at stake for the Miller Creek salmon and for the health of the watershed, why would the Corps give this applicant preferential treatment?

I am documenting this concern of inconsistency and clear bias in your process to the U.S. Department of Justice and to the Environmental Protection Agency.

Respectfully,

Maria C Little

Maria C. Little
2650 SW 151st Place
Seattle 98166

MEETING, APRIL 9,1998 FOSTER HIGH SCHOOL, Tukwila,WA RE: WETLANDS ISSUE
US ARMY CORP OF
ENGINEERS,(Permit)

2P-16

When I and my family moved to Normandy Park in 1971, the audible evidence of Sea-Tac Airport was minimal. Today, rarely a moment passes, either day or night, that the air-waves fail to reverberate with the polluting noise of landing and departing air-craft, spewing toxic fumes of jet fuel exhaust onto and into our homes.

If that weren't enough, the Third Runway Airport Expansion, already declared "out of control" by the Port Authority itself, threatens to swallow-up residents of the area, water supplies and wetlands alike as it moves ever westward. Not long ago we were promised that there would never be a Third Runway. If the Third Runway is built, might there not be a Fourth and a Fifth built over the false promises of the agency deciding these matters?

Unbeknown to some individuals, the Third Runway construction project seriously threatens a major aquifer, the source of an essential water supply, which lies directly under the proposed Third Runway construction site. Add to this the total and irreversible destruction of a vast wetlands and natural creeks supporting fish and wildlife and species of unique plantlife, if a permit to build the Third Runway is issued.

To allow this to happen flies in the face of what is reasonable and fair and openly violates the mores of conscienable persons whose aim is to preserve our natural habitat, not to destroy it! When viewed in their proper perspective, these issues alone should provide sufficient cause for the U.S. Army Corp of Engineers to deny issuance of a permit to build a Third Runway.

We have been told by the media press that the Third Runway will require the purchase, hauling and dumping of millions of tons of fill dirt to serve as a base for the Third Runway. Add to this the millions of tons of poured concrete for the runway itself. This raises several serious questions, none of which have been answered but which need to be resolved fully before any permits are issued. THEY ARE:

QUESTION: What is the supply source of the fill dirt? What is its quality? Also, what is the cost? It is reasonable to believe that the Port Authority will purchase fill dirt at the cheapest rate available. It is rumored that one source from a nearby island contains toxins such as arsenic. Perhaps there's a contaminated

toxic waste dump that lies undected but needs cleaning up. Would that be used, and who would monitor the quality of the fill dirt. And what if toxic wastes are used, what is to contain them from leaching onto adjoining lands and into the aquifer and the creeks cited earlier?

2

QUESTION: What is the amount of fill dirt required to complete the Third Runway, and related to this is the time element alloted to haul in and dump the fill dirt? To date no specific amount or time has been forthcoming.

3

QUESTION: What if anything do we know about the environmental impact on abutting lands to the project? What do we know about the sub-structurea beneath where the tons and millions of tons of fill and concrete are to be placed? The wetlands area contains a peat bog on which there is a sewer line. Where might the "sink holes" develop as the millions of tons of fill dirt settle over time

4

QUESTION: How can a permit be issued when our very own King County Council has come out against filling in our wetlands?

5

QUESTION: Why does the Seattle Port Authority speak, on the one hand of mitigation while on the other hand favoring the destruction of our wetlands? Mitigation means to "make whole", not destroy. Again, once our wetlands are destroyed, they are gone forever along with the ecology they support - the wild life, the fish, frogs, small animal life, the fertility generated to nourish surrounding areas, the air we breathe and the visual beauty that enriches our landscape. While the FAA may rule that no airport should be within 10,000 feet of lakes, streams and/or wildlife habitats, the administration would do well to understand that our wetlands in question have been here long before Sea Tac Airport was conceived. So, were the FAA to act responsibly in this matter, it would recognize this fact and recommend the reduction in size of the Airport, abatement of the noise pollution, air pollution and the ethylene glycol pollution encroaching our area, together with a long-range solution toward alternative locations for an International Airport that will extend its usefulness well into the next century

6

4-9-1998

TO ARMY CORPS OF ENGINEERS

1 WET LANDS ARE HERE TO STAY, JUST ASK THE LAND DEVELOPERS AND THE WATER UTILITIES. ALL WET LANDS ARE NATUAL FILTERS FOR UNDER GROUND AUQUFIERS. IF WE LET THE PORT (AND THEY HAVE ADMITTED IT) FILL IN THE WETLAND MORE SEDIMENT WITH DE-ICING CHEMICALS, AND HEAVY METALS WILL REACH MILLER AND DES MOINES CREEKS. F.A.A. DAN LEACH AGREED.

1 THE PORT WANTS TO FILL IN 11.42 ACRES OF WET LAND. THE PRESSURE of WEIGHT OF FILL DIRT WILL STOP THE FLOW OF SURFACE WATER FILTERING IN TO THE AUQUFIER. WATER ~~ROWS~~ CHANNELS UNDER GROUND.

3 WE [I] DON'T WANT THE ARMY CORPS OF ENGINEERS TO ISSUE SECTION 404 PERMIT TO THE PORT OF SEATTLE.

4 THE F.A.A. RULES SAY A RUNWAY CANNOT BE BUILT WITH IN 10,000 feet OF WETLANDS.

5 THE PORT IS DESTROYING SOMETHING THEY CAN'T REPLACE. THE WET LANDS.

1. THE PORT DISREGARDS LOCAL REGULATIONS AND PUBLIC INTREST WHICH IS SUFFICIENT TO DENY THIS PERMIT.

THANK YOU

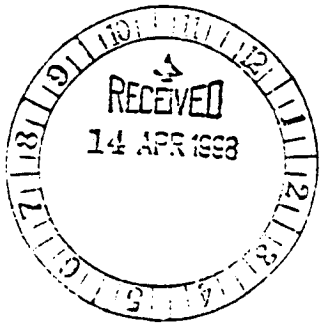
JOHN MATTHEWS
206 824-2682

and beyond.

Ladies and gentlemen, distinguished members of the U.S. Army Corp of Engineers, the questions I have raised and the issues cited, all of which to date are unanswered, renders nonsensical the issuing of any permit since to date no one really knows what the permit allows. It is imperative that all interested parties be apprised of the permits' contents prior to any issuance, and that ample time and effort be expended to study and thoroughly examine all evidence surrounding the issues. Both the immediate and the potential long-range problems associated with this project are serious enough to warrant their resolution in a manner resulting in the least amount of damage and/or suffering both to the environment and to the citizens residing in the area.

JULEEN E. MATTERN
17817 Fifth Avenue S. W.
SEATTLE, WA 98166
(Resident/Normandy Park since 1971)

AR 036543



U.S. Army Corps of Engineers
Regulatory Branch
P O Box 3755
Seattle, Washington 98124-2255
ATTN: Jonathan Freedman, Project Manager

1 Lora Lake is a man-made lake that is spring fed and has an outflow to Miller Creek on the southeast corner. It also serves as a drainage area for a portion of east Burien and west SeaTac. King County developed a collection system for the surface water along Des Moines Memorial Drive, and the runoff water is drained into Lora Lake on the northwest corner. This runoff water is contained in a rock weir to catch the sediment, sand and other contaminants before the water goes into the lake itself. With the removal or filling of Lora Lake this natural filtration process will not occur. This runoff has to go somewhere, as does the spring water. Will this water flood the area in spite of the lake being filled in? Will the area remain a "wetland" with all the water that will be in the soil?

I have been a resident/owner of Lora Lake for 10 years. We were allowed to put copper sulfate in our lake to control algae. In order to do this, we had to have a licensed pesticide applicator and get permission from the Department of Ecology (DOE).

2 In 1992 DOE required soil samples from the lake in the area of pesticide application to test for copper levels. The test determined our copper level was too high so our request to apply chemicals was denied. Any further application meant that levels were in danger of killing fish, eliminating or reducing bottom dwelling creatures, and indirectly affecting ducks and geese that eat these fish and sea life.

Now the Port of Seattle (Port) wants to fill in the lake and mitigate the wetlands to an Auburn location. This seems inconsistent with what the DOE said to us. We couldn't apply chemicals because the fish and marine life would be in danger, yet the Port gets permission to fill in the lake and destroy the fish and marine life. Does the size of the entity asking permission mean that the bigger you are the more you can get away with?

3 The Port asserts that the birds are a safety hazard to jets taking off and landing. In this area there are birds of several types: Ducks, geese, blue herons, eagles, as well as robins, sparrows, starlings, etc. Filling in Lora Lake will not rid the area of these birds. On Port property further upstream on Miller Creek is a swampy area where the ducks and geese can and do nest. The eagles and herons nest in the tall trees on Port property. Where there are trees

there will be birds. Mitigation will not move these birds. The only way to rid the area of birds is to destroy the birds. How can DOE justify the killing of the birds and other wildlife. especially the eagles and herons? How many bird-damage incidents have occurred here? How many have occurred near airports with similar surroundings? Maybe the Port should reconsider its request for a third runway in this area if the issue of birds and safety is so strong. 3

Wetlands are a limited resource. DOE and EPA were created to help protect our environment including wetlands. We may be able to create new land area that has water and animal life inhabiting the new area. But if we do so while we eliminate other areas. we have gained nothing at the expense of lost lives of the wildlife in area destroyed. Lora Lake and the surrounding wetlands should be preserved for the sake of the environment. the fish. the marine life. the birds. and least of all for man to enjoy and appreciate. 4

Respectfully submitted.

Sherrill Miller 4/9/98

Sherrill Miller
15010 Des Moines Memorial Drive
SeaTac. Washington 98148-1122

U.S. Army Corps of Engineers
Seattle District, Regulatory Branch
Post Office Box 3755
Seattle, Washington 98124-2255

2P-19

April 4, 1998

The U.S. Corps of Engineers should not issue a Section 404 permit to the Port of Seattle for proposed construction at Sea-Tac Airport.

The State Dept. of Ecology should not issue a Washington State Water Quality certification to the Port of Seattle.

1 Local laws prohibit filling in of wetlands without replacement in the same watershed.

When we first moved to the Highline area thirty-five years ago, people and nature lived fairly harmoniously together. I remember watching a family of ducks waddling from a lake above us down to Puget Sound, across roads, past homes where people were holding their dogs for the occasion. The mother duck started with nine ducklings and almost all of them made it to saltwater.

Nowadays we see far fewer ducks in the air and on the water, fewer foxes on land, fewer fish in the streams. Part of this loss is due to more people in the area, but much is also because of the destruction of wetlands.

The Port of Seattle's airport expansion project will further degrade our area if this Section 404 permit application is granted. We can look forward to the prospect of living in an asphalt desert, a jet ghetto far worse than that in Los Angeles today.

Everyone who lives in Seattle and loves this city should be up in arms, not just those of us living south of Seattle. Unfortunately, powerful forces including the city's two major newspapers fail to inform citizens in Greenlake, Magnolia, West Seattle, Queen Anne, of what it will mean to the entire city for airport expansion to occur in such a heavily-populated area.

2 The decision of the Port of Seattle to give our wetlands to Auburn is a political decision and completely unfair to the Highline area people. We have aquifers that need to be recharged, surface drainage that needs to be purified, flooding that needs to controlled by means of wetlands. Wetlands destroyed are gone forever. Even replacement in the same watershed is a chancy business as any environmental scientist can tell you, but it should at least be considered.

3 Filling in 11.42 acres of wetlands, plus filling and relocating long stretches of Miller and DesMoines Creeks and their subsidiaries leaves little chance for endangered salmon and other aquatic life to survive. Piling 23 million or more cubic yards of dirt onto our fragile ecosystem is contrary to any concept of environmental justice or fairness.

We believe that our governmental agencies should be supporting healthy ecosystems, not just for plants and animals, but also for the quality of people's lives.

Molly Nordhaus

M. C. Nordhaus
11974 Marine View Dr. SW
Seattle, WA 98146
(206) 243-1338

19635 Marine View Drive SW
Seattle. WA 98166

April 9. 1998

Mr. Jonathan Freedman
Regulatory Branch
Post Office Box 3755
Seattle. WA 98124-2255

RE: Port of Seattle. 96-4-02325

Dear Mr. Freedman:

As I wrote to you on January 16, 1998, I am opposed to the permitting of the above referenced proposal. My opposition is based upon the following issues and information:

1

1. Out of Basin Mitigation. I am opposed to mitigating the wetland impacts out of basin. Out of basin mitigation is not in the interest of the people who live within the Miller and Des Moines Creek Watersheds. The impacts of wetland fill in the Miller Creek Watershed need to mitigated within the Miller Creek Watershed. The impacts of wetland fill in the Des Moines Creek Watershed need to mitigated within the Des Moines Creek Watershed. If mitigation cannot be accomplished within the watersheds where the wetland fill is proposed, then the proposal must be denied. In-basin wetland mitigation is required policy and regulation within the Cities of Burien. Normandy Park and Des Moines. Impacts to wetlands in the headwater area of these streams in the City of SeaTac will be mostly felt by those downstream of the headwaters in Normandy Park and Des Moines.

Obviously, these small urban stream systems are beyond the capability of further environmental degradation. They are beyond the carrying capacity to accommodate further hydrologic changes needed to accommodate the proposal. Clearly, it is a mistake to fill and pave the upper parts of these watersheds even if mitigation could be accommodated within them. To propose the fill and pavement in these watersheds and propose their impacts be mitigated in an area 20 miles away is simply unacceptable. if not illegal.

2

2. Cumulative Impacts. The Miller and Des Moines Creek Watersheds have been significantly altered by urban development. There are existing water quality problems. fish habitat degradation, and flooding hazards within these watersheds which have been caused or worsened due to urban development. including the presence of a major regional facility—SeaTac Airport—in the headwaters of the streams. All studies show that increased urbanization and impervious surfacing within watersheds. especially the headwater areas of watersheds, causes downstream impacts which simply cannot be engineered to compensate for the loss of water absorbing vegetation and wetlands. While it is true that the Miller and Des Moines Creek Watersheds have been significantly altered already, these streams are in a state of healing through natural and engineered restoration efforts. I do not believe that these streams can handle the magnitude of change that will occur by dumping 20.6 million cubic yards of fill into their headwaters and topping it with an airplane runway. The cumulative impacts that cannot be mitigated by this intrusion of fill and impervious surfacing will include: significantly increased stream flows; destroyed fish habitat; degraded water quality; increased flood hazards; decreased ground water recharge/ decreased water supply; and increased transport of sediment and pollutants to Puget Sound. These cumulative impacts are not in the interest of anyone in the Puget Sound ecosystem.

3

3. Impacts on Watershed Management Programs and the Communities. Numerous watershed management programs and public works and education projects and programs have occurred or are occurring within the Miller and Des Moines Creek Watersheds, including efforts to: protect and restore fish and wildlife habitat: re-establish or enhance anadromous salmon runs; reduce flood hazards; provide parks and open space and recreational opportunities; and raise public awareness about the natural resources and environment within the watersheds. The impacts of the proposal to fill the headwaters of the watersheds threaten each and every one of these public facilities, programs, and projects. Wetland mitigation outside the Miller and Des Moines Creek Watersheds, besides violating public policy and regulation, is contrary to every one of these community efforts and assets. Inadequate and unachievable stream mitigation could forever ruin our communities by destroying the last functioning vestiges of our watersheds' ecosystem.

4

4. Proposed Listing of Chinook Salmon as Endangered/Threatened. As a project which both requires a federal permit and uses federal dollars, this proposal must be evaluated for its impact on chinook salmon which has been proposed to be listed as endangered/threatened under the Endangered Species Act. A consultation must occur with the National Marine Fisheries Service before any permit can be issued. Moreover, there are impending proposals to list several other Puget Sound salmonid species as potentially threatened or endangered. Adding 22 acres of created wetlands to the Green River system will have a very small, if insignificant, benefit to that system, including salmonids. But 22 acres of wetland mitigation within the Miller and Des Moines Creek watersheds would have a substantial positive impact on fish and the small urban systems they depend upon which have been so heavily degraded, including by past airport developments.

Granting a permit for the above referenced proposal is clearly not in the best public interest. Permitting this project with the proposed wetland mitigation plan would be an absolute sham and would be contrary to every objective of environmental and growth management. Simply stated, if wetland mitigation does not fit, then you must not permit!

Sincerely,

Doug Osterman

Doug Osterman

4-9-98

COLONEL I AM WARREN K. PUGH I USED TO HAVE MY OFFICE IN AUBURN

2P-21

THE CITY OF AUBURN SHOULD NOT BE PENALIZED BY ALLOWING THE PORT OF SEATTLE TO USE UP ~~THEIR~~ AUBURNS LAND, TO MAKE-UP FOR THE PORTS ~~THEIR~~ LAND FOR WETLAND. ~~WHICH~~ THEY WILL NEED TO OFFSET WETLANDS IN THEIR OWN CITY ESPECIALLY WHEN THE ~~WETLANDS~~ ARE TO OFFSET WETLANDS 10 MILES AWAY

1

AUBURN ~~HE~~ HAS A LOT OF WETLANDS AND NEED ALL OF THER LAND TO OFFSET THER OWN WETLANDS.

HOW CAN THE FAA APPROVE THE AIRPORT AT ALL BECAUSE THEY HAVE WETLAND DIRECTLY UNDER THE RUNWAY TO NORTH + SOUTH THAT WILL REMAIN WITHIN 10,000 FEET IN WHICH CASE THE AIRPORT SHOULD NOT BE ALLOWED.

2

Warren K. Pugh
12119 25TH St
BURIEN, WA 98146

April 9, 1998

U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

Re: Port of Seattle Wetlands Permit Application, Sec. 404 (b)(1)

Attention: Jonathon Freedman, Project Manager

Dear Mr. Freedman:

1 Sea-Tac Airport has constructed a waterproof concrete structure over some of their real estate, and intends additional expansion. This roofing will never purify water, be a storage cistern, provide flood control, or furnish clean water for humans and wildlife. The water runoff from Sea-Tac Airport has polluted the aquifer beneath the airport - the same aquifer from which our communities get their water supply. Sea-Tac runoff also flows into a natural wetland which contains cattails, rushes, sedges, grasses, willows and alders in a swampland with millions of tiny living organisms that provide us with an urgently needed water resource. This wetland has existed 2 for centuries, set in a specific location, providing layers of natural pollutant strainers and an organic sponge which cleans and stores our diminishing water resource.

3 Some assume that this wetland harbors ducks which endanger flying aircraft. As a result, they advocate destruction of the ecosystem. This wetland does NOT support a threatening duck, crow or seagull population. The birds that I have been able to track, fly from Puget Sound to Angle Lake. I have never heard of any waterfowl/aircraft collisions - nor heard explosive charges (Common at Boeing Field International) to discourage ducks at Sea-Tac Airport. I do not advocate destroying Puget Sound or Angle Lake because of their duck population.

4 I was pleased to review the U.S. Army Corps of Engineers' "Service to the Nation" brochure, and its pledge concerning preservation and protection of wetlands. It fortifies both Vice President Gore's and my opinion on wetland preservation. King County is rapidly growing in population. As a result, our need for water increases; preservation is crucial. The Sammamish Plateau and the Covington area are already

experiencing water shortages. I urge the U.S. Army Corps of Engineers to protect and not destroy this wetland.

It is impossible to "relocate" a wetland to a completely different watershed and consider it mitigation for the loss of wetland in the original watershed; such reasoning is folly. A wetland filled in the guise of relocation will only remove its existence. Man and his machinery do not belong on wetlands. Please heed Oregon's warning concerning destruction of the Willamette River and Valley, and their effort now to rebuild what has been destroyed. Don't destroy our wetlands.

5 In conclusion, what cost-effective study alternatives do you have to avoid wetland destruction? I recommend adherence to your pledge to protect wetlands. Do not allow the power of commercial enterprise to taint your decision. Please reject the Section 404 (b)(1) permit submitted by the Port of Seattle.

Sincerely,

Russell R. Richter
711 SW 187 Street
Normandy Park, WA 98166

c: Governor Gary Locke
U.S. Senator Patty Murray
U.S. Senator Slade Gorton
U.S. Representative Adam Smith
State Senator Julia Patterson
State Representative Karen Keiser
State Representative Jim McCune
U.S. Environmental Protection Agency
State Department of Ecology

8850 - 9th Ave. S.W.
Seattle, Wash. 98106-2515

9 April 1998

Johnathon Freedman, Project Manager
U. S. Corps of Engineers
Post Office Box 3755
Seattle, Wash. 98124-2255

Subject : SeaTac Airport Section 404 Permit Hearing

Dear Mr. Freedman,

I am writing my comments to you and asking you to "Deny" the 404 Permit to the Power Hungry Port of Seattle.

1. Wet Lands are an essential part in the proper balance of nature and as history has proven over and over again that as we neglect or destroy them that we eventually pay a very high price for our mistakes !!! Wet Lands cannot be moved across town or miles away as if we move a tree from one part of the park to another. It takes years and years to truly reestablish such a thing and most often it's a total failure and too late.

2. Of all places - over Drinking Water Aquifers and in the midst of essential Wet Lands they want to crowd in another Dependent Runway !! (Dependent is too close to other runways for Independent All Weather Landings and take offs.) The Port of Seattle is definitely not designing runways and airports by us Flight Crew Members that have to put our lives on the Line and the safety of hundreds of passengers. They seem to be trying to compete using this postage stamp area with Dalles and Denver Airports that have 50,000 acres for 10 or so runways.

3. The City of Seattle only allows escorted tours in their water sheds for Seattle Water and would never concider Glycols and Exhaust Fumes etc. being allowed in the area. Even in the open water reservoirs in Seattle they install mechanical "Bird Scare" devices to keep the ducks and pigeons out of the drinking water and are starting to put rubber tarps over the surface in addition just for extra precaution of safe drinking water for the Seattle water users. I wish you people would maintain the same safe standards for the people that live around the airport !!!

3

4. I have been a Commercial and a Military Aviator most of my life and have flown all around the world for years and another concern I have is the Glycols etc. that are used in deicing the planes before take off. The Port of Seattle seems to think that all Glycols etc. will be recycled and caught in the drain basins before taxiing out but in my opinion they are still coming off the planes for miles during the take off of each flight and this ends up in the Wet Lands, Homes, Yards, Schools, Businesses, and eventually winding up in the Drinking Water Aquifers that the current airport is sitting upon.

4

5. I also understand that a runway cannot be built within 10,000 feet of Wet Lands and if you allow filling the Wet Lands with Millions of yards of soil then remember that Angle Lake and Part of Puget Sound should be filled in as well. Let's keep the port of Seattle to the same high standards that the rest of us need and have to live by.

5

6. What will happen to the Drinking Water Aquifers with the additional weight alone of these millions of yards of soil and hoping it is "<u>Clean</u>" soil and not contaminated. What is going to happen to the percolation and stability of the base and the nearby soils ?? I question this intently !!

6

7. As a Professional Aviator, I of all people should be "For" this runway addition with my love for aviation. But I am "Not" because I feel that the Port of Seattle does not listen nor care about the neighbors. There are many noise and pollution violations the Port doesn't take care of so far. The Port of Seattle promised no more than 2 runways when the second runway was built and now they want the most expensive runway in the United States and it's only 8,500 feet long. If this is built they will immediately claim it is not fully usable because it is too short and will want to build an extension to 15,000 feet because of the necessary length needed for planes like the 707 and bigger. I also understand they already have plans for a 4th and a 5th runway. What a waste of Tax Payers Money in this area.

8. We need a "New, Separate Airport" with atleast 50,000 acres so there won't be so many hazards for the Flight Crew, Airplanes, Passengers, Neighborhoods, Etc. Etc.

If you allow this to somehow pass then I shall have to assume you too don't care about the necessary Wet Lands, the People, the neighborhoods, the Drinking Water Standards, Etc. that are so vital to a healthy life.

I am writing to you personally and I would like to have a personal answer from you. Thank you.

Awaiting your personal answer,

Harvey Rowe

Harvey Rowe

FISHERIES CONSULTANTS

April 9, 1998

Jonathan Freedman, Project Manager
Regulatory Branch, Seattle District Office
U.S. Army Corps of Engineers
P.O. Box 3755
Seattle, WA 98124-3755

Dear Mr. Freedman:

Subject: SeaTac Airport Master Plan, Comments on Aquatic Habitat and Fish for Section 404 Permit Application

Development of the Third Runway for SeaTac Airport will have an overall neutral effect on aquatic habitat and fish populations in Miller Creek. Minor benefits to the stream corridor and fish populations will result from the following:

- Proposed storm flow detention facilities will decrease peak flow events in Miller Creek by 5% to 20%, compared to existing flood flows. This will slightly reduce the cumulative effects of storm flows caused by overall basin development (residential, commercial, industrial).

- Riparian vegetation and streambank conditions in a 100-foot wide by ¾-mile long corridor of Miller Creek will be improved after buyout and removal of houses along the stream. This will benefit aquatic life by promoting growth of riparian shrubs and trees, reducing human disturbance of fish, and removal of man-made clutter from the stream.

Adverse impacts of the proposed Third Runway project to Miller Creek include the following minor effects:

- Re-location of ¼-mile of Miller Creek from an existing excavated channel to a new excavated channel. The short-term impacts of construction negate some minor long-term benefits of a wider stream buffer zone through some of the re-located reach.

Fisheries Consultants
3100 243rd Street SW
Brier, WA 98036

phone: (425) 482-6420
fax: (425) 482-6421

- The runway fill and increased paved areas will result in a 8% (approx.) reduction in low stream flows in late summer, due to slightly reduced permeability of the watershed to infiltration of rainfall. This includes the effects of filling approximately 12 acres of wetlands within the basin, and slightly reduced groundwater recharge.

Other proposed changes in the basin with relevance to Miller Creek and fish populations include: construction of ½-mile drainage channel along the west side of the runway fill, possible minor changes to Lora Lake inlet and outlet, floodplain excavation to mitigate for floodplain fill, and small changes in the stream channel where existing structures would be removed or new structures placed (e.g. drainage channel inlet). I considered the net result of these activities to be neutral on aquatic habitat and fish production.

In my analysis of Third Runway effects on Miller Creek, I considered changes that would increase fish production of native species to be beneficial; this would include coho salmon, chum salmon (in lower reaches), steelhead, sea-run cutthroat trout, and sculpin. I have also included a short section to address possible issues related to fish species proposed or petitioned for listing as threatened or endangered under the Endangered Species Act.

I was hired by the Port of Seattle for this review. I have 16 years experience in salmon habitat enhancement in the Pacific Northwest as a Certified Fisheries Scientist and Registered Professional Engineer. My assignment was to provide a technical assessment of Third Runway development on Miller Creek, based on the Port's JARPA application.

Benefits and drawbacks of the Third Runway for Miller Creek are explained in more detail below. I did not review the Port of Seattle's proposed development in the Des Moines Creek watershed.

Storm Flow Detention Facilities

Storm flow detention facilities are relevant to the Section 404 permit because the airport fill (including some wetland fill) would affect peak runoff during storm events. Appendix G of the Master Plan Update EIS details the Port's hydrologic modeling study using the U.S. EPA's HSPF model. This model is widely accepted for evaluation of hydrologic relationships in basins like the Miller Creek watershed. My review of the model calibration, simulations, etc. for Miller Creek convinced me that the proposed project would result in an overall (beneficial) reduction in peak flow runoff.

Attenuation of peak flow runoff would be accomplished using three detention basins to intercept runoff from the increased runway fill area. These basins would have a total hydraulic capacity of 61 acre-feet and would more than

mitigate direct project effects on peak flow runoff. Compared to existing peak flows, maximum discharge would be reduced 5% to 20% for most flood events, depending on flood return interval and the point of measurement.

1 Basin designs are not included in the EIS or Section 404 permit application; however, design guidelines and sub-basin hydraulic capacities are itemized in Appendix G of the EIS. These detention ponds would adequately mitigate increased runoff from filled areas, including the small areas of wetland fill associated with the project.

100-Foot Wide Stream Buffer

The Port is buying private property and residences along the west side of the proposed runway fill, to meet noise restrictions of the expanded airport on residential areas. Existing residential property may be re-developed as commercial or industrial property within the buy-out zone. The Port has proposed that a 100-foot wide stream buffer (50 feet +/- each side) be established along the entire length of Miller Creek within the buy-out zone (3/4-mile stream length).

2 The 100-foot wide buffer along the stream would benefit aquatic resources by promoting riparian shrub and tree growth, decreasing human disturbances of fish and other native species, and by removal of numerous pieces of man-made clutter from the stream. These benefits would be realized provided that re-development is relatively low density, with the "footprint" of new construction more-or-less the same as existing structures. Re-development construction will be governed by current land-use regulations, which are substantially more protective of aquatic habitats than past regulations. Therefore, a long-term improvement in stream conditions is expected from the buffer zone.

Establishment of the buffer zone along Miller Creek would not result in excavation or fill within the floodplain or stream channel, and is not directly regulated by Section 404 permit authority. The proposed stream buffer is intended to improve overall stream conditions, as mitigation for excavation and fill proposed within the floodplain and wetland areas in the Miller Creek watershed.

Re-location of Miller Creek (1/4-mile length)

3 The reach of Miller Creek that would be re-located is currently in poor condition, as described in the EIS and JARPA application. At the time of my site survey, the stream was about 5 feet wide and 1 foot deep (average flow in spring). Habitat conditions adverse to native fish include typical "urban stream" conditions: straight alignment, lack of habitat diversity, lack of overhead or in-stream cover, silt/sand bottom, trash dumping, etc. Nevertheless, the stream

reach to be re-located is probably inhabited by cutthroat trout and provides potential habitat for other salmonids.

Stream re-location would necessarily disrupt existing riparian vegetation, existing in-stream habitat, and kill some aquatic organisms (e.g. frogs). These short-term consequences of stream re-location are characteristic of all stream projects, even when care is taken to collect and transport as many aquatic organisms as possible. Considering the short stream section involved in relocation, these impacts are minor to the overall system.

The re-located stream would have a wider riparian area (30 to 100 feet) than the existing stream. This would provide some minor long-term benefits to the overall stream. Stream re-location plans include a gravel substrate to replace the existing stream's silt and sand bottom. This gravel will be covered with silt and sand after several high flow events, due to erosion within the upper watershed (not necessarily related to the airport). The low stream gradient (0.3%) will make it impossible to prevent deposition of fine sediment; in fact, this is probably a natural characteristic of this reach of Miller Creek due to basin topography.

3

Excavation and fill within the stream channel and floodplain will be required for stream re-location. These activities are typically detrimental to habitat conditions for fish, even though the length of stream to be re-located is short. Therefore, I have concluded that stream re-location will have a minor adverse impact on aquatic life, despite application of Best Management Practices by the Port of Seattle.

Reduction in Late Summer Low Flows

A background caution for evaluation of this factor is that groundwater modeling, HSPF calculations, and all other sources of information should be considered "ballpark estimates" rather than exact numbers defining late summer flow amounts in Miller Creek. Logic and common sense tell us that filling and/or paving a small portion of the watershed (i.e. Third Runway) should result in a more-or-less proportional decrease in infiltration of rainfall. This decreased infiltration would result in less groundwater flow and lower rates of stream accretion (from groundwater) and seepage supporting late summer flows.

4

Hydraulic relationships between rainfall, infiltration, groundwater flow, groundwater "loss" to deep aquifers, and streamflow are presented in Appendix G of the EIS. In the EIS, a 7% reduction in Miller Creek late summer streamflow was estimated from all construction (fill and paving) associated with the Third Runway. However, the EIS model did not account for reduced groundwater infiltration and late summer streamflow (baseflow) caused by wetland filling.

I calculated the expected reduction in late summer flow in Miller Creek attributable to wetland filling using the same procedures as outlined in the EIS. Wetlands are estimated to have an infiltration rate over 30 times higher than

glacial till soils or compacted fill, for the same unit of land area. Third Runway construction would result in filling about 8 acres of wetland in the Miller Creek basin and 4 acres in the Des Moines Creek watershed. Wetland fill and conversion to "compacted fill" in the Miller Creek watershed would result in a 0.6% reduction in overall basin infiltration to groundwater. Conceptually, this would result in a 0.6% reduction in late summer streamflow to Miller Creek.

4 The estimated reduction in late summer streamflow in Miller Creek, due to the Third Runway, should be listed as 7.6% instead of 7% cited in the EIS (Appendix G). Most of this reduction (7%) is due to fill over glacial outwash soils, with the remaining 0.6% due to wetland fill. This minor reduction in flow is considered adverse to fish (and other aquatic life) because it will occur when aquatic organisms are already stressed by low flow conditions.

Existing low flows in Miller Creek are presently about 1 cubic foot per second (cfs) during late summer. A 7.6% (+/-) change in flow would not be visually apparent, and would probably not be measurable. Overall, this change in stream hydrology was considered a minor detrimental impact of runway development.

Endangered Species Act Considerations

Naturally spawning (vs. hatchery) chinook salmon in tributaries to Puget Sound have been proposed as "threatened" by the National Marine Fisheries Service (NMFS) under provisions of the Endangered Species Act (ESA). Also, a petition to list sea-run cutthroat trout throughout Washington as "threatened" is being reviewed by NMFS.

5 Chinook salmon do not currently inhabit Miller Creek, and the stream is considered too small to support a natural run of chinook salmon. Proposed critical habitat for Puget Sound chinook salmon does not include streams that currently do not have chinook salmon (i.e. Miller Creek). This is because NMFS considers the existing range of chinook salmon in tributaries to Puget Sound to provide adequate habitat for species recovery. Therefore, ESA considerations for chinook salmon are not relevant to Miller Creek.

6 Sea-run cutthroat trout in Puget Sound may be proposed for "threatened" status in the next few years. This species historically inhabited most small tributaries to Puget Sound, probably including Miller Creek. Possible future designation of critical habitat and required Section 7 (ESA) consultations with federal agencies would probably require that proposed developments result in "no net loss of habitat or population" for listed species. The existing Third Runway development plan would meet this potential future habitat protection threshold, as outlined above. This assessment would also apply to other native fish species possibly listed as threatened in the future.

Summary

Third Runway development including proposed mitigation measures will result in a neutral effect of the project on aquatic habitat and fish populations in Miller Creek. Specifically, excavation and fill activities in wetland and floodplain areas appear to be adequately mitigated that the resulting changes to aquatic habitat will be insignificant in a watershed context. Adverse project effects (e.g. stream re-location) are counterbalanced with positive changes (e.g. stream buffer zone).

The proposed Third Runway development would not result in any measurable or biologically important changes to Miller Creek habitat or fish populations. Factors limiting fish population productivity in the basin are numerous and well-known (stream channelization, altered hydrology, residential and commercial development, etc.). These limiting factors are spread through all human uses of the basin and are not specific to the airport or any other single entity.

The current proposed listing of Puget Sound chinook salmon as "threatened" is not relevant to Miller Creek. Sea-run cutthroat trout and other native species in Miller Creek may be listed as "threatened" in the future. The Port's existing proposed plans would result in "no net loss of habitat or population" for these other fish species.

Please give me a call at 425-482-6420 if you have any questions about my review.

Sincerely,

Paul Tappel

Paul Tappel
Civil Engineer & Fisheries Biologist

April 9, 1998

U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

Attention: Jonathan Freedman, Project Manager
Reference: 96-4-02325, Port of Seattle

Dear Mr. Freedman:

The intent of this letter is to formally request that the Army Corps of Engineers reject the Section 404(b)(1) permit submitted by the Port of Seattle. The permit should be rejected for the following reasons:

1 | • The proposed permit fails to define the scope of the proposed actions, including the size of the affected wetlands, and mitigation measures required.

2 | • The proposed permit is missing information and appears to contain misleading and erroneous information.

3 | • There are many issues concerning the proposed Section 404 permit which are currently in litigation. In addition, elements in dispute concerning the proposed NPDES permit affect provisions in the proposed Section 404 permit. Until these issues are resolved a Section 404 permit should not be issued.

4 | • The proposed permit fails to consider the replacement of wetlands in the same basin system. In addition, the permit proposes that the Corps reverse its previous policy requiring replacement of wetlands in the same basin system for proposed facilities in the South Aviation Support Area (SASA).

5 | • The proposed permit fails to consider available options which will eliminate the need for the proposed actions.

6 | • The proposed permit fails to consider the effects of potential listing of Puget Sound salmon under the Endangered Species Act.

Sincerely, /Kurt Wallin

Name: Kurt Wallin

Address: 21230 4th Place South
Seattle, Wa 98198

April 9, 1998

U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
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- The proposed permit fails to consider the effects of potential listing of Puget Sound salmon under the Endangered Species Act.

Sincerely,

Paul Inns
20759-2nd Ave S.W
Normandy Park Wa
98166

AR 036562

April 9, 1998

U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

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- The proposed permit fails to consider the effects of potential listing of Puget Sound salmon under the Endangered Species Act.

Sincerely,

June Snyder
23600 Marine View Dr - Apt #125
Des Moines WA 98198

April 9, 1998

U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
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Seattle, WA 98124-2255

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Sincerely,

Hildegard Stenkl
24824-9th Pl. S.
Des Moines WA 98198

NE RETURN ADDRESS

April 9, 1998

U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

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Sincerely,

Ray T. Howard

AR 036565

April 9, 1998

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Sincerely,

Name: Genevieve Rus

Address:
20759 2nd Ave S. Wa
Seattle, Wa. 98166-4223

April 9, 1998

U.S. Army Corps of Engineers
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Regulatory Branch
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Seattle, WA 98124-2255

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Sincerely,

Doris McGougan
878 5984

April 9, 1998

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Regulatory Branch
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Sincerely,

[illegible]
[illegible]

April 9, 1998

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Sincerely,

N E Byers
24837 - 1st Ave S
Des Moines, Wa. 98198
206 824-1747

April 9, 1998

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Sincerely,

Anne Byers
24527 12th Ave S.
Des Moines, Wa. 98198

(206-824-1747

April 9, 1998

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Sincerely,

Robert E. Ostrick
923 S. 245th Pl.
Des Moines, WA
98198

April 9, 1998

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Sincerely,

Mary E. Oestreich
923 S. 245 Pl.
Des Moines WA 98198
(206) 824-5460

April 9, 1998

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Seattle, WA 98124-2255

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Sincerely,

Erik Buffington
24815 - 12th AVE So
DES MOINES WA 98198

April 9, 1998

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Seattle, WA 98124-2255

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Sincerely,

Phill Buffington
24815 12th Ave South
Des Moines, WA 98198

AR 036574

April 9, 1998

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Sincerely,

Herbert H Connelly
24501 - 9th Pl S
Des Moines, Wa 98198

April 9, 1998

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- The proposed permit fails to consider the effects of potential listing of Puget Sound salmon under the Endangered Species Act.

Sincerely, Verne B Anderson

1117 S.O 24th Ave
Des Moines Wa
98198

April 9, 1998

U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

Attention: Jonathan Freedman, Project Manager
Reference:96-4-02325, Port of Seattle

Dear Mr. Freedman:

The intent of this letter is to formally request that the Army Corps of Engineers reject the Section 404(b)(1) permit submitted by the Port of Seattle. The permit should be rejected for the following reasons:

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Sincerely,

Marjorie M. Bredeson
1117 S 248th
Des Moines, WA 98198

April 9, 1998

U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

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Reference:96-4-02325, Port of Seattle

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Sincerely,

Adam J. Sackett
21311 3rd Ave South
Des Moines WA 98198
206-870-4091

April 9, 1998

U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

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Sincerely,

Mary Bacchetti
21311 3rd Ave. S.
Des Moines WA 98198
206-870-4091

April 9, 1998

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Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

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Sincerely,

Paul E Skoog
27610 12th Ave S
Des Moines, WA 98198-3866

S Lynn 206-824-1658

April 9, 1998

U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

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Sincerely,

Maxine D. Lobb
24405-10th Ave. So.
Des Moines WA 98198

April 9, 1998

U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

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Sincerely,

Eric E. Conrad
2422 [illegible] Ave. So.
Des Moines, Wa. 98198

April 9, 1998

U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

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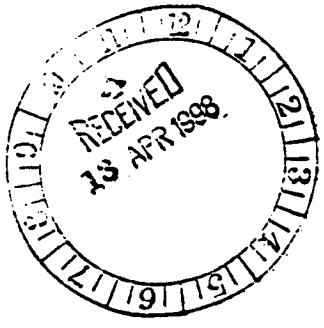
Sincerely,

Kenneth F. Weaver
24720 11th Ave S.
Des Moines, Wa. 98198

April 9, 1998

U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255



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Sincerely,

Dr. R. Allen Fiedler

Lorna A. Fiedler

April 9, 1998

U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

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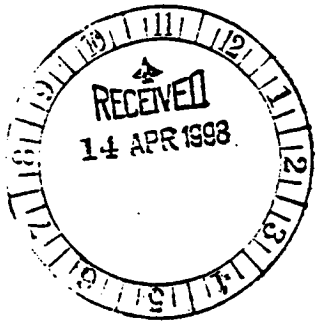
Sincerely,

Dr. Joe R Thomas

Norlean Thomas

April 9, 1998

U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255



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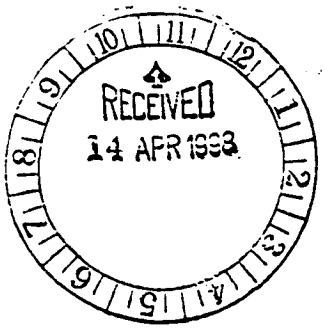
Sincerely,

Carol S Lent
(Mrs John A. Lent)

April 9, 1998



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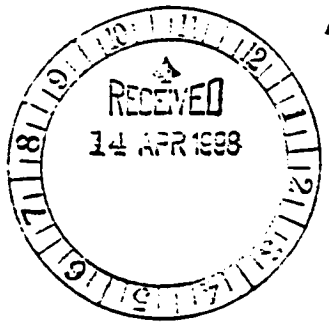
Sincerely,

Elba Olson
23600 Marine View Dr. S,
Des Moines, Wa 98198

April 9, 1998



U.S. Army Corps of Engineers
Seattle District
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Seattle, WA 98124-2255

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Sincerely,

Gillian Schuessler
23600 Marine View Dr. S. #209
Des Moines, WA 98198

2P-26

9612 - 55th Avenue South
Seattle, Washington 98118

April 9, 1998

U.S. Army Corps of Engineers
Regulatory Branch
Post Office Box 3755
Seattle, Washington 98124-2255
Att: Jonathan Freedman
Project Manager

Washington State Department of Ecology
Permit and Coordination Unit
Post Office Box 47600
Olympia, Washington 98504-7001
Att: Tom R. Luster
Environmental Specialist

Re: Permit Application for proposed construction at Sea-Tac International Airport.
Reference: 96-4-02325

1 Filled-in wetlands and impervious ground coverings will reduce surface water available to supply the underground acquifers around Sea-Tac Airport. These are the source of domestic water supplies for surrounding communities and the City of Seattle. This may lead to water shortages and possibly "no water" periods.

The Port of Seattle proposes in-kind wetlands mitigation by providing replacement wetlands many miles away near Auburn, Washington. This will do nothing to replace the lost surface water needed to recharge the local acquifers..

2 Sea-Tac Airport presently does a poor job of controlling poisons which drain into streams and the earth. Among these are kerosene jet fuel, deicing glycols, and lubricants. It is reported that some airlines use glycols the year around to protect planes against icing at high altitudes. Other reports indicate that jet planes routinely dump fuel into the atmosphere when they arrive with too much fuel weight for the poorly designed landing gear to handle safely.

Please require the Port of Seattle to immediately provide funding for a project to gather all surface water from present and future Sea-Tac Airport facilities including runways and taxi strips. This water must be stored and treated to 100% purity so that it can be fed back into the acquifers and/or domestic water supplies. This should be under direct control of the U.S. Army Corps of Engineers for design, construction, and operation. The Port of Seattle cannot be relied upon to do a satisfactory job.

Probably over a million people in and between Seattle and Tacoma are being blasted by jet plane noise and poisoned by jet fuel air pollution. The third runway will make it worse.

Please examine all possible environmental impacts including traffic, noise, storm water runoff, atmospheric pollution, and fish habitat.

Thank you,

Stuart Weiss

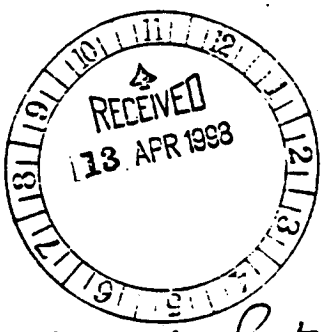
Stuart Weiss

3 copies
Each

2P-27

Des Moines, WA 98198
April 10, 1998

U.S. Army Corps of Engineers
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255



Reference: 96-4-02325

Dear Mr. Freedman,

We strongly believe that the Port of Seattle should not have the right to destroy streams and wetlands. The Port has already caused environmental harm to our local streams and communities and should not be allowed to cause further damage.

The Port wants so much to move wetlands to Auburn that they have offered compensation. No such offer has ever been made to the local area where the most harm has been done and will continue if they are allowed to proceed with their plans. History proves the Port is not a good neighbor.

Just because the Port has powerful backing they should not be exempt from common sense, the criteria of private developers and the rules that everyone else must use.

Please do not issue a Section 404 permit.

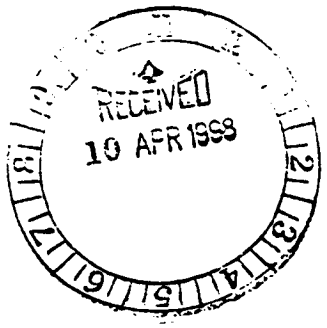
Thank you,

John + JoAnn Bolender

AR 036590

2P-28

ANN M. BONNEY
816 South 105th Street
Seattle, Washington 98168
April 10, 1998



Mr. Lowell H. Johnson
Manager, Airports Division
Northwest Mountain Region
1601 Lind Avenue S.W.
Renton, Washington 98005-4055

Dear Mr. Johnson:

Thank you for your letter dated April 6, 1998.

As you know, FAR 150 (i.e. public citizens living in 10 public jurisdictions) are Federally Registered to the Port of Seattle. The Port of Seattle is Autocratic, exempt from State, immune from State prosecution and has tax exempt status. Although 10 jurisdictions are Federally Registered to the Port of Seattle, the public citizens living in the 10 jurisdictions do not have the same Autocratic status as that granted to the Port of Seattle; so that leaves the 10 public jurisdictions exempt from the Port of Seattle; exempt from State and exempt from United States Civil Rights Protection. However, we are taxed by the Port of Seattle, taxed by the State and taxed by the United States. The public citizens living in the 10 public jurisdictions are also not immune from Port of Seattle prosecution; State prosecution and Federal prosecution.

Year after year we have spent a small fortune in money and time pounding on Port of Seattle Doors, State Doors and Federal Doors knocking and pleading for help. No one can help because we are exempt from all 3 doors. However, the IRS has never dealt with our huge losses as tax exemptions; which leaves our huge exemption losses direct out-of-pocket costs.

We are told by the State that since our exemption status is controlled by the United States Federal Register; our Federal Register questions will have to be addressed federally.

This is the issue:
Since the FAR 150 public are Federally Registered to the Port of Seattle, legally, shouldn't the public 10 FAR 150 jurisdictions have voting rights on the Port of Seattle's By-Laws and have Port of Seattle Autocratic status and have our own sovereign justice system like the American Indians?

The American Indians have Federal Register Autocratic Status and they have their own justice system making them exempt from Federal and State taxes and exempt from Federal and State prosecution. Shouldn't the 10 jurisdictions have the same Civil Rights Protection as the American Indians?

I look forward to hearing from you regarding Civil Rights Protection granted under the United States Federal Register.

Sincerely,

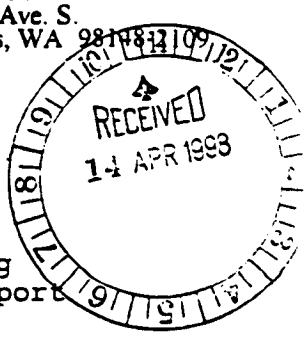
Ann M. Bonney

cc: President Clinton
cc: Jonathan Freedman, Project Manager, Army Corp of Engineers

April 10,1998

2P-29

Dan Caldwell
19547 2nd Ave. S.
Des Moines, WA 98148



Colonel James M. Rigsby
District Engineer
Seattle District, Corps of Engineers
P.O.Box C-3755
Seattle, Washington 98124-2255

Re: WETLANDS. Strip Mining of Seattle/Highline Drinking Water Aquifer By The Port of Seattle At Sea-Tac Airport

Dear Colonel Rigsby:

I am a private citizen. Early last year Citizens Against Sea-Tac Expansion (CASE) brought this problem to me because of my experience in wells and aquifers as a Commissioner for Highline Water District in addition to regional and national water issues. I brought the stripping problem to the attention of the Seattle Water Department (SWD) and requested a speaker to make a presentation to CASE. I never heard back. Now the SWD employees appear to be in an untenable position as newly elected Seattle Mayor Paul Schell was a prime sponsor of this airport project when he served as a Port Commissioner.

Historically the suburban cities, Seattle, King County Council and Legislature banded together to protect the Highline drinking water aquifer. In the 1980's the Council protested when METRO planned to drain the aquifer for a sewer pipe outfall. The Legislature later placed METRO under the County Council. Later the Seattle Council worked closely with the southend cities to close the Seattle Solid Waste Divisions' Midway landfills which were hazarding the aquifer. The Port appears to have the political power to circumvent environmental laws and the Clean Water Protection Act with impunity.

In the middle 1980s' due to a shortage in the basic water supply caused by a population explosion the Highline Water District redeveloped two water supply wells near the southend of Sea-Tac airport. This was a major undertaking as it was necessary to hammer drill through two aquifers into the third aquifer about 500 feet deep and a 100 feet below sea level. The two Highline wells supply 20% of the water to seven cities. The balance of Highlines water supply is purchased from the Seattle Water Department.
Based on the success of the Highline Wells the SWD drilled a production recharge well north of Sea-Tac airport into the aquifer. This recharge well is unique to the region for peak demand dry periods.

At present SWD has only five supply sources, The Cedar River, Tolt River, Highline Well field, interties and conservation. As you are aware the river supply sources are in constant jeopardy due to salmon problems, Indian treaties and Federal political policies.

The importance of the Highline aquifer to this regions water supply cannot be overstated. For example during the El Nino water shortage in the early 1990's the SWD lost the water behind the Cedar River dam. The water from the Highline wells working beyond their design limits in conjunction with interties with the Federal Way system supplied a substantial portion of south King County needs.

Seattle is unique with clean water available directly from rivers. The regions rivers are now peaked. The majority of the world relies on wells or on recycled river water passing from city to city.

The Highline aquifers is water bearing sand and gravel left by retreating glaciers between ice ages. It is recharged by rain seeping from the surface lakes, rivers and wetlands into the intermediate aquifers and following the physics rule, seeks its' own level through gaps and old well sites. Recharging is a slow process (and makes for dull reading). Contamination follows the seepage and follows the water or blocks the passage. Once the seepage reaches a water supply aquifer the water travels rather quickly to the well "draw down" which is the lowest point at the well head.

If serious contamination reaches a well head the alternatives are to shut down the well, invest in filters or re-drill to find potable water at a greater depth. The first and second Highline aquifers are already contaminated. The third aquifer is in use at about 100 feet below sea level. The fourth Highline aquifer is believed to be at least 600 feet below sea level. Well drilling is not an exact science. Only about one in ten wells at a known water location will produce sufficient potable water for municipal use. As you are aware Wells are a risk venture. Ten and 15 years ago the well using water districts banded together obtained a Federal Grant and formed Regional Water Associations and Ground Water Advisory committees. I was fortunate on occasion to Chair these committees. Tough regulations were developed to protect the aquifers. The regions cities complied even though it meant serious hardships to service stations and small business ventures. The Port never cooperated. Shortly after I retired the newspapers reported that the Port had opened the Highline intertie and for almost ten years had been secretly taking water without compensating the district. After costly litigation the Port paid a small settlement for the stolen water.

Now the problem is that the Port plans to fill in the Highline aquifer wetlands and strip all earth (borrow) down to the first aquifer. The planned one million cubic yards of borrow will be compressed 40% and used as a base for their runways. The volume of borrow is equivalent to 25% of Grand Coulee Dam. Another 11.4 million cubic yards of clean fill equivalent to several Dams will be trucked in locally and barged in from

Vashon Island until the regional supply of fill is depleted and the balance purchased in Canada and barged in from Vancouver Island. The compression of the fill will require a substantial portion of the Seattle Water Supply and at the same time quickly introduce tremendous amounts of silt and airport contamination to seep directly into the first aquifer and eventually and irreparably seal and damage the fragile Highline aquifer sometime early in the next century. 1

To offset criticism for filling in the Highline wetlands the Port appears to be playing games by substituting a worthless unused wetland over the White River aquifer in Auburn in place of the Highline aquifer. It appears as a trick to fool the public as well as circumventing environmental laws and the Clean Water Act. I do not know if they intend to keep the Auburn wetlands once the project is completed. 2

To protest the Ports' conduct, last year I filed a token election campaign for Port Commissioner to point out some of the Port foibles and to make the Port aware that there is was county wide voter opposition to their tactics. The voters agreed. I received far more votes then anticipated (180,000) and came within 2% of winning.

I request your assistance to protect the water supply aquifer.

Dan Caldwell
Commissioner(retired)
Highline Water
19547 Second Ave. S.
Des Moines, Wa 98148
(206) 824-0736
FAX 206 824-2174

Author: COL Mike Rigsby at DIST
Date: 4/10/98 8:04 AM
Priority: Normal
Ingwilboat@aol.com at Internet
CC: Jonathan R Freedman at NPS-OP
CC: Thomas F Mueller at NPS-OP
Subject: Re: Port of Seattle Wetlands Fill Permit Application
---------- Message Contents ----------

Ms. Hansen,
Thank you very much for your comments. I have forwarded them to our Project Manager, Mr. Jonathan Freedman. They will be given careful consideration and treated the same as the oral comments received last night.

COL Mike Rigsby

---------- Reply Separator ----------
Subject: Port of Seattle Wetlands Fill Permit Application
Author: Ingwilboat@aol.com at Internet
Date: 4/10/98 2:21 PM

April 10, 1998
Col. Mike Rigsby, P. E.
U.S. Army Corps of Engineers

Re: Port of Seattle Application for Permit to Fill Wetlands at SeaTac Airport; Public Comment

Dear Col. Rigsby:

Thank you for holding the public hearing last night. I have two comments on water quality and public safety.

1 The huge quantity of dirt required for the fill will include some contaminated soil. Nobody will intend it, and all possible will be done to guard against it, but it will happen. Hemophiliacs who need a lot of blood do get blood-borne diseases; dirt will fare no better. If dirt comes from Maury Island, long in the plume from Asarco picking up arsenic, etc., the contamination is a certainty. Contaminated dirt will pollute the Highline aquifer. Seattle Water will no longer have its summer demand storage area, and Highline Water will lose 20% of its capacity.

2 The dump trucks hauling the dirt will be rushing at top speed to make runs as quickly as possible. The trailers with long tongues will trap other highway users. The massive trucks will not stop in time. People will die in traffic accidents. Again, we donÆt want it to happen, but given the size of the project, it will.

I served on the Citizen Advisory Board on the Highline Aquifer for Seattle Water. Also, as an attorney, I represented insurers on soil contamination damages cases on the Port of SeattleÆs Terminal 105 W. Marginal Way project. My experience tells me that given the chance, these accidents will happen. The PortÆs wetlands fill project should be halted.

Sincerely,

Ingrid W. Hansen, 14639 - 25th Ave. SW, Seattle, WA 98166-1620
Ingwilboat@aol.com

(B-A~It's been said that it is political suicide (in certain circles) to go against the runway. As a Boeing engineering manager it would be inappropriate for me to relate my Oct 1996 conversation with John Kelly which included a discussion of fill costs and potential alternatives. It is my opinion that he has a better grasp of the costs than the Port and may be willing to speak frankly with you regarding alternatives.

Regarding the costs of the runway, in order to keep passenger use fees reasonable, the cost will have to be passed onto King County taxpayers eventually. If you compare construction costs, FAA funding, numbers of passengers, pounds of cargo and number of aircraft for Sea-Tac compared to the new Denver Airport, you will see that this project benefits the construction industry, NOT the aerospace industry. You will find some information on this in my DEIS comments that I passed in the night of the hearing. I didn't get a chance to make annotations as I'd hoped. Some of the cost data in there is obsolete. It's too low. A national economic expert reached the same conclusions and testified in front of a Congressional Hearing regarding the high costs of this project. The situation is even worse now, particularly if you consider the over 3 billion price tag the Burien HOK study put on it. The return on investment for the region is NEGATIVE.

As part of a state funded Burien Impact Analysis consultants were hired. Rose Clark on (206) 248-3965 passed on the consultant's comments to me when she heard I has similar concerns. Joe Pobiner, HOK, 3131 McKinney, Suite 500, Dallas, TX (214)880-0100, FAX (214)880-9689 was one of the consultants that expressed concern with the retaining wall design. He is requesting permission from the Burien City lawyer to write you a letter on this subject. The Burien Impact Analysis report has a discussion of alternatives in it so I will try to arrange for someone to send you a copy of it. I don't believe it discusses retaining wall risks.

The Univ of Florida comments on fill calculations are in DSEIS Appendix M. See Christopher Brown and Jimmie Hinze, Comments on the Analysis of Construction Impacts in the Draft SEIS for Seattle-Tacoma International Airport (Mar, 1997). I'll send you a copy too.

By the way, the COL agreed to a meeting the night of the hearing. I asked him if I should contact his office or you to set it up. He said to contact you. I dont think this was conveyed to you. Ill be out of town so Candy Corvari may try to follow-up on this while Im gone.

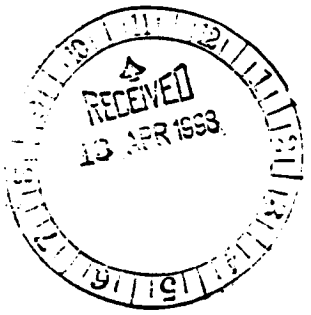
Thanks again for taking the time to hear our concerns
Arlene Brown

Jonathan R Freedman wrote:
>
> Arlene:
>
> In general, I have not encouraged electronic mail responses because I

> am concerned about being deluged with messages that our system (and I)
> couldn't handle. However, you didn't know that. You have raised
> specific points. Let me take your points in order:
>
> If Mr. Kelly knows of a practicable alternative at the airport, or
> anywhere within the market area that does not involve the filling of
> wetlands and accomplishes the project purpose, I would like to be
> informed of it. I will consider contacting him if I have reason to
> believe he might possess this.
>
> If the Port of Seattle's costs for the proposed project wind up being
> passed along to their customers, that is less of a concern for the
> Corps. They always must demonstrate that they are proposing the least
> damaging practicable alternative. Aside from that, we assume that an
> applicant's proposal is in their own interest, and mostly leave any
> business decisions about their client base to them.
>

> If you know of calculations of fill material from the University of
> Florida or any other source, tell me where I might find this
> information.
>
> Likewise, any design investigations done by the City of Burien would
> be relevant to our analysis. Who did them? Are they available?
>
> Thank you for your input -
>
> Jonathan Freedman
> Project Manager
>
> _____ Reply Separator _____
> Subject: Re: CEO Input Needed?
> Author: COL Mike Rigsby at DIST
> Date: 4/11/98 4:17 PM
>
> Thanks, Arlene. I will forward your comments to our Project Manger
> for this permit, Jonathan Freedman.
>
> The public hearing was beneficial for me because it did reveal some
> information that I was previously unaware of despite a lengthy review
> of the public record.
>
> As I stated at the public meeting, the permit would be denied if I
> determined that this project was not the least environmentally
> damaging practicable alternative or if I determined, based on the
> reasonably foreseeable benefits and detriments, that the project was
> not in the public interest. As you know, these decisions are not easy
> to make and require careful consideration. You can be sure I
> understand the magnitude of this decision and will do my best.
>
> I appreciate the positive feedback. Thanks.
>
> COL Mike Rigsby

> _____ Reply Separator _____
> Subject: CEO Input Needed?
> Author: brownadb@gte.net at Internet
> Date: 4/11/98 2:13 PM
>
> Please consider calling the CEO of Alaska Airline, John Kelly, and
> asking him if the airlines can afford over 28 million cubic yards of
> fill. When I talked to him in October of 1996 he was advocating a runway
> on existing property to avoid the astronomical construction costs.
>
> By the way, the 28 million cubic yards is based on Univ. of Florida
> calculations. They commented that the 26.4 million was calculated
> incorrectly.
>
> The real number is even greater than 28 million cubic yards. The
> seismic anomalies have not been addressed yet. Also, according to a
> consultant hired by Burien, the retaining wall design won't work so more
> fill will be needed to either move or put a tunnel over highway 509. The
> current design is too steep.
>
> Considering what I've run into when I've grounded aircraft or killed
> multi-million dollar projects because they were unsafe, I do have some
> appreciation for the situation you will find yourself in if you decide
> to deny this permit.
>
> What would be the most compelling argument for denying this permit?
>
> Please feel free to ask for additional data on any of the issues we have
> raised.
>
> Thanks again for being so attentive at the April 9 hearing despite the
> late hour.
> Arlene Brown
> brownadb@gte.net
> Pager (206) 657-1544 Home (206)431-8693



2P-31

SEattle, Wa.
April 10, 1998

Jonathan Freedman, Project Manager
U.S.Army Corps Of Engineers
P.O.Box 3755
Seattle, Wa. 98124-2255

Dear Sir,

The Highline School District, which encompasses the Seattle-Tacama International Airport and the surrounding area, has for over thirty years included in its curriculum a major emphasis on environmental education. Every sixth grader, well over 1000 students each year, spends one full week at Camp Waskowitz, a camp owned and operated by the school district, living with and studying the importance of conservation and maintenance of our natural resources and our invironment. This emphasis is incorporated in programs through out the remaining years in school.

Miller Creek and Des Moines Creek both figure prominently in the "hands on" aspect of the learning process, as do several of the small lakes in the region. At the high school level a two year program is offered in oceanography. The classes are conducted in the school district owned and operated facility located at Seahurst Park on Puget Sound. These programs are nationally recognized for both environmental education and conservation.

It is most difficult to understand how a large government body, namely the Port Of Seattle, can blantantly make decisions which would dramatically alter the natural water and land resources that remain in our district. We teach the fairness of government, and yet these concepts so important to our democracy are disregarded when one large government agency decides to expand and over run a local community.

Our young people must see, without reservation, that our check and balance system built into our government is truly fair and does work. If not, our future leaders, and ultimately our form of government, will flounder.

I urge you to demonstrate to not only the adults who rightfully are opposing the Ports request for removal of wetlands in our district, but to show our youth, through your actions, that even the young and somewhat voiceless are protected from what appears to be uncontrolled big government.

2 I urge you to deny the request of the Port Of Seattle for removal of our valuable and limited wetlands in the Highline School District.

Thank you for your consideration.

Sincerely,

Dr. Robert D. Sealey
Former Superintendent
Highline School District

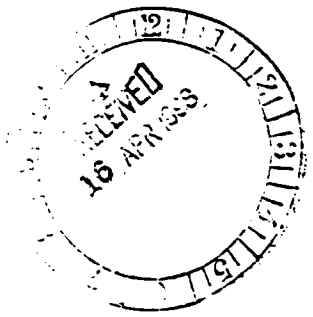
Phone: 206 243 8149
Address: 1804 S.W.156th
Seattle, Wa.

c.c. Dr. Joe McGeehan

A.C.C.

April 13, 1998

2P-32



Army Corps of Engineers
Box 3755
Seattle, Washington 98124-2255

Attn: Mr. Jonathan Freedman
Project 96-4-02325

The Port of Seattle has proposed to fill 11.42 acres of Wetlands to make way for the proposed third runway at SeaTac International Airport.

I strongly do not approve of the third runway and the destroying of the Wetlands.

I request, as a local concerned citizen, that the Army Corps of Engineers disallow the Port of Seattle to proceed with the third runway planning.

The wetlands in question are a vital part of our community and must remain as such .

Adequate research has not been done to determine the damage that may occur to the aquifer after 27 million cubic yards of fill dirt are used to provide a runway base and to fill the wetlands.

To destroy a wetland by building a third runway which will be outdated before it is begun is not intelligent and not in the best interests of the community.

Respectfully,

R. Earl Jobe

R. Earl Jobe
19653 Military Road South
Seattle, Washington 98188

2P-33

From: Barbara H. Stuhring
24828 9th Pl. S.
Des Moines, WA 98198

To: Corps of Engineers
P.O. Box 3755
Seattle, WA 98124

Re: 96-4-02325

Before I submit my comments to you, I wish to emphatically state that our airport community is not against airports and we are not against the existence of Sea Tac Airport at its present location and size. But we are against further growth and expansion of the airport because such growth would result in a great negative impact to our wetland environment.

Here are my comments and suggestions:

1

1. The delineated wetland area contains 144 acres of wetland with 7 creeks running through it. To fill in more than 11 acres of wetlands will lead to the endangerment of spawning salmon in the creeks. Since salmonid have been added to the endangered species list, it is imperative that before the Corps permits this project, it should require the Port to devise a salmon recovery plan.

2

2. Under Sea Tac Airport is an aquifer from which our drinking water is drawn. When acres of wetland are filled (and additional acres of wetland are disturbed), the integrity of the aquifer will be severely challenged, and damage to this natural resource would be expected.

3

3. New information has come to light about SASA. At present there is no route from the runways to SASA, just air. A valley and acres of wetlands separate the two. Some kind of bridge (undefined as yet) must be constructed over or on top of an area containing 18 acres of wetlands. The Port should submit plans detailing this "bridge".

4

4. If poor weather or capacity is a problem at Sea Tac they can be handled by allowing reliever airports (Boeing Field, Moses Lake, Paine) to take some operations. No wetlands or salmon are found at Moses Lake Airport and Paine has no wetlands which need filling.

5

5. For the Corps to make a decision as to whether or not to permit this project, it's essential that you find out all sources of the fill and make-up of the fill. The Port has as yet made no final decisions about the fill so no one can judge its impact to the remaining wetlands.

6

6. The increase in the number of acres of impervious surface which this project necessitates is of importance when assessing the impact of filling our wetlands. An increase in pavement will cause an increase in pollution runoff to the wetlands and creeks and will kill more salmon and have a negative impact on the aquifer. The Corps should ask the Port to include in its permit application the number of acres of impervious surface resulting from another 8,5000 foot runway and the many proposed landside facilities.

4

7. Will the Vacca Farm acreage recently purchased by the Port increase the number of affected and filled wetlands if this project is allowed to go forward?

Thank you for accepting my comments and questions. I await your answers.

Sincerely yours,

Barbara Stuhring, April 2, 1998

Barbara H. Stuhring

April 14, 1998

These pictures were taken in 1971 of the Sea-Tac Airport Expansion projects involved with the Construction of the 2nd runway.

They didn't do a very good job of controlling the run-off from these filled areas and construction sites back then and — I'm skeptical as to their ability to handle the 96.4 million cubic yards of fill dirt for the 3rd runway.

The problems the Port of Seattle has had with the construction of the new 40 acre Sea-Tac Airport Employee Parking Lot does not inspire much public confidence in their ability to handle a project of this magnitude.

AR 036604

The environmental oversig t agencies must be responsible for implementing strong, safe and environmentally sound construction techniques.

We all know that this is nothing but a political power manouver and that no other entity would ever be allowed to consider such an enormous - expensive - and environmentally damaging project -

Helen Kluckt
17529 13th S.W.
Seattle, Wa. 98166
206-243-3292

AR 036605

2P-35

April 14, 1998

US Army Corps of Engineers
Seattle, Washington

To Whom I t May Concern:

After attending the hearing concerning the filling of wetlands and stream relocation because of 3rd runway construction at SeaTac Airport, we feel it is important to state our comments as well. We urge the Army Corps of Engineers to deny the wetlands permit to the Port of Seattle. As others stated at the hearings: there are viable fish populations in these waters, recreating wetlands is not "natural", and the idea of the Port mitigating the folks in Auburn and leaving the residents near the airport "high and dry" is downright unfair!

1 We also question the "bird problem" given as a major reason for destroying our local wetlands and messing with our watersheds. Where are the SeaTac statistics to
2 validate their concerns? Also has there been any study of the amphibian populations and the impact the Port's plan will have upon them?

As lifelong residents of this area, we have seen the destruction of an entire lake and wetland system when the 2nd runway was built. Please don't let the Port continue to damage and destroy the little bits of nature we have left.

Thank you,

Carlyn and Michael Roedell
P. O. Box 953
Seahurst, WA 98062

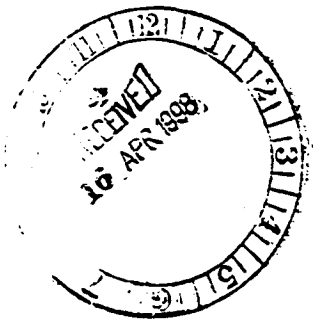
AR 036607

12 AVE S
S 176 ST

AR 036611

2P-36

Barbara H. Stuhring
24828 9th Pl. S.
Des Moines, WA 98198



April 14, 1998

Jonathan Freedman
Corps of Engineers
P.O. Box 3755
Seattle, WA 98124

Re: 96-4-02325

Dear Mr. Freedman:

Last Thursday night I attended the Corps' Public Hearing concerning the filling of wetlands at Sea Tac Airport. The Corps' Colonel who presided over the Public Hearing mentioned in his presentation a report from a citizen about the impact to the wetlands in the Port's Parking Lot Project. These wetlands are numbered 1 and 2 and are in this permit's delineated wetland area. The Port had gone ahead with construction without a permit from the Corps, but the Corps allowed the Port to clean out the silt and hogfuel in the wetland with no penalties. What the Colonel doesn't realize is construction of the Parking Lot Project is in 3 phases. Phase 1 and 2 are about done. Phase 3 includes completely destroying and filling in the 2 wetlands in question. (And they are 20 feet above the aquifer.) See attached map.

After listening to hours of public testimony, it seems advisable to clarify certain points.

1 1. The Canada geese population continues to increase in our area. Their main habitat is salt water (Puget Sound) and not fresh water wetlands.

2 2. Miller Creek and Des Moines Creek were the 2 streams mentioned at the Public Hearing. Actually seven creeks are located within the wetland delineated area: Miller, Des Moines, McSorley, Barnes, Massey, Walker and Salmon. McSorley, which empties into the Sound at Saltwater Park has salmon in it.

3 3. The Public Hearing and Permit emphasize that wetlands should be removed because they attract birds. If it is true that the combination of birds and wetlands is a hazard to jets, then the Port of Seattle should have taken care of the safety problem years ago by NETTING over the wetland areas.

1' 4. Birds are a fact of life in the vicinity of Puget Sound. Bad visibility is a fact of life in the area. The best alternative to a third runway is to put the runway in the desert where there are no wetlands and fog.

Thank you for considering my comments.

Sincerely yours,

Barbara Stuhring

Barbara Stuhring

2P-37

15 April 1998

To: US Army Corps of Engineers
PO Box 3755
Seattle WA 98124-2255
Attn.: Regulatory Branch
Project manager for File Number 96-4-02325
Mr. Jonathan Freedman

cc: Permit Coordinator
Dept. of Ecology
P. O. Box 47703
Olympia, WA 98504-7703

Subject : Third Set of Comments on "Port of Seattle File Number 96-4-02325", Wetlands Permit, Notice of Application for Water Quality Certification and For Certification of Consistency with the Coastal Zone Management Program

1 These comments are in addition to those supplied at the April 9, 1996 hearing and those mailed in January of 1998. As indicated in an e-mail already sent to you, CASE would appreciate a technical forum. We can't mail our library and we would like to make sure we convey to you information on whatever subjects you have the greatest concerns. We believe that you will deny this permit if you have accurate data and realistic cost/benefit projections. Even if all the money in the FAA trust fund was diverted to this project, there still would not be enough money to fund it to completion.

This provides new barging capacity information, and summarizes the alternatives comparisons in a more succinct manner than my prior submittals.. In addition I would like to reiterate key points from the hearing:

2 1) The wildlife advisory relates to garbage landfills, not wetlands

3 2) Taxing across two live runways is far more dangerous than wetlands. The pilots association, ALPA, sent a petition earlier in the process that states they did not endorse the Third Runway due to its "marginal safety"

4 3) The required safety areas appear to be missing from the runway ends

5 4) The NPDES 24 hour max. rainfall design limit is too low

6 5) Allowing Third Runway construction <u>prior</u> to the approval of the AKART plan REQUIRED by the NPDES permit, may eliminate the possibility of implementing the DOE preferred pollution control processes such as de-icer pads.

7 6) The quantity, cost , transportation mode and schedule for fill are UNDEFINED Note, schedule impacts pollution calculations and contamination risk hazard analyses as well as cost/benefit conclusions.

Fill EIS Needed to Evaluate Feasibility of Third Runway

8 The amount of off-site fill has grown tremendously over time as potential on-site sources have been eliminated due to contamination, wetlands or deemed to be off-site. The Dept. of Natural Resources after the issuance of the SEIS revised their position on Des Moines sites 1 , 2 and 3 and now considers them to be off-site and subject to surface mining permit process. Sites 5 and 8 had already been eliminated. That leaves only site 4 which is right beside a creek. Logically, the use of on-site borrow source 4 should also be denied. **Why risk the creek for only 2.2 million cubic yards when you need more than 27 million cubic yards anyway?**

9 The real amount of fill needed is unknown for numerous reasons including (1) two undefined seismic anomalies must be removed, (2) some contaminated fill needs to be removed, (3) the unsafe retaining wall design may lead to moving highway 509 or putting a tunnel over the highway , (4) there are no provisions for pollution mitigation such as de-icers pads even thought he DOE has stated they are the best way to control de-icers and experiments to vacuum at Sea-Tac have failed. (5) there appears to be no provisions for the FAA REQUIRED safety areas, and (6) according to Univ. of Florida the EIS calculations are incorrect.

10 If trucks continue to haul at the current airport construction rate it will take over 50 years to complete the construction project. Increasing over the current rate is unrealistic considering traffic volumes, the number of truck accidents and high particulate volumes to date. The "22 week" runway safety area construction took over a year since they were only able haul 350,000 cubic yards instead of the 450,000 in 1996 as planned. **At the 1996 rate it would take over 77 years to haul 27 million cubic yards.** In 1997 they hauled more than 350,000 cubic yards but hauled to multiple locations during the wet period creating health and environmental hazards significantly greater than the year before.

Subject: Wetlands Technical Forum
Date: Sat, 11 Apr 1998 07:28:21 +0000
From: "Arlene, Derek, Joe Brown" <brownadb@gte.net>
To: "Johnathan R. Freedman" <Johnathan.R.Freedman@NWS01.usace.army.mil>
CC: Debi Wagnor <debi@oz.net>, Col Mike Rigsby <Mike.Rigsby.COL@NWS01.usace.army.mil>, Larry Candi Corvari <corvari@ricochet.net>, Tom Mueller <Thomas.F.Mueller@NWS01.usace.army.mil>, Al Furney <rcaa@blaze.accessone.com>

Thank you for arranging the 4 hour April 9 public hearing regarding the Sea-Tac wetlands.

The Col suggested I contact you regarding setting up a time for several key CASE/RCAA members to meet with the Col and Corp staff to discuss our data. The Port of Seattle, DOE and EPA may want to send a representative also.

Could you please send me a couple of potential time slots available so we can get back to you with a firm date? It would be best if we could meet before before the public comment session ends.

April 27 I am tied up with a government Integrated Baseline Review audit so I'd appreciate it greatly if you would not schedule this meeting during business hours on that day.

I've copied this e-mail to the RCAA President Al Furney, Citizens Aviation Watch VP Debi Wagner, and Co-Presidents of CASE, Larry and Candi Corvari. Attached you will find the web addresses for some organizations are concerned with this issue.

Thank you again,
Arlene Brown
brownadb@gte.net
Pager (206)654-1533 Home (206)431-8693

CASE
19900 Fourth Avenue SW
Normandy Park, Washington 98166
Office (206)824-3120

US-CAW

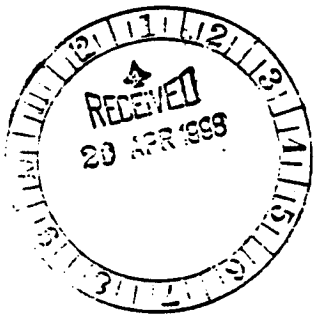
Attached URL's start here

U.S.-Citizens Aviation Watch

A national organization comprised of local airport/noise/environmental groups

"Protecting the public's health, environment, property and promoting safety."

only first page included with comments to Corp dated 4/15/98



2P-38

12512 Shorewood Drive S.W.
Seattle, WA 98146
April 15, 1998

U.S. Army Corps of Engineers
Seattle District, Regulatory Branch
Post Office Box 3755
Seattle, WA 98124-2255

To: U.S. Army Corps of Engineers,

I hope you will listen to my words. I am most concerned about the Section 404 permit for proposed construction at SeaTac International Airport. I do not want that permit granted to the Port of Seattle. Nor do I want the State Department of Ecology to issue a Washington State Water Quality certification to the airport of Seattle. Filling of wetlands without replacement in the same watershed is against local laws.

I fail to understand the intelligence used to determine that filling in wetlands for an airport runway is for the betterment of the environment. It will degrade the ecology and quality of life for all living species in the area.

I am most distressed that the Port of Seattle deems it necessary to give away our wetlands. How will flooding be controlled? How will surface drainage water be purified? How will aquifers be recharged? When our wetlands are destroyed they will never be again.

The environmental and dollar cost of this runway is prohibitive. This runway will not solve the long term solution to airport traffic in the Seattle area. Another location for a new airport would cost less and serve the area more efficiently for the future.

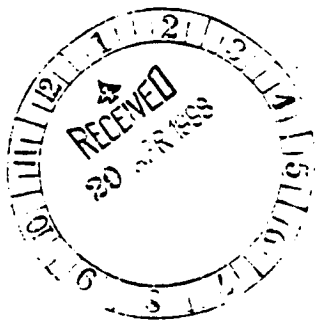
Once again, please do not issue a Section 404 permit to the Port of Seattle. Washington State Water Quality certification should also be denied by the State Department of Ecology.

Sincerely,

Jessie Murray

Jessie Murray

April 15, 1998



U.S. Army Corps of Engineers
Seattle District, Regulatory Branch
Post Office Box 3755
Seattle, Washington 98124-2255

Dear Sirs:

Thank you for granting our community the public hearing held on April 9. It was gratifying to be able to show how greatly interested and involved people are in trying to retain our present quality of life in Southwest King County. Our dense population and. actually, much of Seattle itself would be drastically affected by more air traffic than we have now if the planned 3rd Runway project goes forward.

For too long most of us have believed that powerful people are not really listening. Purely political decisions have been made in the last few years without consideration of (1) cost effectiveness of this airport expansion project and (2) environmental destruction.

First, cost effectiveness. At almost one billion dollars for the proposed runway alone (not including mitigation or new terminal or parking garages) it will be the most expensive runway ever built in the United States. After completion in 2005, this dependent runway would be obsolete by 2020 by the Port of Seattle's own estimate. An alternate new airport would then be necessary.

2 Second, environmental destruction. 170,000 people live near and drink the water under and breathe the air over Sea-Tac Airport. This, of course, is the subject of your investigation right now.

I want to make one more point, a small one admittedly, about the hearing on April 9th. One person who testified in favor of granting the 404 permit was a representative of the Mario Segale Company. (He identified himself as such.) Segale's company is in line to make a fortune hauling dirt and fill for three years for this project. Only someone from this area would know this fact.

Thanks again for listening to us.

Sincerely yours,

Dorothy Tarbet

Dorothy Tarbet
11973 Marine View Dr.,SW
Seattle, WA 98146

2P-40

2127 SW 162nd St
Seattle, WA 98166
April 16, 1998

US Army Corps of Engineers
Regulatory Branch
Post Office Box 3755
Seattle WA 98124-2255
ATTN: Jonathan Freedman, Project Manager

Reference: 96-4-02325

Dear Johathan Freedman:

I am writing to add my voice to all those who provided an enormous amount of compelling testimony at the Hearing of April 9, 1998 at the Boston Performing Arts Center in support of your denial of a permit to the Port of Seattle for the filling (destroying) of over eleven acres of wetlands and the re-routing of Miller Creek. I, too, strongly urge you to deny the permit under Section 404 of the Clean Water Act.

1 The specific issue I want to raise is really a question. The Port of Seattle is cutting down trees and destroying vegetation in the Miller Creek watershed. They are moving ahead on land they already own but don't they need a permit to carry out this activity? How can they proceed to destroy tree cover and other vegetation in Creek and wetland areas without a permit? Aren't they acting "above the law" in this case? I welcome your response.

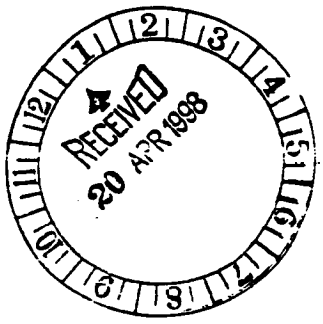
Thank you.

Sincerely,

Sally Mackey
Sally Mackey

cc. WA St DOE - Jim Luster

AR 036619



2P-41

REF. 96-4-02325

April 16, 1998

Memo to: U.S. Army Corps of Engineers
From: Marjorie and Lawrence O'Neill
Re: Port of Seattle's Request to Destroy Wetlands

My husband and I hope that you will deny the Port's request; as my husband states regarding the wetlands - KEEP THEM WET! We were unable to stay long enough at the public hearing to make a statement in person and do not pretend to be technical experts, but we do know what we have observed since moving to Des Moines in 1976.

1 We have seen Massey Creek (runs parallel to Des Moines Creek but south of the city) deteriorate due to construction restricting the water flow. Correspondingly, salmon have disappeared from the creek and quail, grouse, pheasant and red fox have vanished from the adjacent areas. We used to have mallard ducks stop by for awhile every spring and raccoons were frequent visitors. Songbirds have become scarce. I have not seen a Bullock's Oriole nor a Downey Woodpecker in our fruit trees for many years; even the swallows and garter snakes have left the yard. All of these wildlife disappearances seem to be related directly to the man-made changes to the creek.

2 While it would be nice to have a wetland returned to the Auburn area, I believe the mitigation site is too far inland to be a substitute for wetlands nearer the Sound.

Also, our area of King County is riddled with underground springs. I am aware of many unsuccessful attempts to divert this groundwater, which reminds me of problems across the United States, and on a much larger scale, created when man attempted to change the flow of rivers or interferred with other long-standing natural water sources.

By the 1980's, our country had lost over 80% of its original wetlands; we need to recreate or replace more of those and can afford to lose no more.

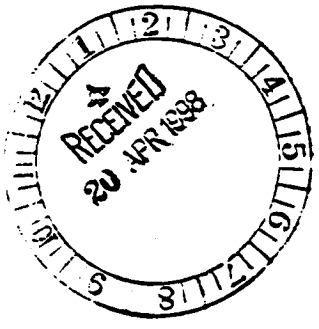
Although the Public Notice of Application for Permit reflects much work and time invested, we hope these engineering skills will be applied elsewhere, hopefully on a project which will restore some environmental integrity to an area instead of destroying it.

Marjorie O'Neill
908 S. 231st Place
Des Moines, WA 98198

cc: Washington State Department of Ecology
RCAA

James A. Rymsza
Architect

4/16/98



Regulatory Branch
US ARMY Corps of Engineers
Box 3755
Seattle, Washington 98124-2255
Att'n Jonathan Freedman, Project Manager

Dear Sir:

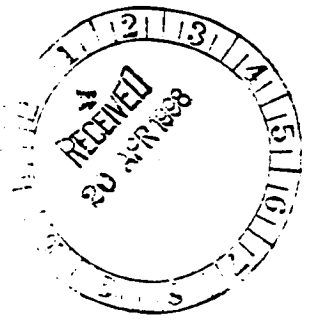
The Permit requested by the Port of Seattle for permission to destroy wetlands and creek beds for airport expansion should be denied. No benefit from this project could possibly justify the damage to our County in loss of these water and wildlife resources. The Federal, State, County and City government are all appropriately concerned about water and fish resources at this time (note message from Mayor Schell and City Council Members quoted in the Seattle Times 4/15/98, pg B2 saying city should take the lead in saving salmon and water). As our protectors of these resources, deny this permit.

Sincerely,

James A. Rymsza

6823 30th Avenue NE Seattle, Washington 98115 206-526-0707

2P-43



April 16, 1998

From: Barbara Stuhring
24828 9th Pl. S.
Des Moines, WA 98198

To: Thomas Mueller
Corps of Engineers
P.O. Box 3755
Seattle, WA 98124

Subject: Sea Tac Airport's North Employee Parking Lot and Wetlands

Dear Mr. Mueller:

Thank you for the March 30th letter written by Mr. Martin and with your signature.

Finally, thanks to the map you enclosed with your letter, the wetlands have been delineated in the North Parking Lot project. During Phase 3 (the last phase) of the parking lot construction project, these 2 wetlands will be filled and covered with impervious surface in order to provide parking for 700 cars.

Please add these 2 wetlands to the total number indicated in the Port's permit application to the Corps.

Sincerely yours,

Barbara Stuhring

Barbara Stuhring

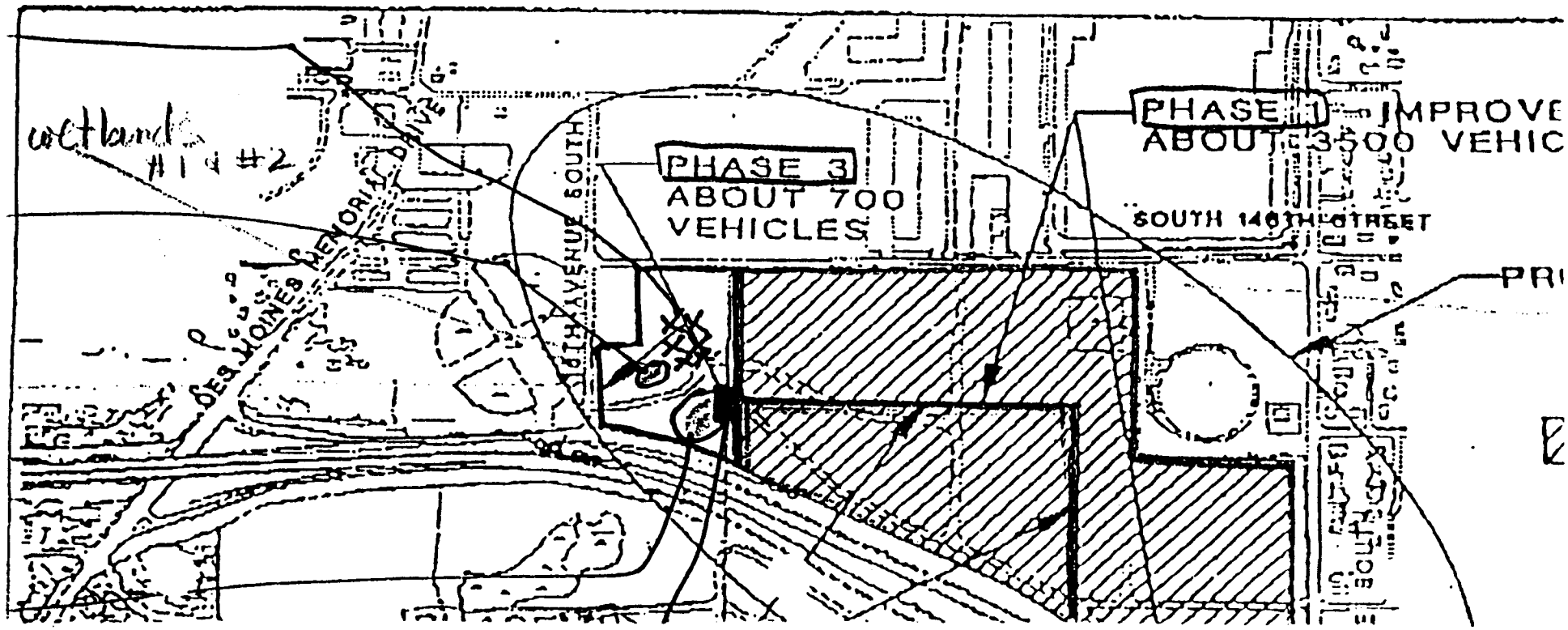
Encl: map, agreement, description of wetlands

cc: Jonathan Freedman

-31-97 10:39 PM CASE 2065298407

Parking lot - to be done in 3 phases.

Please mark wetlands, mark silt fences, mark trimmed trees.
If you have a better map, I would appreciate receiving it.



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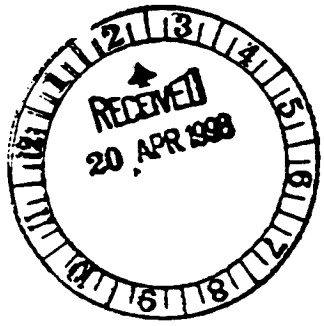


April 17, 1998

Colonel Mike Rigsby
Seattle District Commander
Army Corps of Engineers
4735 East Marginal Way South
Seattle, WA 98134

Dear Colonel Rigsby,

Thank you for receiving citizen input about the Port of Seattle's permit application to fill/remove wetlands.

I live west of Sea-Tac Airport on a seldom mentioned salmon bearing "unbody" of water named Walker Creek. Though it does not have enough C.F.S. of stream flow to be considered a stream, it has supported a small run of silver salmon since 1984 when we moved into the area. I am told by people who grew up here that both Walker and Miller Creeks had Steelhead and Chinook Salmon twenty and thirty years ago.

1 The proposed wetland fill area would affect the headwaters of Walker Creek. Probable effects are silting, increased surface runoff, de-icing fluid runoff, flooding, and loss of habitat for fish, beavers, birds, foxes, and other wildlife.

2 The poor salmon have such a tough time as it is; it seems like such a shame to decimate habitat to solve a problem that the regions elected leaders did not have the courage to solve more creatively. In some early snow years, the ethylene glycol runoff caused some salmon in Miller Creek to die before they could spawn.

From our home, we can look through the trees, across Walker and Miller Creeks to an eagle's nest. What a thrill to have our national bird nesting so close.

I don't envy the difficulty and sensitivity of the decision you are being asked to make. Please have the courage to make the best professional decision.

Sincerely,

Steve Backstrom
856 S.W. 174TH
NORMANDY PARK, WA 98166
253-395-1619(WK)

Earle M. Jorgensen Company

22011 76th Avenue South
Kent, WA 98032

Steve Backstrom
Sales Representative

Tel: 253.872.0100
Fax: 253.872.8552
Nat: 800.323.5852

wetland #1 4,000 sq ft.
" #2 34,848 sq. ft.

I. INTRODUCTION

Wetlands provide hydrologic and biological functions that are considered important to human health, safety, and welfare. Hydrologic functions provided by wetlands include: flood or stormwater storage; water quality enhancement by filtering out pollutants; groundwater aquifer recharge; and floodwater energy dissipation. Biological functions of wetlands include providing breeding, feeding, nesting, and resting habitat for fish and wildlife species, as well as nutrient retention and detention. Different classifications of wetlands are generally considered to be better suited to provide different wetland functions. Forested and scrub-shrub wetlands are usually considered to provide greater flood energy dissipation and wildlife nesting habitat than that provided by emergent wetlands. Emergent wetlands are generally considered to provide greater water quality improvement functions and wildlife feeding opportunities than other wetland types. Open water wetlands are usually associated with groundwater recharge and fish habitat functions.

II. PROJECT AREA DESCRIPTIONS

General wetland functions that have been identified for wetlands in the vicinity of the Seattle-Tacoma International Airport are as follows:

Wetland 1: Forested Wetland in the Warehouse/Parking Area

This forested wetland provides habitat for small birds and mammals as well as flood energy dissipation functions.

Wetland 2: Forested and Emergent Wetland in the Warehouse/Parking Area

The forested portions of this wetland provide floodwater energy dissipation functions and habitat for small birds and mammals. Emergent areas of this wetland provide stormwater storage and water quality improvement functions.

Wetland 3: Forested Wetland in Borrow Area 8

This forested wetland provides floodwater energy dissipation, water quality enhancement, and stormwater storage functions in addition to wildlife habitat functions.

Wetland 4: Forested Wetland in Borrow Area 8

This wetland provides floodwater attenuation, water quality enhancement, and stormwater storage functions. This wetland also provides wildlife habitat.

Wetland 5: Forested Wetland in Borrow Area 8

Floodwater attenuation, stormwater storage, groundwater discharge, and wildlife habitat are the principal wetland functions provided by this area.

Wetland 6: Scrub-shrub Wetland in Borrow Area 8

Wetland 6 provides stormwater storage, floodwater attenuation, and wildlife habitat functions.

Wetland 7: Forested, Open Water, and Emergent Wetland in Borrow Area 8

Stormwater storage, groundwater recharge, water quality enhancement, and waterfowl habitat are the principal wetland functions associated with Wetland 7.

Wetland Descriptions

North Borrow Area Wetlands

Fourteen wetlands were delineated in the north borrow area during December 1994. Wetlands located in the southern portion of north borrow area are part of the Lake Reba wetlands complex. Most of the wetlands in this area are separated from each other by roadway fill. Culverts convey water generally to the west from one wetland to another. Lake Reba is located in the center of this complex. Lora Lake (not delineated) is at the western end of the complex. Miller Creek flows south and then west through the complex. The portion of the north borrow area, north of SR 518, contains two wetlands in its southwest corner.

Wetland 1 is located north of SR 518 in the west-central portion of the north borrow area. It is approximately 4,000 square feet in size and would be classified under the U.S. Fish and Wildlife Survey classification system (Cowardin, et al., 1979) as palustrine forested, broad-leaved deciduous, saturated. It is bounded on the south by a road and on the north by fill. The wetland is dominated by black cottonwood in the overstory. Red alder and willow also are present. The understory is dominated by blackberry and Douglas spirea. Reed canarygrass and soft rush grow in the forb layer. Soils consist of very dark brown (10YR 2/2) loam overlying very dark grayish brown (10YR 3/2) gravelly sandy loam. Dark brown (7.5YR 3/3) mottles are present in the subsoil. At the time of the field investigation (December 6, 1994), water was seeping into the soil pit along a cemented soil layer at 16 inches below the surface.

Wetland 2 occupies a depression north of SR 518 in the north borrow area. It is approximately 0.8 acre in size and would be classified as a palustrine forested, broad-leaved deciduous, emergent, saturated system. The forested portions of the wetland are dominated by a mixture of black cottonwood, red alder, and willow. The understory is dominated by patches of spirea, Himalayan blackberry, and willow shrubs. Bentgrass, Watson's willow-herb, soft rush, swordfern, and sedge grow in the forb layer. The emergent area of the wetland is dominated by reed ca rygrass. Cattail grows in the lowest portions of the wetland and soft rush grows throughout. Himalayan blackberry hedges define the boundary of the emergent areas. Soils consist of dark brown (10YR 3/3) gravely sandy loam overlying gray (5Y 5/1) sandy loam with gravels. Yellowish brown (10YR 5/8) mottles and oxidized rhizospheres occur in the subsoil. Soils in the lowest portions of the wetland were saturated to the surface at the time of the investigation (December 6, 1994).

Wetland 3 is located near the southeast corner of the north borrow area and is the easternmost wetland in the Lake Reba complex. This wetland would classify as palustrine forested, broad-leaved deciduous, seasonally flooded. The wetland is approximately 0.9 acre in size. It is bounded on its eastern side by a relatively steep embankment and on its west side by a service road. Willow dominates the overstory. Black cottonwood and red alder are additional components of the overstory. Himalayan blackberry, willow shrubs, red alder saplings, salmonberry, and Pacific blackberry grow in the understory. The forb layer is dominated by horsetail. Associated species include reed canarygrass, bittersweet nightshade, creeping buttercup, lady-fern, and swordfern. Soils consist of dark grayish brown (2.5Y 4/2) sand; which becomes gleyed at 32 inches below the ground surface. The sandy surface material apparently has washed down from a sand stock-pile upslope to the east of the wetland. Soils in the lower area to the north consist of mucks and mineral soil. A 36-inch culvert conveys water from the north AOA to the southern tip of the wetland and a 60-inch culvert conveys water from the hill (to the east) to the southeast corner of the wetland. A channel along the western side of the wetland at the base of the road carries water to two 5-foot outlet culverts, one of which is filled with sediment. The operational culvert conveys water to Wetland 4. At the time of the investigation (December 7, 1994) flows in the channel were about 4 inches wide and 1 inch deep.

City of Sea Tac and Port Agreement

because of the presence of an extensive layer of low-permeability till underlying the site: and

WHEREAS the City has reviewed the results of these studies and chosen to enter into this Agreement; and

WHEREAS the Port has informed the City that during construction, materials deposited by construction equipment such as fuel, oil, lubricants and dirt may be picked up by runoff and enter the storm water collection system, and that following construction there is a potential for oil, grease, fuel hydrocarbons, particulates and other materials deposited by vehicles to be picked up by runoff and flow to surface waters (Miller Creek); and

WHEREAS both parties recognize that the Port has agreed to provide mitigation measures that potentially exceed its legal obligations; and

WHEREAS the protection of the public drinking water resource from any adverse impact from the Project is of paramount importance to both the City and the Port, and both are committed to provision of mitigation measures which will protect ground water and surface water quality; and

WHEREAS the Port has represented in its environmental review documents that it will undertake certain mitigation measures in developing and operating the Project; and

WHEREAS the Port plans and intends that the Project site will be used as an employee parking lot through the reasonably foreseeable future following construction;

NOW, THEREFORE, in consideration of the provisions and conditions set forth herein, it is mutually agreed by and between the City and the Port as follows:

1. General provisions -- The Port shall design, develop, and operate the Project in a manner that will result in protection of the quality of the surface water and ground water, and ultimately the Highline Aquifer. The Port agrees to take all measures necessary to accomplish that goal to the satisfaction of the City, including but not limited to the measures set forth in this Agreement, which may not be exhaustive of the efforts needed. In addition to prevention, the Port is also committed to responding to the City's concerns without delay and promptly reaching a resolution that is protective of the aquifer in the event of technical evidence that the Project is having an adverse effect on the aquifer.

2. General Project Design – This Agreement addresses all three phases of the proposed parking lot. Any changes in the Port's intended use of the site will be coordinated with the City. The Port's Project design for a Phase 1 includes a 3,500 stall lot on 33-acres including grading, installation of utilities (electric, sewer, water, telephone, security systems), landscaping, bus stop shelters, storm water control systems, and off-site transportation systems. Later phases will include development on an adjacent

17-acre parcel (Phase 2, about 2,500 stalls) and an adjacent 9 acre parcel (Phase 3, about 700 stalls). The parking lot surface will consist of a compacted crushed rock base with asphalt paving and a closed underground pipe storm water conveyance system. The parking lot shall be fenced and secured from unauthorized entry. The Port shall design and implement sealing methods for all joints and pipe connections, and establish quality assurance checks during construction to confirm that sealing has been accomplished in accordance with project specifications. Unpaved portions of the Project shall be planted with landscaping including groundcovers which will reduce the potential for erosion and release of sediment from the site. During the site preparation and grading stage, the Phase 1 and Phase 2 development areas shall be surfaced with compacted crushed rock to reduce the potential for erosion.

3. Stormwater System Design – The Port shall design, develop and operate a storm water system in compliance with all applicable regulations including but not limited to the *King County Surface Water Management Design Manual* or the *Washington State Department of Ecology Surface Water Manual*. This system will collect site runoff and remove contaminants from the Project area to the greatest extent practicable. At minimum, the following features of the system shall be implemented to reduce and control impacts to surface water from site runoff.

- Storm water runoff shall be collected in a series of catch basins and slotted drains on the 50-acre site and conveyed via closed underground pipe to a large underground detention vault located on the western edge of the property.
- Storm water shall be discharged at a controlled rate from the detention vault to reduce the potential for downstream scouring and sedimentation. Discharge from the vault shall be limited to the existing rates for the 2-, 10-, and 100-year, 24-hour design storm events.
- The detention vault outlet control structure shall be designed to limit the potential for storm water containing oil to be released from the vault
- Discharge from the vault shall be controlled so that it flows into a bioswale extending about 200 feet from the vault to existing roadside ditch. The bioswale shall be designed for optimum petroleum hydrocarbon degradation, to filter and degrade pollutants in storm water before the storm water leaves the site. After flowing through the bioswale, storm water will flow into the nearby roadside ditch as it does at present, and then through culverts under SR 518 to the regional detention facility and eventually to Miller Creek.

4. Construction mitigation measures – The Port shall design, develop and implement the necessary measures to reduce to the greatest extent practicable the possibility of construction-related impacts to ground water and surface water during construction. The Port shall, at minimum:

- Prepare and implement a spill response plan. Development of such plan may be accomplished by a contractor. This plan shall provide that any significant spills shall be reported immediately to the City. Significant spills will include primarily those

April 17, 1998

Patty & Charles Burgess:
2111 S.W. 174th
Burien WA 98166
(206) 242-7857

Local citizen who could not attend the hearing called to submit comment.

1

1. Concerned about Miller Creek estuary: decimated by runoff/sludge from airport on heavy rains. Brown water clear to Vashon Island. She has testified to the Port about this. Fishing grounds for Suquamish, geese arrive in spring, there are also salmon in Miller Creek.

2. She lives on the shore. Heron rooks and cormorants hang out on old pilings. She could count 25 ducks, 50 geese, 100 gulls, a feeding heron, cormorant as we spoke,

2

3. Impacts are irreversible. She asked if Miller Creek would still flow. I said if impacts were that severe, they were unacceptable to us.

4. Port lied to residents in 1970. DOE has not enforced their permits. She called them the Department of Apology. I told her that the comments she gave are a part of the record and thanked her.

Jonathan Freedman
Project Manager

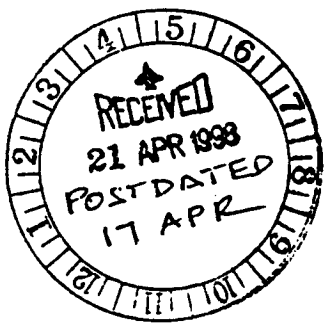
Regulatory Branch
US ARMY Corps of Engineers
Box 3755
Seattle, Washington 98124-2255
Att'n Jonathan Freedman, Project Manager

Dear Sir:

The Permit requested by the Port of Seattle for permission to destroy wetlands and creek beds for airport expansion should be denied. No benefit from this project could possibly justify the damage to our County in loss of these water and wildlife resources. The Federal, State, County and City government are all appropriately concerned about water and fish resources at this time (note message from Mayor Schell and City Council Members quoted in the Seattle Times 4/15/98, pg B2 saying city should take the lead in saving salmon and water). As our protectors of these resources, deny this permit.

Sincerely,

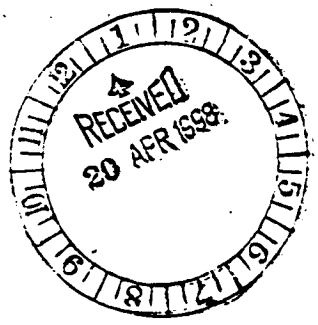
Albert Kaufman
3308 19th Ave. S.
Seattle, WA 98144
206-722-2256
woza1@aol.com



April 17, 1998

2P-47

Mr. Jonathan Freedman
U.S. Army Corp of Engineers
Concerning File # 96-4-02325



Dear Sir:

Water is a precious Commodity
We have been cautioned to use it wisely.
Airport pollution is Contaminating the aquifer and recharge area.

1 How long will it take for the Gly Cole and any other Contaminates to reach the well heads where we get part of our water supply?

There is a sewer interceptor line by Laura Lake and abt 168th St So. I understand the port plans to deposit fill dirt within 50 to 100 ft of this pipeline. I've been told the pipe is resting on

2 Solid ground but is Covered with wetlands material Can we be assured that the pressure of dumping that fill dirt will not dislodge or damage that pipe in any way? Could the pipe float or break from the disturbance - possibly adding sewage to the other Contaminates already there?

3 Can damage to the aquifer and recharge area have an affect on Angle Lake?

Disregarding the value of Miller, Walker & Des Moines Creeks for fish reproduction is a terrible mistake.

2 Would enhancing and reestablishing these streams and others around Puget Sound be the place to start right away while more
4 complex plans and decisions are being worked out for the rivers?

5 What has happened to the frogs that were in Jub Lake? They are gone! — even the deformed ones!

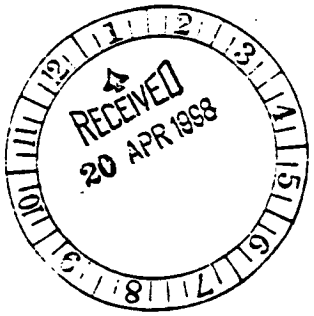
6 Now, after all these years, it's been decided that birds are dangerous to the airport. Birds were here before the port was ever built! They should have taken that into consideration in the first place. Will moving the wetlands and birds to Auburn have an affect on their local airport?

We gave our children lots to build their homes on so they could raise their families here as we have so happily done during the last forty seven years.

Please protect us and our natural wetlands. We don't want our offspring to live in an area without trees, birds, frogs, fish and water to drink.

Thank you,

Mrs Joseph Pompeo
434 SW 186th St
Seattle Wa. 98166-3960
(N.P.)



4-17-98

SEATTLE DISTRICT COMMANDER
U.S. ARMY CORPS OF ENGINEERS
COL. JAMES M. RIGSBY

DEAR SIR:

1 I AM WRITING TO URGE YOU TO DENY THE REQUEST FROM THE PORT OF SEATTLE TO REMOVE THE WETLANDS NEAR THE AIRPORT. I BELIEVE THE ISSUE IS THE FACT THAT THESE ARE EXISTING WETLANDS. I'VE LIVED IN THE SEATTLE AREA MOST OF MY LIFE AND HAVE SEEN EVERYTHING PAVED OVER. THE PORT HAS RUN ROUGHSHOD OVER THE CITIZENS IN THE AREA, AND YOU ARE THE ONLY DEFENSE FOR THE LITTLE REMAINING WILDLIFE. I REALIZE THE PORT CAN BRING A GREAT DEAL OF PRESSURE ON ANY AGENCY, BUT I AM HOPING YOU WILL BE ABLE TO STAND FIRM AND DENY THIS PERMIT. I ALSO BELIEVE IT IS THE CORRECT DECISION TO STOP THE ERODING OF ENVIRONMENTAL LAWS. THE PORT IS NOTHING BUT BIG BUSINESS.

THANK YOU FOR YOUR ATTENTION;

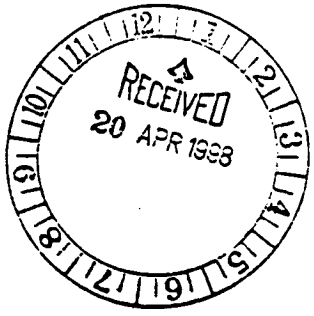
Deloris J. Voyvodich

DELORIS J. VOYVODICH
1236 S. 128TH ST.
SEATTLE WA. 98168
206-246-2416

Henry R. Hopkins, P.E.
3720 Serene Way
Lynnwood, WA 98037
Phone: 425-743-4245
Fax: 435-743-0328

2P-49

April 18, 1998



Mr. Jonathan R. Freedman
Project Manager
Regulatory Branch
U.S. Army Corps of Engineers
4735 E. Marginal Way South
Seattle, WA 98124-2255

RE: PERMIT FOR 3rd RUNWAY PROJECT
SEATTLE-TACOMA INTERNATIONAL AIRPORT

Dear Mr. Freedman,

This letter is my comment on the subject project. I am a licensed civil engineer with 30 years experience as CEO of an engineering-construction firm which has constructed large earthmoving and building projects in the Northwest and in other countries.

The Port of Seattle has submitted an application for a permit from the Corps of Engineers for the Sea Tac Airport project. This project is comprised of several major elements. Each of these elements; such as, the 3rd runway would normally be treated as a project itself. Elements including the new terminal construction, runway, and other facilities are described in the EIS and SEIS.

1 The Port of Seattle has completed the final EIS and SEIS. These identify 26 million cubic yards of material required for the entire project, of which 17 million cubic yards are needed for the runway fill only. It might be helpful to include or use the amount of materials required for the entire project in your analysis.

The Corps of Engineers has held a public meeting on April 9, 1998 and is currently conducting review of the Port's application for permit. The Corps has stated that a complete analysis of the project including all cumulative impacts described in Section 320.4 "General policies for evaluating permit applications"; including but not limited to, safety, general environmental concerns, wetlands, economic, construction disruption, time and others will be completed.

2 The following information is offered for consideration in the public interest, as well as the impacts involving wetlands on site. There are some wetlands involved with proposed borrow sites located on-site in addition to the filling of wetlands for the runway. There is an alternative to the proposed truck importation of fill materials which would reduce safety hazards to the public, minimize general environmental concerns, conserve wetlands, have more favorable economics, reduce the construction disruption and shorten project time. This alternative is the use of a temporary conveyor belt along the Midway Sewer District's existing pipe from Sea Tac to Puget Sound. Specifics of this alternative are:

Henry R. Hopkins, P.E.
3720 Serene Way
Lynnwood, WA 98037
Phone: 425-743-4245 Fax: 435-743-0328

ALTERNATIVE-CONVEYOR DES MOINES

CONVEYOR ALTERNATIVE EIS

The City of Des Moines is preparing an EIS for the conveyor alternative and expects to have the FEIS completed in July of 1998.

Time for Construction--Shortened with Barge-Conveyor System-- If the on-site borrow material with clay or Glacial Till with more than 5% passing #200 Sieve is used, the time for placing and compacting to specification will be considerably longer than all-weather material imported by conveyor. The barge-conveyor by way of Des Moines will provide an all weather material which yields a shorter construction schedule and superior quality of completed structural embankment. Conveyor saves 2 years.

Safety--If the Port would use the barge-conveyor alternative through Des Moines as described herein, the issue of trucks and traffic is removed. Using statistics for trucks on highways, it is projected that 18-20 injuries or deaths will result from the truck alternative. Conveyor eliminates these injuries and deaths.

Project Cost Savings--The evaluation portion of the COE permit process identifies economic impacts as a part of "cumulative impacts" in addition to many other factors described in Sec 320.4. Please refer to the next section "Economic Impact" for additional cost savings not described in this section

On-site borrow is proposed to be used. The Des Moines conveyor would provide material as a part of the whole project need much more economically than on-site borrow. The conveyor's fixed cost becomes important to quantities to be moved over the system. Assuming the on-site borrow quantity of 8 million cubic yards, the question becomes can the conveyor provide material at lower cost? Yes.

First, the direct cost of transportation of materials to the embankment area and compaction by conveyor are dependent upon number of cubic yards or tons moved. The quantity of 27 million tons (about 14 million cubic yards) provides a much less costly transport cost than trucks. The cost comparison in the study, "Fill Material Alternative Delivery Method Study for Third Runway-Phase 1 Seattle Tacoma International Airport" indicates the conveyor to be economical. Refer to attached "Table 2 Economic Feasibility.

Second, direct repairs of "physical damage" to roads are estimated to be $186 million which equals $13.29 per cubic yard.

April 18, 1998

U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

Re: Port of Seattle Wetlands Permit Application, Sec. 404 (b)(1)

Attention: Col. Mike Rigsby, Seattle District Commander

Dear Col. Rigsby:

Sea-Tac Airport has constructed a waterproof concrete structure over some of their real estate, and intends additional expansion. This roofing will never purify water, be a storage cistern, provide flood control, or furnish clean water for humans and wildlife. The water runoff from Sea-Tac Airport has polluted the aquifer beneath the airport - the same aquifer from which our communities get their water supply. Sea-Tac runoff also flows into a natural wetland which contains cattails, rushes, sedges, grasses, willows and alders in a swampland with millions of tiny living organisms that provide us with an urgently needed water resource. This wetland has existed for centuries, set in a specific location, providing layers of natural pollutant strainers and an organic sponge which cleans and stores our diminishing water resource.

Some assume that this wetland harbors ducks which endanger flying aircraft. As a result, they advocate destruction of the ecosystem. This wetland does NOT support a threatening duck, crow or seagull population. The birds that I have been able to track, fly from Puget Sound to Angle Lake. I have never heard of any waterfowl/aircraft collisions - nor heard explosive charges (Common at Boeing Field International) to discourage ducks at Sea-Tac Airport. I do not advocate destroying Puget Sound or Angle Lake because of their duck population.

I was pleased to review the U.S. Army Corps of Engineers' "Service to the Nation" brochure, and its pledge concerning preservation and protection of wetlands. It fortifies both Vice President Gore's and my opinion on wetland preservation. King County is rapidly growing in population. As a result, our need for water increases; preservation is crucial. The Sammamish Plateau and the Covington area are already

experiencing water shortages. I urge the U.S. Army Corps of Engineers to protect and not destroy this wetland.

It is impossible to "relocate" a wetland to a completely different watershed and consider it mitigation for the loss of wetland in the original watershed; such reasoning is folly. A wetland filled in the guise of relocation will only remove its existence. Man and his machinery do not belong on wetlands. Please heed Oregon's warning concerning destruction of the Willamette River and Valley, and their effort now to rebuild what has been destroyed. Don't destroy our wetlands.

In conclusion, what cost-effective study alternatives do you have to avoid wetland destruction? I recommend adherence to your pledge to protect wetlands. Do not allow the power of commercial enterprise to taint your decision. Please reject the Section 404 (b)(1) permit submitted by the Port of Seattle.

Sincerely,

Russell R. Richter
711 SW 187 Street
Normandy Park, WA 98166

c: Governor Gary Lock
U.S. Senator Patty Murray
U.S. Senator Slade Gorton
U.S. Representative Adam Smith
State Senator Julia Patterson
State Representative Karen Keiser
State Representative Jim McCune
U.S. Environmental Protection Agency
State Department of Ecology

FAX

Saturday, April 18, 1998

To: Jonathan Freedman Tel: (206) 764-3742 FAX: (206) 764-6602
Corps of Engineers

From: Henry A. Shomber Tel: (206) 878-7687 FAX: (206) 878-7687
[voice contact first]

Subject: Comment on Port of Seattle Request to Move Wetlands

Dear Sir,

I understand that the Port of Seattle has requested a permit to allow them to fill a wetland that lies to the west of the existing runways – and to create a "replacement wetland" in a totally different drainage – in order to make space for the addition of a third runway to Sea Tac Airport.

I strongly urge the Corps to deny this request for such a permit.

The wetlands provide a number of functions that are important to the properties that lie "downstream" of the airport, and to the water systems that finally enter Puget Sound.

The water retention function of these wetlands provides protection against some high water – with associated erosion and flooding in the Miller and Des Moines creek drainage systems – following heavy rains or rapid snow melt. The Port claims that it will relocate and "improve" these drainages, and they will take special care to make certain that runoff is controlled. They have repeatedly demonstrated their inability to take even modest steps toward protecting these drainages against spills and silt laden runoff –most recently in the construction of the employee parking lot at the North end of the airport. Why should you presume that they would suddenly become capable of protecting these drainages when there would be even less water retention capability following the removal of the wetlands and the increase in impervious surfaces with the addition of the third runway and associated taxiways?

The water cleansing function of these wetlands is also an important part of the West Side drainage from Sea Tac Airport. Their elimination would mean that

most likely more contaminated fluids from spills - and rain "flushing the airport" and carrying away the normal tire particles (carbon) and oil debris from the airport operation – would find their way quickly down the "new" Miller and Des Moines creeks into Puget Sound. Again the Port has repeatedly demonstrated their inability to manage the spills associated with the operation of Sea Tac Airport – so we should not presume that they could do any better job of protecting Miller and Des Moines creeks and Puget Sound, when there would be even less of a natural "filter" between the airport and the Sound.

I strongly urge that the Corps of Engineers DENY the Port of Seattle request for a permit to fill the subject wetlands.

Thank you,

Henry A. Shomber

19229 Edgecliff Dr. SW

Normandy Park, WA 98166-3827

Tel: 206-878-7687

E-mail: Shomber@Prodigy.Net

2P-52

Arunkumar (Arun) G. Jhaveri
Technology/Management Consultant
International Relations Advisor
1250 SW 152nd Street
BURIENWA 98166 U.S.A.
Phone: (206) 243-2102

April 18, 1998

Colonel Mike Rigsby, District Engineer
U. S. Army Corps of Engineers - Seattle District
Federal Center South ; East Marginal Way South
P. O. Box C-3755
Seattle, Washington 98124-2255

SUBJECT: Wetlands Permit @ Sea-Tac Int'l Airport/Third Runway

Dear Col. Rigsby:

I take this opportunity to provide my comments on the subject matter. I understand the deadline for submitting these comments is April 20.

Before you make an independent judgement & decision to whether grant the subject permit to the Port of Seattle, please review the following comments from three(3) separate but critical perspectives, namely, a) Philosophical/Jurisdictional, b) Socio/economic, c) Technical/ Environmental, as they relate to the proposed Third Runway:

a) Philosophical/Jurisdictional: No special purpose limited government like the Port of Seattle should be able to dictate its parochial positions on the general purpose governments such as the bonafide Cities/Communities, particularly when the majority of thse local jurisdictions oppose the proposed plans of action(e.g. wetlands). Such unilateral actions, if allowed, could set an unconstitutional precedent vis-a-vis the State of Washington's Growth Management Act.

2 b) Socio/Economic: No convincing arguments have been put forward by the Port of Seattle that shows the net benefits(cost, community-development and/or social justice), based on life-cycle-cost analysis, of the proposed destruction of the existing wetlands near the Sea-Tac Airport and creating a new wetlands area in or near the City of Auburn. In addition to the non-compliance with the Section 404 of the Federal Clean Water Act, the subject project must also comply with the State

3 Department of Ecology(Washington State) & Department of Natural Resources(DNR) laws & regulations, because any new wetlands created in the Auburn area will be outside the Port & FAA's jurisdictions, thus advesely impacting the socio/economic conditions of local masses.

4 c) Technical/Environmental: Because of the significant adverse impacts of the proposed Third Runway, in general, and the proposed new Wetlands, in particular, an independent site-specific Environmental Impact Statement (EIS) must be prepared that meets the stringent requirements of the laws. Neither the Port nor the FAA should be allowed to influence the outcome. In addition, the final recommendation should be based on the public opinion, namely, those residents who would be directly impacted.

In summary, based on the above, the subject permit must not be issued by the Corps of Engineers at this time on this significant action.

Sincerely, Arun Jhaveri, Former Mayor of the City of Burien.

AR 036640

Region needs more airports

By Aran Jhaveri
SPECIAL TO THE TIMES-NEWS

It's encouraging to see that former state government officials like Governor Booth Gardner felt strongly about expressing his opinion on the need for the proposed third runway at Sea-Tac International Airport, a multi-billion dollar public works project. Let me point out some of the critical issues and facts that must be seriously considered before any final determination is made by the region on the need for this most expensive runway in the United States.

Everyone agrees that the current two-runway system at Sea-Tac must be maintained as a world class airport with maxiumum efficiency, quality and passenger-friendly facility. The Sea-Tac airport should actively continue to significantly reduce the detrimental community noise, environmental degradation (air and water quality), socio-economic deterioration, and reduced property values.

Do we really need to spend between $3 to 4-billion on the proposed third runway knowing fully well that it will become osbolete as soon as it becomes operational, sometime around year 2005. We can use these hard to obtain taxpayer resources instead to improve our currently serious traffic congestion problems in western Washington.

As Governor Gardner can attest, many metropolitan areas within the United States and abroad use a multiple airport system to solve their rapidly increasing air capacity problems, similar to those experienced by our region. Examples include multiple airports network in San Francisco, Los Angeles, Chicago, Washington D. C., London, Paris, Tokyo/Osaka, etc. These successful sustainable airport systems are based on decentralization of air traffic including passenger, cargo and general aviation.

Instead of building a multi-billion dollar third runway, we must beneficially take advantage of our existing unused or underused regional airport system, including Paine Field in the north (Snohomish Co.), McChord Air Force Base and/or Gray Field at Ft. Lewis airport as a potential joint military/civilian operation in the south (Pierce Co.), and Moses Lake airport in Ephrata, (currently used for cargo). Not only would this significantly relieve the increasing air capacity pressures at Sea-Tac International Airport but also would distribute the anticipated benefits from international trade to other regions in the State of WA., a win-win situation for all. The Washington legislature can help establish a fair and equitable distribution of airport operational responsibilities among the port authorities including the Port of Seattle.

It's not too late to eliminate the need for the proposed third runway at Sea-Tac International Airport. The Sea-Tac airport director recently told the Port of Seattle Commission that the current third runway project schedule is too optimistic and should be delayed further. This delay is inevitable because of increasing inability of cost-sharing by the impacted customer airlines using Sea-Tac airport. Thus, it appears more and more clear that the proposed third runway project is unrealistic and cost-prohibitive.

It is evident that the region must immediately reconsider the proposed multi-billion dollar third runway project: whether it's needed, what other, much less expensive alternatives should be considered and to make sure that we don't repeat the Washington Public Power Supply System fiasco, which left behind billions of dollars in debt to electricity rate-payers for expensive nuclear power plants.

Let us decide on the most prudent action our region should take to respond to the ever-increasing air capacity issue. One that is realistic, cost-effective, fair, and technology-smart, so that we all can intelligently use our limited resources towards the solution of critical problems.

Aran Jhaveri is the former mayor of Burien.

Specializing in

DIVERSIONS

Juggletunes in the park

Linda Severt's Juggletunes will be at Burien Parks & Recreation for a free children's concert on Saturday, March 7, at Highline Community Center Auditorium, 425 SW 144th, from 2:00-3:00 p.m.

Juggletunes is a fast-paced, action-packed, high-energy, fun performance for all ages, featuring original music, juggling, puppetry and lots of creative audience participation. Not only has Linda Severt been performing all over the Northwest, but she's also been captivating audiences throughout the U. S. and Canada since 1987.

Whether you're seeing Juggletunes for the first time or your fourth time, you'll enjoy this fun and silly show! Space is limited so come early!

The concert is being sponsored by Burien Parks & Recreation and the King County Arts Commission. For more information about the free children's concert, please contact the Burien Parks & Recreation office at (206) 244-5662.

Opera being previ

Selections from *Flor*
Amazon , a new opera
composer Daniel Cata
view at Burien Library
March 19, 7:30 p.m.

Featuring fabulous s
lush, romantic music,
received rave reviews
formed in Houston la
Hear a preview of the
some musical selection
new opera .

The Burien Library is
14700 Sixth SW; phone:
3490 for more informati

"Luck of the Irish"

RAF Foundation and
ber Orchestra will pres
educational/community
program in conjunction
Chamber Orchestra. Th
entitled "The Luck of th
the composers and music
is designed for adult audi

Tracey Waring of the
dation, will be presentin
gram on Tuesday, March
at The Des Moines Libr
11th Ave S., Des Moi
386-4612.

What makes a community work

AR 036641

17306 21st Ave. S.W.
Seattle, Wa 98166
April 19 , 1998

Army Corps of Engineers
P.O. Box 3755
Seattle Wa. 98124

Dear Mr. Freedman and others:

1 Regarding the Ports proposal to remove the wetlands near the airport I would like to comment on what you can not see on a map. These wetlands are not an isolated bog between the Airport and a residential area! Many creeks and streamlets are fed by them. It is predicted that Miller creek would dry up if these headwaters were gone. Miller Creek is vital to this area. It is a salmon spawning ground. We have red fox and river otters living there. There is a registered heron rookery. The Bald Eagle has made a nest upstream and feeds along the creek and the estuary created by it's flow. Trading wetlands in Auburn will harm this ecosystem. There is certainly a larger picture here to be considered. Possible bird strikes near the airport is not a good trade for certain damage to an already stressed ecosystem.

Thank you for the opportunity to be heard.

Sincerely,

Jean and Greg Anderson
Phone (206) 241-0499

To : US Army Corps of Engineers
PO Box 3755
Seattle WA 98124-2255
Attn.: Regulatory Branch
Project manager for File Number 96-4-02325
Mr. Jonathan Freedman

cc : Permit Coordinator
Dept. of Ecology
P. O. Box 47703
Olympia, WA 98504-7703

Subject : Addendum to Third Set of Comments on "Port of Seattle File Number 96-4-02325", Wetlands Permit, Notice of Application for Water Quality Certification and For Certification of Consistency with the Coastal Zone Management Program

Reports I'd been expecting arrived just when I was about to mail my comments dated 15 April 1998 so I delayed to add this. These comments are also in addition to those supplied at the April 9, 1996 hearing and those mailed in January of 1998.

Based on reviewing the reports sent to me by the U.S. Geological Services (see references (a1) through (a6)) and those mentioned in my prior comments, **a DETAILED HYDROLOGY STUDY is needed prior to issuing a Water Quality Certificate or a wetlands permit. No additional stockpiling of Third Runway fill should be allowed on airport property until the environmental risks are assessed. This study should involve oversight by the US Geological Survey hydrology staff due to its developmental nature and far reaching consequences.**

Substantive Hydrology Studies Non-Existent

Substantive hydrology studies do not exist that would answer the question as to the risks of dumping over 80 billion pounds of fill on top of the existing aquifers and underground piping. Even the report whose title includes "Southwestern King County" contains very little information on wells in the impacted area. It was not a site specific study, nor was it intended to be. Data in numerous reports

needs to be combined into one report that uses the same set of units. Then a test program needs to be developed and executed to fill in the most significant data gaps. The proposed NPDES pollution studies are inadequate.

The EIS focuses on till layers functioning as boundaries rather than conductivities within aquifers. Within aquifers things travel over five times faster than in till (see Table 2 in ref. (a4)). Within the lenses in till, contamination also travels much faster. Even the number of aquifers and drinking water wells impacted is underestimated in the EIS.

Contamination Risks Underestimated

The risks of water contamination are underestimated in the project's Environmental Impact Statement. Data from a variety of reports indicate that the aquifers under Sea-Tac are vital to the health of the Des Moines Drift Plain and the area's drinking water.

Investigations Report 92-4098 indicates there are probably more aquifers under the Sea-Tac Airport than the EIS addresses.

Investigations Report 92-4098 (ref. (a6)) indicates that, in addition to the known aquifers, undifferentiated material above the bedrock exists that could contain one or more aquifers. A different Report, No 28 (ref. (a4)) shows in Plate 2 that some cities such as Federal Way have drilled into that undefined region and established the water level. I believe Federal Way now draws drinking water from that depth but there was insufficient time to confirm a retired Water Commissioner's comments on that subject. This same unconfined area is also shown under Vashon Island.

Federal Way water is at risk too but not mentioned in the EIS

- Aquifer (Vashon Advance Outwash) under Sea-Tac Airport discharges to Federal Way Hylebos Creek (ref. (a4) Luzier, Fig 20, pgs 40-42)
- Federal Way wells tap into an aquifer which extends under the Sea-Tac airport.

Aquifers under the airport discharge to the west directly into Puget Sound and discharge to the east to the Duwamish Valley (alluvial fill) (ref. (a4) Luzier, Fig 20, pgs 40-42)

Angle Lake is connected to the aquifer (ref. (a3), (a4) or (a5)) - sorry can't remember which report, the problem with reading four reports in a weekend when camping without a computer)

These aquifers are too important to limit assessments to 10 years as the EIS did, particularly, when they are based on the assumption that till "restricts the movement of pollutants". Even the EIS Chapter IV Section 10 "low hydraulic conductivities ranging from .3 to 0.00003 feet/day", doesn't seem so small when you convert it to 110 feet per year.

Chemical Reactivity Unknown

The interactions of the high iron content, hydrogen sulfide and natural gas identified in the area during drilling need to be evaluated. See ref. (a4), Table 9 Records of Wells for T22N, R4E in Luzier

The ingredients of deicers is unknown (ref.) so their pollution risks can not be assessed. If carcinogens really are an ingredient as an official in Maryland suggests (ref. (a11)) , what is the impact on the aquifers?

Contamination Rate Calculations Unconservative

The assumptions that some have made in technical discussions, in technical reports related to airport construction and the project's EIS regarding effectiveness of till to protect the aquifers are unconservative. To quote, a recent e-mail from Gary Turney, Hydrology Supervisory of the US Geological Survey, (ref. (a2)):

> *All of the aquifers and semi-confining units will be connected vertically to some degree. That degree is dependent upon the degree of transmissivity of the semi-confining units. One common misunderstanding is that semi-confining units, such as till or clays, are impermeable. Water can indeed flow through tills and clays, just much more slowly than through sands and gravels.*

a) Till layers contain lenses making it more permeable

b) Till can be fractured making it more permeable

c)There may be very limited till in some areas - see Table 10, Drillers' Logs, in Ref. (a4)

d) Map (a) of Plate 3 in Investigations Report 92-4098 (ref. (a6)) indicates the area is in close proximity to an area where the Qva and Qal aquifers are "in direct hydraulic connection, and function as one aquifer". This was not a Sea-Tac site specific report and it is possible that more direct connections may exist between aquifers under Sea-Tac than assumed.

e) Map (b) of Plate 3 in Investigation Report 92-4098 (ref. (a6)) identifies the area "where aquifers are assumed to have **high hydraulic-conductivity values**' Looking at the map, it looks like someone said, "Where should we expand to most likely contaminate the future water supply for the area. Several wells were already destroyed due to airport expansion (Luzier pg. 97 ref. (a4)).

f) The AGI report mentions discrepancies between assessments (ref. (a7).

g) EIS does not comment on documented contamination of existing aquifers

As you have probably guessed by now, I really need more public comment time.

Arlene Brown A Brown

pg A5 Another last minute addition

some engineering background. In addition there should be some preproject assessment of quality of the habitat on both Des Moines and Miller Creek so any adverse impacts from sedimentation from this project can be quantified if a major sedimentation event occurs so appropriate remedial efforts can be taken by the project proponents to restore habitat. Timing construction activities so that they are done during the months when rainfall is at a minimum would be one excellent way to alleviate water quality impacts from sediment. This would also help to insure that sediment from the construction site would not interfere with fish eggs incubating in the gravel. The HPA for both Des Moines and Miller Creek will have work window of July 15 to October 1.

4. The wetland mitigation plan will meet WDFW requirements for wetland impacts from the runway expansion. If successful the off site mitigation area with its high water table, proximity to the Green River, and the wetland mitigation plan should enhance this area for wildlife and over time mitigate for loss of wildlife habitat at the runway site. WDFW understands the need for offsite wetland mitigation for airport safety and the lack of large land areas to construct a mitigation area, however the downstream areas of both Des Moines and Miller Creek will be impacted from the loss of wetlands in their respective headwaters. I calculate approximately 4.96 acres which are portions of vetlands #3,4,5,9,13,19,23,37, and 36 that are adjacent to and flow into Miller Creek. In Des Moines Creek a total of 2.48 acres of vetland numbers 51 and 52 that are adjacent to and flow into Des Moines Creek will be impacted by the borrov area and the SASA project. Mitigation for loss of export production should be implemented above and beyond what is proposed for the Miller Creek and Des Moines Creek relocation mitigation in downstream areas of Miller and Des Moines Creeks. Mitigation could consist of LWD placement, vegetation enhancement or other habitat projects. It will be important that base flovs will not decrease as a result of loss of the vetlands. If base flov are lovered than ways should be found to supplement base flovs. In addition at the same time mitigation for local impacts to vildlife from fill in vetlands and upland areas could be done in the riparian corridor on Miller and Des Moines Creek. Projects could include, tree planting especially conifers, riparian enhancement, vildlife enhancement, and possible cooperation with City of Des Moines and Normandy Park in the restoration of the estuaries at the mouth of Des Moines and Miller Creek.

Impact on haul truck and Barge schedules? Only ~80 days instead of FEIS 270 days! Over 30 years to barge?

From WA DEPT OF FISHERIES JAN-16-1998 15:28 93% To DOE -

Additional References (Jan 8 1998 comments included extensive list)

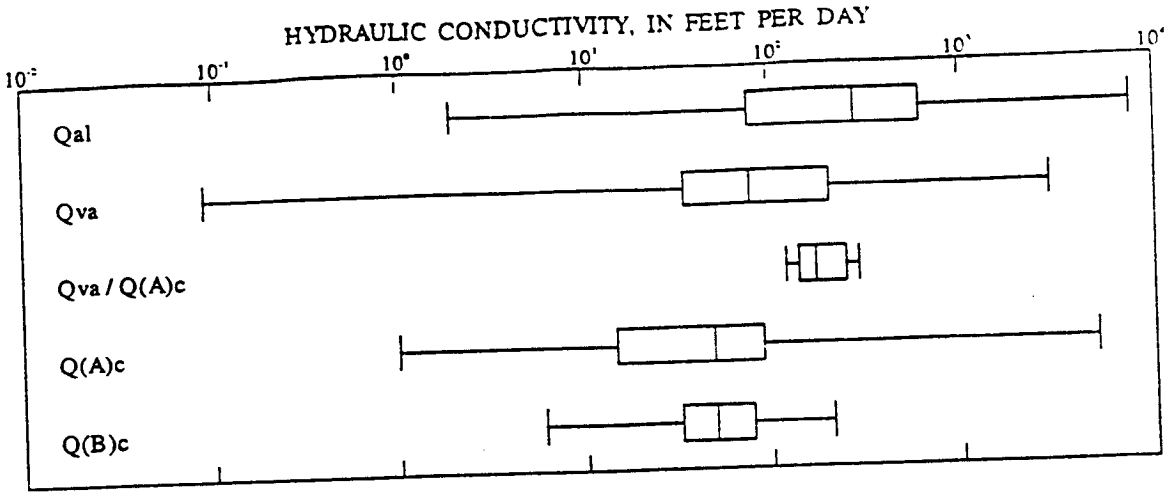
(a1) Electronic mail, A. Brown, Myrtle Jones, Hydrologist, April 16, 1998
(a2) Electronic Mail Gary Turney, Supervisory Hydrologist, April 16, 1998
(a3) Leisch, Brice A. , Price, Charles E. and Walters, Kenneth, L, Geology and Ground-Water Resources of Northwestern King County, Washington, Washington State Division of Water Resources Water Study Bulletin No. 20, 1963
(a4) Luzier J.E., Geology and Ground-Water Resources of Southwestern King County, Washington, State Dept. of Water Resources Water Supply Bulletin No. 28, 1969
(a5) Richardson, Donald, Bingham J.W. and Maddison R. J., Water Resources of King County, Washington, U.S. Geological Survey Water-Supply Paper, 1852
(a6) Woodard, D. G. Packard, F. A., Dion, N.P. and Sumioka, S.S. , Occurance and Quality of Ground Water in Southwestern King County, Washington, U. S. Geological Survey, Water- Resources Investigation Report 92-4098, 1995 (Table 2 enclosed)
(a7) AGI Project 16,116.001, Draft Groundwater Quality Impact Evaluation Proposed North Employee Parking Lot Seattle Tacoma International Airport, SeaTac Washington, AGI Technologies, 11 April 1997
(a8) AGI Project 16,116.001, Groundwater Quality Impact Evaluation Proposed North Employee Parking Lot Seattle Tacoma International Airport, SeaTac Washington, AGI Technologies, 13 June 1997
(a9) Request for Public Hearing and Comments on Port of Seattle File Number 96-4-02325", Notice of Application for Water Quality, From A. Brown, dated 8 January 1998
(a10) Wetlands/Water Hearing Comments submitted by A. Brown, April 9, 1998 (includes Sea-Tac 24 hour maximum rainfall data)
(a11) Wetlands/Water Hearing Cassette Tape, April/May 1997 Weekend Headliner: Safe Skies, Safe Water by Ross Simpson, NBC News Extra. Submitted by Debi Wagner at Hearing April 9, 1998

Also enclosed per Corp of Engineer's request:
Copy of Cutler & Stanfield comments on Air Conformity Determination. It contains the Univ of Florida fill calculations.

From Ref (a6) Occurance & Quality of Ground Water.

Table 2.--*Statistical analyses of hydraulic-conductivity values for the Quaternary aquifers in southwestern King County. (A) Box plots of, and (B) values of range and quartiles for hydraulic conductivity for all wells and for each aquifer; and (C) matrix of confidence levels for difference in median hydraulic conductivity between aquifers*

(A)



(B) HYDRAULIC CONDUCTIVITY, IN FEET PER DAY

Aquifer	Quartiles					Cases
	Low	25	50	75	High	
Qal	2	78	290	613	7,569	51
Qva	0.09	36	83	216	2,990	68
Qva / Q(A)c	127	141	174	261	298	6
Q(A)c	1	15	51	92	5,174	74
Q(B)c	6	33	51	80	201	19

(C)

	Qal	Qva	Qva / Q(A)c	Q(A)c	Q(B)c
Qal					
Qva	100				
Qva / Q(A)c	36	95			
Q(A)c	100	100	100		
Q(B)c	100	96	100	8	

AR 036649

CUTLER & STANFIELD, L.L.P.

700 FOURTEENTH STREET, N.W.
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KATHERINE S. ANDRUS
MARC R. BRUNER
FRANÇOISE M. CARRIER
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WILLIAM C. MALLEY*
DANA C. NIFOSI
BARBARA PALEY
W. ERIC PILSK
TIM A. POHLE
JOHN E. PUTNAM
THOMAS D. ROTH
*NOT ADMITTED IN DC

1675 BROADW
DENVER CO. 80202-402
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FAX: (303) 825-70

March 31, 1997

VIA FACSIMILE

Mr. Dennis Ossenkop
Federal Aviation Administration
Northwest Mountain Region
Airports Division
1601 Lind Avenue, S.W.
Renton, Washington 98055-4056

Re: Comments of the Airport Communities Coalition on the FAA's Updated Draft Air Quality Conformity Determination for the Proposed Expansion of Seattle-Tacoma International Airport

Dear Mr. Ossenkop:

On behalf of the cities of Burien, Des Moines, Federal Way, Normandy Park, and Tukwila, Washington and the Highline School District, individually and collectively as the Airport Communities Coalition (the "ACC"), we are submitting the following comments on the Federal Aviation Administration's revised draft general conformity determination for the proposed expansion of Seattle-Tacoma International Airport ("Sea-Tac" or the "Airport").[1] The communities which make up the ACC are located in the immediate vicinity of the Airport and suffer directly from the emission of air pollutants from airport-related operations and activities.

[1] Fed. Aviation Admin. and Port of Seattle, Draft Supplemental Environmental Impact Statement for Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport ("DSEIS") (Feb. 1997), Appendix B - Updated Draft Air Quality Conformity Determination. In addition to these comments on the draft conformity determination, the ACC is submitting extensive comments on the overall DSEIS ("DSEIS Comments"). The ACC's DSEIS Comments and the expert reports appended thereto are incorporated by reference in this letter.

The FAA is obligated to undertake this conformity analysis under section 176 of the Clean Air Act.[2] An accurate evaluation of the potential impacts of the proposed expansion of Sea-Tac is critical given the importance of air quality to the health of residents in South King County.

The initial draft conformity determination was included in the Final Environmental Impact Statement ("FEIS"),[3] issued in February 1996. As a result of forecasting errors in the FEIS, the number of aircraft that would be using the expanded Airport in any given year was significantly underestimated, and the project's air quality impacts were discounted accordingly. Although the revised draft conformity determination ostensibly incorporates the corrected forecast in its analysis, it continues to significantly understate the level of emissions associated with the project, and fails to remedy most of the other flaws and omissions identified by the ACC in its comments on the previous draft conformity determination.[4]

A. The Revised Draft Conformity Determination Relies on an Inaccurate Estimate of Total Emissions

The revised draft conformity determination concludes that the total direct and indirect emissions from the proposed project would not exceed the *de minimis* levels for the applicable criteria pollutants and their precursors: volatile organic compounds (VOC), oxides of nitrogen (NO_x) and carbon monoxide (CO).[5] This conclusion is suspect on several counts. Erroneous assumptions continue to infect the dispersion analysis for both aircraft and surface traffic, while construction-related emissions are still underestimated. Discrepancies between data used to support this conclusion and data reported elsewhere in the DSEIS indicate that the calculation of emissions is simply incorrect. Rectifying these errors would result in project emissions above the *de minimis* threshold for one or more criteria pollutants.[6]

---

[2] 42 U.S.C. § 7506(c).

[3] Fed. Aviation Admin. and Port of Seattle, Final Environmental Impact Statement for Proposed Master Plan Development Actions at Seattle-Tacoma International Airport (Feb. 1996)

[4] The ACC's previous comments are incorporated by reference into this letter. See Letter from Perry Rosen to Dennis Ossenkop re: Comments of the Airport Communities Coalition ("ACC") on the FAA's Draft Clean Air Act General Conformity Determination for the Proposed Expansion of Seattle-Tacoma International Airport (Mar. 18, 1996); Letter from Thomas D. Roth to Dennis Ossenkop re: Additional Comments of the Airport Communities Coalition on the FAA's Draft Clean Air Act General Conformity Determination for the Proposed Expansion of Seattle-Tacoma International Airport (June 6, 1996) and reports appended thereto.

[5] DSEIS at B-6.

[6] See Memorandum from Michael G. Ruby, P.E., President and Director, Engineering, Environmetrics, Inc., to Cutler & Stanfield, L.L.P. (Mar. 27, 1997), DSEIS Comments, Appendix N.

For example, the data contained in the revised draft conformity determination indicates that NO_x emissions would exceed 100 tons in the year 2000. Construction-related emissions for that year would include 70 tons of NO_x from fill transport and employee vehicle trips, and another 61 tons of NO_x associated with borrow source activity,[7] for a total increase in NO_x emissions of 131 tons. This increase would be offset by a reduction of 30 tons credited to landside improvements,[8] making the net NO_x emissions attributable to the overall project 101 tons – in excess of the *de minimis* threshold.[9]

Furthermore, in calculating the emissions attributable to the project, the revised draft conformity determination appears to take credit for decreased emissions associated with surface transportation projects which are slated to move forward independent of the proposed expansion of Sea-Tac. For example, both the public parking terminal expansion and the North employee parking lot are scheduled to begin construction in 1997.[10] Therefore, decreased emissions attributable to these projects cannot be used to offset increased emissions from the Airport expansion for purposes of determining whether net emissions exceed *de minimis* levels.

B. The Revised Draft Conformity Determination Fails to Analyze Emissions Associated with the Maximum Level of Operations

Based on the asserted *de minimis* emissions attributable to the project, the FAA takes the position that a formal conformity determination is not required by law, but the agency provides a conformity analysis "to address community and agency concerns regarding potential air quality impacts."[11] Not only does the FAA conclude that the project would conform to the State Implementation Plan ("SIP") if a conformity determination were necessary, but it congratulates itself that this conclusion "is especially strong given the conservative nature of the assumptions

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[7] DSEIS at B-12.

[8] DSEIS at B-10.

[9] The table entitled "Change in Emissions Inventory", DSEIS, Figure A at B-8, shows a total of 118 tons of NO_x from construction, rather than the 131 produced by adding the numbers provided in the textual discussion of construction impacts. This table contains numerous errors (e.g., adding 14 to negative 410 and arriving at negative 346) and inconsistencies (in addition to the discrepancy in NO_x emissions described above, the table indicates a total of 99 tons of CO construction emissions when the breakdown given elsewhere adds up to 108). Therefore, the reliability of any information in this table is extremely questionable.

[10] See Laura T. Coffey, *Six airport projects to begin in '97*, Daily Journal of Commerce (Seattle), Mar. 26, 1997 at 1.

[11] DSEIS at B-6 to B-7.

used in the analysis, and the fact that "worst-case" assumptions were used, even though the conformity regulations do not specify this as a requirement."[12]

In fact, as noted below and described in greater detail in the ACC's DSEIS Comments,[13] the FAA and the Port have limited their analysis of air quality impacts to avoid a true "worst-case" analysis. Moreover, the analysis of air quality impacts does not comport with the requirement that emissions be calculated for the "year during which the total of direct and indirect emissions from the action is expected to be the greatest on an annual basis."[14] According to the DSEIS, the expanded Airport could handle a maximum of up to 630,000 annual operations,[15] yet the revised draft conformity analysis only considers emissions levels through the year 2010, when operations are projected to be just 474,000.[16]

C. Aircraft Emissions are Incorrectly Calculated and Reported

According to the revised draft conformity determination, the higher number of operations associated with the third runway alternative would result in NO_x levels which are identical to the No-Action levels. The data presented in Appendix B of the DSEIS indicates that NO_x emissions from aircraft would be less under the Preferred Alternative than under the No-Action scenario in 2005,[17] the first year of operation of the proposed new runway, even though the number of operations and the fleet mix are assumed by the FAA to be the same in 2005 under both the No-Action and Preferred Alternative. This differential cannot be explained by a reduction in delay and congestion associated with the new runway, since NO_x emissions are associated predominantly with take-off and climb-out, not with taxiing and idling.[18] Errors in inputting and reporting data appear to offer the only explanation for this anomalous result.[19]

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[12] DSEIS at B-7.

[13] DSEIS Comments, § 4.1.

[14] 40 C.F.R. § 51.859(d)(2).

[15] DSEIS, Exhibit 2-7 at 2-26.

[16] DSEIS at 1-2.

[17] DSEIS, Figure B at B-9.

[18] See Energy and Environmental Analysis and K.T. Analytics, Inc., Air Pollution Mitigation Measures for Airports and Associated Activity 4 (California Air Resources Board, May 1994).

[19] See Memorandum from Michael G. Ruby, P.E., President and Director, Engineering, Envirometrics, Inc., to Cutler & Stanfield, L.L.P. (Mar. 27, 1997), DSEIS Comments, Appendix N.

The calculation of aircraft emissions of NO_x in 2010 presents an even greater paradox. NO_x emissions are projected to be identical with or without the proposed project, despite 14,000 additional operations under the Preferred Alternative scenario.[20] Although not included in the revised draft conformity determination, data presented elsewhere in the DSEIS suggests that by 2020, the additional 72,000 operations associated with Preferred Alternative would produce lower levels of NO_x emissions than the no-action scenario.[21] The conclusion that these emissions would be lower despite increased operations is implausible and is unsupported by existing scientific evidence.

D. Estimates of Construction-Related Emissions are Unreliable

The draft conformity determination purports to quantify potential emissions associated with construction activity,[22] yet the DSEIS asserts that "it is not possible to identify the specific types of construction equipment and frequency of usage that could occur."[23] The estimate of equipment used to model emissions at the embankment construction site[24] is clearly inadequate for a project of this size and complexity.[25] Since emissions from heavy-duty construction equipment operating on paved and unpaved roads are potentially significant sources of NO_x, CO and VOC, even minor changes in the numbers, types and usage of this equipment could alter the results of the modeling.

Furthermore, the DSEIS seriously underestimates the number of trucks and truck trips required to transport the fill.[26] This underestimation in turn effects the consideration of impacts on air quality. Not only will more trucks be required, but the increased truck traffic will in turn add to the congestion on local roads, further increasing emissions from idling and slow-moving vehicles.

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[20] DSEIS, Figure B at B-9, Table C-2-5 at C-2-17.

[21] DSEIS, Table D-2 at D-8.

[22] DSEIS, Appendix B at B-12.

[23] DSEIS at 5-4-1.

[24] DSEIS at B-12.

[25] See Christopher Brown and Jimmie Hinze, Comments on the Analysis of Construction Impacts in the Draft SEIS for Seattle-Tacoma International Airport (Mar. 1997), DSEIS Comments, Appendix M.

[26] See DSEIS Comments, § 4.5.1.

E. Surface Traffic Emissions are Underestimated

The revised draft conformity determination fails to fully identify and disclose the surface traffic impacts attributable to this project by avoiding a true worst-case scenario, which would consider the impact of the expanded airport operating at full peak-hour capacity.[27] The DSEIS indicates that an expanded airfield would accommodate 6,300 peak hour enplanements in 2010.[28] Whereas the No-Action scenario assumes that the same number of passengers could be accommodated by spreading them out throughout the day, construction of the third runway would allow more of these passengers to fly during peak hours. As a consequence, many more people would be arriving and departing during these peak periods – a scenario which the revised draft conformity determination does not analyze.

Furthermore, while the greatest cumulative amount of traffic may occur during the evening commute, airport-related traffic is at its worst at midday, coinciding with the peak hour of arrivals and departures.[29] Therefore, traffic generated by this project is likely to be greatest during these airport peak hours, rather than during commute peak hours. The absence of any detailed analysis of midday traffic conditions results in a significant discounting of the emissions attributable to this project.

Finally, the air quality analysis for both the DSEIS and the revised draft conformity determination contains some unexplained discrepancies in its reported data which skew the comparison of With-Project to No-Action surface traffic. For instance, the DSEIS shows the same number of Airport employee and maintenance trips in each of the future years studied,[30] despite an increase in the number of operations associated with the Preferred Alternative. An expanded Airport sustaining an increased number of operations is likely to employ a greater number of people.

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[27] See Smith Engineering & Management, Traffic Analysis of Draft Supplemental Environmental Impact Statement for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport (Mar. 11, 1997), DSEIS Comments, Appendix O.

[28] DSEIS, Table 2-6 The DSEIS does not identify a theoretical maximum hourly capacity for the expanded airfield. See DSEIS at 2-25.

[29] Current flight schedules indicate that the Airport's weekday peak period occurs between 11:00 a.m. and 1:00 p.m. DSEIS at 5-1-2.

[30] DSEIS Table 5-1-1 at 5-1-10.

F. A New Conformity Analysis is Required Before the FAA Can Approve this Project

For the foregoing reasons, the Clean Air Act requires the FAA to comprehensively review and revise the analysis of air quality impacts associated with the Sea-Tac Master Plan Update project. The ACC respectfully requests that the FAA refrain from granting approval for any element of the proposed expansion, or otherwise "supporting in any way" the Sea-Tac Master Plan Update project unless and until the FAA can make a positive conformity determination based on a revised air quality and traffic analysis that complies with Clean Air Act requirements, applicable federal law and accepted modeling protocols.

Sincerely,

Perry M. Rosen

Perry M. Rosen

cc: Ms. Barbara Hinkle, Port of Seattle
EPA (Region X)
Puget Sound Regional Council

COMMENTS ON THE ANALYSIS OF CONSTRUCTION IMPACTS IN THE DRAFT SEIS FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT

PREPARED FOR

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March 28, 1997

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The following comments are based on our review of the Draft Supplemental Environmental Impact Statement for Master Plan Update Development Actions at Seattle-Tacoma International Airport and the Fill Material Alternative Delivery Method Study for Third Runway prepared by HNTB (Final Draft, Nov. 1996). In addition to the specific comments offered here, we have provided information and observations which have been integrated into the comments prepared by Cutler & Stanfield, L.L.P. on behalf of the Airport Communities Coalition.

Due to the incomplete information available at this time on construction methods and engineering design, these comments are necessarily general and preliminary in nature.

1. Volume of Fill Material

The reduction in volume of the excavated materials to the compacted fill is stated to be 15 percent, which the Draft SEIS refers to as "shrinkage." (Draft SEIS, p. 5-4-3). The Draft SEIS appears to misuse this term, which is properly used to describe the volume change in bank material when it is compacted. The Draft SEIS does not discuss the volume change in material that is taken from the bank and placed on a hauling unit, commonly referred to as "swell" (see Figure A).

In order to calculate the number of trucks needed to transport fill, both a swell factor and a shrinkage factor must be used. The value of 15%, as used in this report, appears to be an attempt to incorporate the two values into one. This number appears small to accurately reflect the change in volume from the trucks to the final embankment site. Using what might be considered more typical values, the actual reduction in the material from loose measure in the truck to the compacted fill volume is likely closer to 21.7% (see Figure B).

Both shrinkage and swell factors may be affected by soil characteristics. The Draft SEIS does not mention the assumed soil characteristics on which the estimates of fill were based. The quality of fill also will affect the seismic stability of the embankment.

2. Construction Equipment

The Draft SEIS does not fully describe the fleet of equipment involved in fill transport, placement and compaction. The actual determination of the number of pieces of equipment required for this project can only be made by determining the cycle times of the various pieces of equipment involved. Queuing theory is one method that can be used to more accurately model field conditions to establish the equipment requirements. Cycle times must be more accurately determined in order to accomplish an accurate estimate of the fleet size.

The Draft SEIS' assumptions (used to estimate emissions from construction equipment) are overly simplistic. Three scrapers, seven dozers, five miscellaneous HDDV trucks and two water trucks (Draft SEIS, p. B-12) are clearly inadequate for a project of this size and complexity. Additional equipment, including motor graders and compactors, would likely be needed to construct the third runway embankment. Mobilization of this equipment to the site, either on flat-bed trucks or under their own

power, is not discussed in the Draft SEIS but could add to congestion on local roads and coordination problems at the site itself.

3. Organization of Field Operations

The Draft SEIS contains no discussion of how field operations at the excavation areas, and especially in the fill area, will be organized to accommodate the different pieces of construction equipment, along with the stream of dump trucks transporting fill. Since the fill area is limited in area and accessibility, the organization of equipment in this area is most important. The construction staging area is further limited by the existing topography of the site and the changes in grade which would occur as the project progresses. The logistics of operations at the fill area, including access points, routing on site and egress, must be thought through carefully.

The Draft SEIS seems to assume that each piece of equipment can be fully utilized at all times during the work day. In reality, even a well-coordinated construction project experiences some situations in which one piece of equipment has to wait for another to complete its task before it can proceed. For example, a dump truck may not be able to dump a load of fill until a dozer has spread the previous load. The delay experienced by the dump truck may in turn hold up other equipment which needs to access the site. Finally, this could cause the dump truck to be delayed in getting back to the excavation site, which could reduce the number of round trips each truck could make during the assumed 16-hour day.

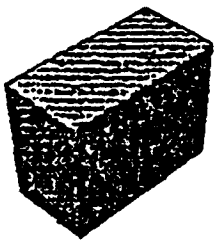
3. Disposal of Unsuitable Material

The initial site work will consist of excavating the organic materials (vegetation, etc.) which is unusable as fill. Some of the material excavated from the construction site may also be unsuitable for construction of the embankment due to poor quality, potential contamination, or other undesirable soil characteristics. While the volume of this material is small in comparison to the total fill required for the project, it could amount to a significant quantity (possibly in excess 50,000 cubic yards) of material which must be hauled away and disposed of.

4. Cut and Fill Operations

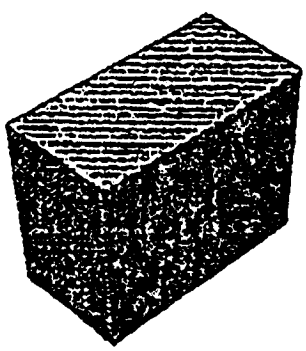
Approximately 3 million cubic yards of material would be taken from the south end of the proposed third runway as cut material and placed at the north end of the runway as fill. There is no indication that this material has been properly examined and found to be suitable for this purpose. Even if the material is suitable, the time required to perform this work would be considerable. The construction schedule does not appear to include an allowance for transfer of material from one part of the construction site to another, and the Draft SEIS seems to dismiss this cut and fill effort as consuming very little time.

FILL MATERIALS
Volume Changes From Borrow Pit To Final Placement



Bank Volume

SWELL



Loose Volume

SHRINKAGE

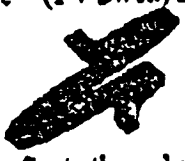
Compacted Volume

DIRT CALCULATIONS You Requested

SWELL AND SHRINKAGE PRINCIPLES

Swell (expressed in percent) reflects the volume change in material that is taken from the bank and placed on a hauling unit.

Loose Volume = (1 + Swell) Bank Volume



Shrinkage (expressed in percent) reflects the volume change in bank material when it is compacted.

Compacted Volume = (1 - Shrinkage) Bank Volume

If one yard of material (with swell of 15% and shrinkage of 10%) is taken from a bank, its loose volume is computed as follows:

Loose Volume = (1 + 0.15) 1 cu. yd. = 1.15 cu. yd.

If this one bank cubic yard of material (with swell of 15% and shrinkage of 10%) is compacted, its compacted volume is computed as follows:

Compacted Volume = (1- Shrinkage) Bank Volume

Compacted Volume = (1- 0.10) 1 cu. yd.

Compacted Volume = (0.90) 1 cu. yd. = 0.9 cu. yd.

Note: Actual reduction in the material from loose measure in the truck (1.15 cu. yd.) to the compacted fill volume (0.9 cu. yd.) is 21.7%

TRAFFIC ANALYSIS OF DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED MASTER PLAN UPDATE DEVELOPMENT ACTIONS AT SEATTLE-TACOMA INTERNATIONAL AIRPORT

prepared for
THE AIRPORT COMMUNITIES COALITION

by

SMITH Engineering & Management
MARCH 27, 1997

INTRODUCTION AND EXECUTIVE SUMMARY

We have reviewed the ground transportation related elements of the *Draft Supplemental Environmental Impact Statement For The Proposed Master Plan Update Development Actions At Seattle-Tacoma International Airport* and the related documents and data provided by the Federal Aviation Administration (FAA). In our review, we have discovered a number of fundamental flaws that affect the conclusions of the ground traffic analysis on impacts and relative performance of the alternatives and, as a consequence, the input to and possibly the conclusions of other analyses that depend on traffic considerations such as air quality conformity analysis. Reasons why we believe the Draft Supplemental Environmental Impact Statement for Sea-Tac (DSEIR) is flawed and inadequate include:

1. The DSEIS does not assess the traffic impact of the Sea-Tac alternatives at ground traffic loadings corresponding to each alternative operating at its air operations capacity. Hence, it does not assess the potential worst case condition. If traffic conditions for the Preferred and No Build Alternatives were analyzed for an hour in which each alternative was functioning at its air operations capacity, the ground transportation analysis would likely conclude that the Preferred Alternative would have significant adverse traffic impacts and the differences might affect the conclusions of air quality analyses relating to ground traffic as well.

The traffic analysis in the DSEIS does not include a true worst case condition for ground traffic impacts of Sea-Tac Airport's traffic. A true worst case test of Sea-Tac's traffic impacts would have the Preferred Alternative and the No Build Alternative operating at their actual air operations/air passenger capacities, the condition that causes the greatest airport traffic load on the ground transportation system. The worst case analysis would be carried out during hours of the day when airport traffic would cause the greatest differential in level of service experienced on the street and highway system.

In the supposed worst case traffic analysis carried out in the DSEIS, the No Build alternative is operating at about 72 percent of its apparent capacity and the Preferred Alternative is operating at only about 58 percent of its capacity. There is no detailed traffic analysis of the Preferred and No Build Alternatives operating at their capacities at any time of day. And, except for construction traffic impact analyses, the only time of day analysed is the p.m. commute peak. This is a time of day when many key street and highway facilities are projected to be loaded in excess of capacity by non-airport traffic and the impacts of airport traffic are indistinguishable in the analysis methods used in the DSEIS.

An air travel demand level at which *both* the No Build and Preferred Alternatives would operate at their capacities is entirely plausible. The DSEIS itself takes pains to caution against the unreliability of its air travel forecasts. And the DSEIS cites but does not analyze in depth for traffic impacts an FAA Terminal Area Forecast for Sea-Tac that predicts 11.4 percent more air operations and 5.9 percent more air passengers than the Port of Seattle forecasts that were used as the basis for the DSEIS. The Airport Communities Coalition has presented expert analysis indicating that air travel demand could be as much as 30 percent greater than the forecasts used in the DSEIS (see Winston). And the fact that the DSEIS projects the existing airport configuration - the No Build Alternative - to serve a level of operations and passengers far beyond the forecasts it was designed for is itself a precedent for concluding that the preferred alternative would actually operate at its capacity for peak periods in the forseeable future. Hence, it is entirely reasonable that the "worst case" scenario that

should have been assessed for ground transportation impacts in the DSEIS is the Preferred Alternative operating at its full capacity of 99 flight operations.

If a reasonable worst case analysis were carried out with both alternatives operating at their capacities, it would likely show results quite different than that presented in the DSEIS. The Preferred Alternative, generating a ground transportation demand corresponding to 99 flights per hour, would have significantly more adverse traffic impacts than the No Build, which would generate a ground transportation demand corresponding to only 82 flights per hour. If this analysis were carried out for a time of day other than the p.m. commute peak (such as mid-day), the true impacts of airport traffic would not be masked by other traffic. Differences in the outcome of the traffic analysis in such a worst case scenario might also alter the outcome of the air quality conformity analysis.

2. The DSEIS does not assess the airport alternatives ground traffic impact at the hour(s) of the day when the airport may have its most discernable and significant traffic impacts. If the appropriate hours of the day were analyzed, different conclusions would likely be drawn about the significance of the traffic impacts of the preferred alternative and might cause changes in the significance of findings in air quality determinations.

Point "1" above asserts that the true worst case condition that should have been analysed for traffic impacts in the DSEIS is the condition of each Alternative operating at its full air operations capacity. Even if the argument for a "full capacity operation" scenario is dismissed, the DSEIS should have analyzed as a potential worst case the hour(s) of the day when *the airport* generates its maximum traffic.

The DSEIS acknowledges that the actual peak in airport operations and apparent peak in airport related ground traffic occurs at midday. However, the DSEIS does not analyze traffic conditions in depth for the mid-day peak period. This is a crucial omission in the DSEIS which results in failure to disclose potentially significant impacts of the Preferred Alternative.

Data presented with the DSEIS shows current air passenger traffic (that accounts for 80 percent of all airport-related traffic according to the DSEIS) in the mid-day peak is 61 percent higher than in the evening commute peak, a fact that suggests findings of significance would likely be made if an in-depth analysis of the mid-day peak ground traffic were done. Although the cumulative amount of traffic on the street and highway system is probably greatest during the p.m. commute, the worst case of adverse impacts of airport traffic may well occur at mid-day. If airport traffic bottles-up what would otherwise be free-flowing mid-day traffic conditions on the street and highway system, this would certainly be a significant adverse impact and potentially a more important one than incremental contributions to an already gridlocked situation in the commute peak. In situations where a project is likely to have significant adverse traffic impacts at periods of time outside the commute peak and impacts significantly different from those that occur in the commute peak, it is reasonable and expected that the environmental document would analyze those periods in depth. The fact that no such analysis was done despite awareness of evidence that the mid-day condition might be the one where the airport has most significant ground traffic impact makes the DSEIS substantially inadequate as a disclosure and decisionmaking document.

The data also shows that in the mid-day peak by Year 2010, the Preferred Alternative would serve 3.5 percent more originating and destined air passengers than the No Build Alternative. This is a reverse of the relationship that prevails in the p.m. commute peak period that the FAA chose to be the sole period subjected to in depth traffic analysis. In that selected analysis hour, the No Build

alternative is projected to serve 1.9 percent more originating and destined air passengers than the preferred alternative. Hence, there is a likely prospect that if a detailed ground traffic analysis were performed for the mid-day period, it would likely find the Preferred Alternative to have greater traffic impact than the No Build.

Furthermore, in the forecast years, non-airport traffic alone may be sufficient to place key regional traffic facilities in Level of Service F conditions during the p.m. commute peak, making it difficult if not impossible to discern the impacts of airport traffic, to say nothing of determining the differences in impact between one airport alternative and another during that particular period of time. At mid-day, non-airport traffic is generally free-flowing. However, substantial increases in mid-day peaked airport traffic could cause readily quantifiable decrements to level of service. Differences in the impacts of the alternatives might be more readily discerned in this period. This also suggests that probably the most appropriate worst case traffic impact condition (the time the airport has its most significant impact on traffic) that should be evaluated in depth would be the mid-day peak.

Yet another consideration is the disclosure in the DSEIS that a level of air travel activity significantly above that used as a basis for the ground traffic assessments in the document is highly likely. In fact, the FAA's own Terminal Area Forecast of air travel for Sea-Tac predicts 11.4 percent more air operations and 5.9 percent more air passengers than the Port of Seattle estimates that were used as the basis of evaluations in the DSEIS. Had the FAA forecast been used as the basis in the DSEIS, an in-depth mid-day peak traffic analysis would show the Preferred Alternative having proportionately greater adverse ground traffic impacts but the No Build traffic effects unchanged (because in the mid-day peak the No Build is constrained by its air operations capacity while the Preferred Alternative is not).

Considering the preceeding paragraphs, it must be concluded that the DSEIS is deficient because of the lack of a mid-day peak traffic analysis.

3. If one considers traffic impacts of both No Build and Preferred Alternatives operating at their respective full capacities or traffic impacts during the mid-day peak period of Sea-Tac airport operations, or at levels of air traffic demand above the Port of Seattle forecast used in the DSEIS, weather conditions that limit flight operations on the No Build Alternative would create a further differential in traffic impact adverse to the Preferred Alternative nearly half of the time. Weather conditions that limit ground transportation demand of the No Build Alternative should be analyzed as a separate case.

Weather conditions that impair flight operations on the No Build Alternative would likely increase the significant adverse ground traffic impacts of the Preferred Alternative over the No Build. This is true in any periods of the day where the forecast air travel activity approaches or exceeds the capacity of the No Build. Such a condition occurs in the mid-day peak for the Year 2010 Port of Seattle forecast that was used as the basis for the DSEIS, and would be true for a broader period of the day under the higher air travel forecasts of the FAA and of Winston. During conditions of weather impairment, landing capacity on the No Build is reduced by increments of 20, 40 or 60 percent, decreasing by similar increments the numbers of arriving air passengers the No Build could be released onto the ground transportation system. Conditions of weather impaired flight operations have such high frequency of occurrence - 44 percent of the time according to the DSEIS - that that it should be assessed as a separate case in evaluating the impacts on mid-day traffic. Had the DSEIS done this,

further significant adverse traffic impacts of the Preferred Alternative would have been disclosed. Because such analysis is not provided, the DSEIS is deficient.

The DSEIS confines its analysis to the p.m. commute hour, a period of time when, according to the Port of Seattle forecasts, the No Build Alternative would only be operating at about 72 percent of its peak capacity. Because the airport is not operating as its peak in the sole hour selected as the sole basis of ground transportation analysis, weather impairment of flight operations is likely only a minor factor in that hour. However, had the DSEIS properly assessed ground transportation impacts in hours when the No Build would be stressed to or near its air operations capacity, the differential effect of weather limitations on air capacity would be evident 44 percent of the time and would result in a differential ground transportation impact unfavorable to the Preferred Alternative.

4. In its structuring of the alternatives considered, the DSEIR is deficient in that it deprives the public of the opportunity to consider the reasonable alternative of optimizing the landside facilities and operations around the existing airfield and limits consideration to a binary choice between an alternative involving massive expansion of the airfield and one involving absolutely no change from existing facilities. The definition of alternatives in the DSEIS is further flawed in that the Port of Seattle is already committed to landside changes in the No Build configuration that would improve its traffic performance significantly over the condition considered in the DSEIS. In essence, the DSEIS analyzes the Preferred Alternative in comparison to a "no project" condition that would not reasonably exist at the year of comparative analysis.

The DSEIS is deficient in that it fails to consider the obvious alternative of building the land-sid improvements included in the Preferred Alternative but not building the third runway (in other words, a Preferred Alternative land-side configuration with a No Build air-side configuration). In general, the landside improvements incorporated in the Preferred Alternative are beneficial from air and ground transportation perspectives and could be constructed or implemented independently of whether or not the third runway is built. It is the third runway, its direct impacts and the potential for a 20.7 percent increase in peak hour air operations, air passengers and air passenger ground traffic over the No Build and the derivative impacts of those increases that are most detrimental. In inseparably bundling a set of improvements regarded as impact neutral or beneficial with one regarded as controversial and potentially substantially detrimental, the DSEIS fails to distinguish the potential impacts of the third runway from the benefits of the landside improvements and deprives the public of the opportunity to consider the reasonable alternative of optimizing landside facilities and operations around the existing airfield. It artificially creates an "all-or-nothing" choice between the Preferred Alternative and the No Build. This makes the DSEIS deficient as a disclosure and decisionmaking document.

Another way of stating the same argument is that the DSEIS treats certain improvements affecting ground transportation as exclusive assets of the Preferred Alternative when in reality they could as readily be implemented as readily with the No Build, when in all liklihood they would be implemented by reasonable and responsible government if the No Build were called upon to serve anything like the activity levels ascribed to it in this DSEIS and when in fact, in its current actions, the Port of Seattle is already grafting them onto the No Build condition. The preceeding sections focused on one reason why the DSEIS errantly concludes that the Preferred Alternative has less ground traffic impact than the No Build - because it selected as the sole hour of the day for its analysis an hour when the N Build would serve more air passengers than the Preferred Alternative. Another important reason why the Preferred Alternative appears superior in the DSEIS analysis is because of the terminal parking garage expansion, the shift of employee parking location north of State Route 518, the roadway connection from the terminal system to 28'th Avenue South at S.188th Street and other landside changes that tend to shift traffic away from critical traffic congestion points in the vicinity of the

airport are presumed to be part of the Preferred Alternative but not implemented with the No Build. These changes have no direct linkage to the most significant and objectionable feature of the Preferred Alternative, the third runway proposal and could as readily be implemented with the No Build case. In fact, in its meeting of March 25, 1997 the Port Commission of the Port of Seattle took action to implement the parking garage expansion and the employee parking north of SR 518, essentially making them a part of the No Build condition. The DSEIS is flawed in that it creates a false measure of the Preferred Alternative's traffic impact by comparing it to a No Build condition that would not exist at the time of comparison.

5. The DSEIS may be inadequate in that it relies upon base year conditions data that may no longer describe conditions at and in the vicinity of Sea-Tac airport.

The DSEIS discloses that air operations and air passenger totals experienced in 1995 and 1996 were significantly greater than in 1994, so substantially so that it caused the Port of Seattle to increase its forecast of Year 2010 air operations and air passengers by 17 percent and the FAA to increase theirs by 30 percent for air operations, 24 percent for air passengers. If conditions in 1995 and 1996 were so radically different from 1994 that it caused vast differences in the forecast air travel activity, this suggests that the base year data should be updated also. The DSEIS would appear to be deficient by continuing to rely on 1994 as a base year. We note that in fact, some of the data used in the ground traffic analysis was collected as long ago as 1984 and is almost certainly outdated and inaccurate currently.

6. The responses to our comments on the Draft Clean Air Act Conformity Determination presented in the DSEIS are incomplete, inadequate, unresponsive to the issues raised, mischaracterizations of our comments or are merely self-references to the original inadequate materials that elicited the comment.

The series of responses contained in Responses to Comment 68, 69 and 82 concerning the adequacy of the TRAFFIX model used as a basis for the ground traffic analysis is a good illustration of the inadequacy of the DSEIS responses. In our original comments we carefully documented an extensive patter of inconsistencies in trip generation, trip origin-destination patterns and route assignments encoded into the TRAFFIX model that, taken together, strongly suggest a systematic pattern of human intervention to bias the model results against the No Build Alternative and in favor of the Preferred Alternative. We also commented that the TRAFFIX model procedure was one that offered an exceptionally high level of human intervention to bias results. In its responses, the DSEIS facilely characterizes the inconsistencies as "minor errors" that it claims it has corrected in the current work but ignores the fundamental issues that extensive pattern of the inconsistent treatments appears to evidence a systematic attempt to bias the results in favor of one alternative versus another and that the TRAFFIX procedure is one that is particularly susceptible to such biasing interventions.

The referenced responses on the subject of the adequacy of the TRAFFIX model also mischaracterize our original comments re the PSRC EMME/2 model. It does this by implying that we had suggested employing the PSRC model at the same level of zonal and network detail as is used by PSRC for regional analysis purposes. This mischaracterization enables the response to evasively claim that the TRAFFIX model is able to provide the more highly refined analysis detail that is needed in the airport area while the PSRC model is not. Our original comments clearly speak to a derivative model of the PSRC model "focused" on the airport area. The word "focused model" is a term-of-art meaning starting from a large-area "parent" model such as PSRC's and creating a variant of derivative of it - the focused model - that has a much higher level of zonal and network detail inserted into it in a

subarea of particular study interest. Our original comment clearly indicated that a *focused variant* o. the PSRC model would have been far superior to the TRAFFIX model employed for this EIS and also noted that the focused variant of the PSRC model could have been prepared at a time, effort and cost comparable to what was needed to prepare the TRAFFIX model. By comparing TRAFFIX to the regional PSRC model rather than a focused variant of it, the DSEIS response makes an inappropriate comparison that leads to an incorrect conclusion.

For the record, let us clearly state that the study should have employed a "network-sensitive" traffic forecast model technique for the traffic forecast and assignment to routes. The TRAFFIX model is not a "network-sensitive" technique. The most logical choice would be to use the PSRC EMME/2 model *with focused modifications to provide a greater level of street and highway analysis zone detail in the area of primary concern for the Sea-Tac study*. If the analyst is uncomfortable or inexperienced in exercising the EMME/2 software package, the model could be redone using similar "network-sensitive" software packages including, but no limited to, TRANPLAN, UTPS or MINUTP. The important point is that "network-sensitive" softwares such as cited above should have been used to forecast how airport traffic and non-airport traffic would spread itself over available routes, including re-routing choices made by non-airport traffic in reaction to congestion created by airport traffic. Regardless of which of these "network-sensitive" softwares is used, the traffic forecast results would then be input to any of a number of suitable capacity analysis/level-of-service evaluation programs - even the intersection level-of-service evaluation module of the TRAFFIX package would be suitable for this final aspect of the work.

We note here that in the DSEIS work, even the TRAFFIX forecast results for intersections wei exported to yet another level-of-service evaluation software, despite the fact that TRAFFIX internal capability includes the same 1994 Highway Capacity Manual analysis technique. One reason this seeming unnecessary exportation step may have been taken is because the TRAFFIX module continues to report volume-to-capacity ratios and estimates of average delay per vehicle whereas the HCM evaluation software that was employed withholds this information once Level-of-Service F conditions are reached (capacity is exceeded). We deduce this was done to conceal these results because the excedences of capacity and resultant delay that would result under the DSEIS forecasts are so extensive as to call to question the credibility of entire traffic analysis. For instance, the unreported results of traffic projections for the DSEIS indicate that in Year 2010 under the Preferred Alternative in the p.m. commute peak, traffic approaching the intersection of S. 188th Street and International Boulevard is estimated at 196 percent of capacity (twice as many cars will approach the intersection in that hour as can get through it) and the average delay per vehicle is estimated at 870 seconds per vehicle (on the average, each vehicle would sit in queue for fourteen-and-a half minutes before clearing the intersection). Obviously, before actual conditions reached anything like what is implied by the DSEIS TRAFFIX forecasts, much of the traffic would find an alternate route, an alternate mode of travel, an alternate time for the trip or not make the trip at all. So the entire traffic analysis in the DSEIS has no believable relationship to likely future conditions.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

March 31, 1997

Mr. Dennis Ossenkop
Federal Aviation Administration
Northwest Mountain Region
1601 Lind Ave, S.W.
Renton, WA 98055-4056

Dear Mr. Ossenkop:

The Department of Ecology has reviewed the draft Supplemental Environmental Impact Statement (SEIS) for the Proposed Master Plan Update Development Actions at SeaTac Airport. This letter comments on the air quality and general conformity aspects of the project. Comments on other environmental concerns are being provided in another letter from Ecology. The Air Quality Program has been coordinating its review and comments with the Environmental Protection Agency (EPA) and Puget Sound Air Pollution Control Agency (PSAPCA). Our intent is to provide the Federal Aviation Administration (FAA) with information to enable a thorough, final conformity analysis and to ensure that the project conforms to the State Implementation Plan (SIP) as required by the Clean Air Act.

As noted in the draft SEIS, the SeaTac Airport is located in a maintenance area for carbon monoxide and ozone. We are concerned about the updated air quality conformity analysis conclusion that the project will not equal or exceed the applicable "de minimis" threshold levels. We also have concerns regarding the surface transportation impacts and construction impacts associated with the fill for the third runway.

Our concern regarding the "de minimis" conclusion is based upon an intensive technical air quality review conducted by the US Environmental Protection Agency (EPA). On March 25, 1997, these draft findings were discussed by EPA and their consultant, PSAPCA, the Port of Seattle and their consultants, the FAA, and Ecology.

The EPA identified errors in the Emissions and Dispersion Modeling System (EDMS) model procedures run for carbon monoxide (MOBILE 5A factors) and aircraft emissions (temporal factors). Additionally, some "other" construction equipment was not included in the EDMS emission calculations. The report indicates that the project would exceed the de minimis conformity thresholds for carbon monoxide and oxides of nitrogen in the years 2005 and 2000 respectively. Some additional analytical work may be needed for carbon monoxide to supplement the local carbon monoxide "hotspot" conformity analysis already in the draft SEIS. Exceeding the de minimis threshold for the oxides of nitrogen standard means that emission offsets may be required to demonstrate conformity.

On the basis of EPA's analysis, and acknowledgments by the Port of Seattle's consultant of modeling errors and a commitment to revise the calculations, Ecology cannot support a de minimis conformity

finding at this time. We urge the FAA and the Port of Seattle to complete their conformity reanalyses as soon as possible and present the results in the final SEIS. Should the reanalyses differ from the draft SEIS conformity analysis it may be appropriate to provide additional time for public comments on the final conformity analysis.

As noted in the draft SEIS, surface transportation vehicles are the predominant source of air pollution in the airport area. Clearly conveying the traffic activity, such as the shifts in traffic volumes among intersections, is important for ensuring air quality "hot spot" impacts are appropriately analyzed and mitigated. A discussion specifically identifying the major access routes to the existing airport, the major access routes under the master plan including access to the north terminal, and the traffic volumes on those routes both with and without the project would be helpful..

The truck activity associated with the fill for the third runway should be described in better detail so that the impacts upon the community and air quality can be better understood and the most appropriate mitigating measures selected. A description of the number of trucks per hour on the haul routes within the airport environs would be useful. The description should also include the access routes to the airport environs so that the localized and regional impacts are presented together.

Thank you again for the opportunity to comment on this project and your willingness to discuss these issues. Ecology wants to ensure that the project conforms to the SIP, there is appropriate mitigation, and the air quality around the airport is not endangered. If you have any questions, please contact Doug Brown at (206) 649-7082.

Sincerely,

Joseph R. Williams
Program Manager
Air Quality Program

cc: Bonnie Thei, EPA
Dennis McLerran, PSAPCA
Barbara Hinkle, Port of Seattle
Doug Brown, Ecology
Paul Carr, Ecology
Elizabeth Phinney, Ecology

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
P.O. Box 47600 • Olympia, Washington 98504-7600
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March 31, 1997

Mr. Dennis Ossenkop
Northwest Mountain Region
Airports Division
Federal Aviation Administration
1601 Lind Avenue SW
Renton WA 98055-4056

Dear Mr. Ossenkop:

Thank you for the opportunity to review the draft supplemental environmental impact statement (DSEIS) for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport, proposed by the Federal Aviation Administration and the Port of Seattle (Port). Staff from several programs have reviewed the DSEIS and their comments are included below. The Department has also reviewed the air conformity analysis and comments are being sent under separate cover.

- Page 1-10: Construction Impacts -- The DSEIS mentions that On-Site Borrow Source #5 will not be used as a source of fill material. This appears to be in response to water-quality related concerns expressed in several comment letters. Ecology supports this decision as a way to avoid groundwater and drinking water contamination. However, later in the document, Borrow Source #5 is described as the future location of an employee parking lot (see page 5-5-7 and page A-2, Response to Comment). This proposed use could result in similar water quality concerns as were expressed in the comment letters. If this site is being considered for use as a parking lot (or for any other use), the effects should be fully analyzed.

- Page 1-11: Biotic Communities, Floodplains, and Wetlands – Generally, Ecology looks for compensatory mitigation for wetland and aquatic resource impacts at or near the site of a proposed project. We understand the safety concerns behind the Port's decision to focus its mitigation efforts away from the airport, and we concur with the proposal to minimize "wildlife attractions" within 10,000 feet of any active runway. We also concur with the decision that mitigation for hydrologic functions lost due to the expansion project occur at or near the airport site. As part of the mitigation for lost hydrologic functions, however, we expect to see some habitat mitigation that will not result in danger to aircraft -- for instance, habitat for fish, amphibians, and small passerine birds that use the riparian areas. This section of the Final SEIS (FSEIS) should clarify that mitigation at or near the airport will

include some wildlife habitat for those species that do not present a safety hazard to aircraft. This should also be clarified throughout the document, especially in Section 5-5.

- Table, Page 1-11 -- This table includes a 1.7 acre wetland impact due to the South Aviation support Area (SASA). Ecology understands that the permit application being reviewed by the Corps of Engineers (Corps) does not include the SASA area, and that this area of wetland impact is not considered a part of the third runway expansion project. However, if the proposed SASA is likely to be considered for permit review in the near future, Ecology would support an effort by the Port to provide mitigation now for the potential 1.7 acre wetland loss. Including mitigation now in advance of this potential wetland loss could allow a successful mitigation site to develop before the impact takes place, and depending on the size and type of mitigation, could result in either a lower ratio of required mitigation or mitigation credit.

- Pages 4-6 and 4-7: Local Land Use Actions – If a water quality certification is issued for the proposed project, it will be provisional upon compliance with all applicable state aquatic protection regulations, including those required by the State Environmental Policy Act (SEPA) and the Growth Management Act (GMA). The Port should work with the surrounding jurisdictions to ensure that comprehensive plans in those affected communities include recognition of the proposed airport expansion project and are in compliance with the GMA.

- Page 5-4-1: Construction Impacts -- Project-related impacts to wetlands or other waters of the state will be addressed during the 404/401 permit process. This includes any impacts at on- or off-site borrow sites used to supply fill material for the proposed project. Any proposed sources of fill material added after completion of this DSEIS should be fully analyzed in the FSEIS and/or the 404/401 permit review.

- Page 5-4-2: Off-Site Borrow -- Sites used to offload barged fill material for the proposed project may need a new shoreline permit, or may require that the proposed activity is authorized under an existing shoreline permit. This includes the Des Moines Creek conveyor system as described on page 5-4-6.

- Pages 5-4-11 and 12 -- All of the borrow sites will required to comply with the NPDES and State General Sand and Gravel Permit. This permit contains conditions, such as the requirement to implement an Erosion and Sediment Control Plan, that are intended to prevent impacts to waters of the state. The requirement to obtain these permits will be a condition of any water quality certification issued for the proposed project.

- Page 5-4-36: Table 5-4-8 -- Applicable provisions of the Construction Best Management Practices described in this table will probably be included as conditions of any water quality certification issued for this proposed project.

- Section 5-5: Biotic Communities, Wetlands and Floodplains -- This section will receive a fuller and more detailed review as part of the Section 404/401 permit review process and when final proposed plans are developed.

- Page 5-5-1 -- The DSEIS states that sections of two creeks will require realignment due to the proposed project. About 200 feet of Des Moines Creek will be realigned due to runway expansion and about 2,200 feet will be realigned due to SASA. Even if SASA is handled as a separate permit application, the Port should consider including the entire length of the realignment in its 404 permit application to the Corps if the SASA will be proposed in the near future. This may minimize impacts to the creek by allowing all the work to be done at once rather than in two or more stages.

- Pages 5-5-1 through 5-5-9 -- The project impacts to wetlands have been increased by nearly 20 percent, from 10.4 to 12.23 acres. Ecology staff spent two field days last year reviewing the impact areas and the proposed mitigation site. Most of the wetlands being affected are highly degraded wetlands in a highly urbanized area. Given the low quality of the affected wetlands, we believe the increase in impact area is not significant and can be mitigated. The hydrologic and water quality functions currently provided by the affected wetlands will be mitigated on-site, within existing drainage basins. The wildlife habitat-related functions provided by the wetlands will be mitigated for at the off-site mitigation area next to the Green River in Auburn. The wetland impacts will be closely examined during the Army Corps Section 404 permit process. Ecology will conduct a concurrent evaluation during the review for the Section 401 Water Quality Certification that is attached to the 404 permit. At that time, we will negotiate mitigation ratios and mitigation performance standards.

- Pages 5-5-2 and 5-5-9 -- The DSEIS describes two options for routing South 154th/South 156th Streets around the Runway Safety Areas (RSAs) at the north end of the proposed runway expansion. Option 1 would affect 2.34 acres of wetlands, and Option 2 would affect 3.04 acres of wetlands. These two options represent about one-quarter and one-third of the proposed project's direct wetland impacts. In addition, one proposed scenario includes routing the streets through a tunnel under the RSA, which would result in significant avoidance of wetland impacts. The DSEIS describes this scenario as the most costly, but there is no breakdown of the associated costs. These should be fully analyzed as part of the FSEIS and the Alternatives Analysis required through the Corps' Section 404 permit review.

- Pages 5-5-17 through 5-5-21 (also Page 5-7-4 and the Miller Creek Relocation Plan for Proposed Master Plan Update Improvements at Seattle-Tacoma International Airport [Parametrix, December 1996]) -- The DSEIS states that hydrologic functions (water quality, flood storage, and stormwater storage) lost in the Miller Creek Basin due to the proposed project will be mitigated with a replacement ratio of at least 1:1. This ratio should be increased if the proposed project will result in increased hydrologic inputs to the Miller Creek basin (e.g., increased "flashiness" of flows, change in overall conveyance of stormwater, etc.), or would result in a need for increased capacity to buffer exceedances of physical,

chemical, or biological water quality standards. In addition, the proposed relocation of Miller Creek, as described in the above-referenced Relocation Plan, shows that two rather severe angles are part of the main channel design. The design and contingency plan for the stream relocation should recognize that the stream will likely evolve into a different channel configuration with smoother curves and different accretion/deposition areas than the design calls for. The plan should allow for more "wiggle room" (literally) so the channel can locate itself based on the actual hydraulics of the stream.

- Appendix A, Page A-1 Response to Comment -- Ecology would likely support efforts by the applicant to include appropriate riverbank stabilization on the Green River as part of the mitigation for the proposed project. Part of our analysis during the water quality certification review is to determine whether the mitigation site will be successful, and bank stabilization may be necessary to ensure that the mitigation site is protected in a way to allow success.

- The DSEIS forecasts a 40% increase in jet fuel usage by the year 2010. The document does not discuss how this increase in fuel usage will be accomplished without causing further contamination of the soil and groundwater at Sea-Tac Airport. This issue should be addressed in the FSEIS or during the permitting process.

If you have questions regarding the above comments, please contact Mr. Mike Rundlett (206/649-7010) or myself (360/407-6907).

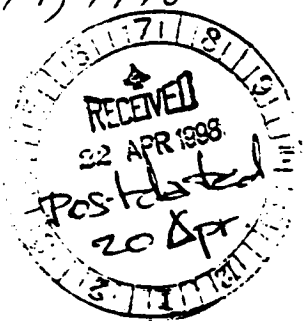
Sincerely,

David Bradley
Section Supervisor
Environmental Review and Sediment Management Section

EIS 953377
SEPA 9700799

cc: Mike Rundlett, NWRO
Dave Williams, NWRO
Tom Luster, CP
Lisa Zinner, NWRO
Roger Nye, NWRO
Erik Stockdale, NWRO
Scott Lamb, NWRO
Doug Brown, NWRO
Paul Carr, Air Quality
Elizabeth Phinney, CP

#017 S. 262 Pl.
Kent, WA 98032
April 19, 1998



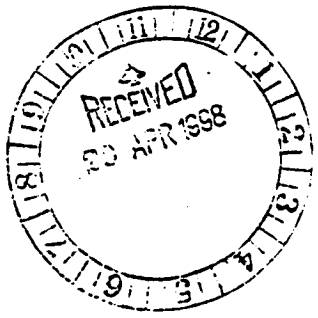
U.S. Army Corps of Engineers
P.O. Box 3755
Seattle, WA 98124

Dear Sir/Madam:

I'm writing to express my opposition to the Port of Seattle's plan to fill in 11 acres of wetlands at Miller and Des Moines Creek. Building a third runway threatens precious habitat for fish and wildlife. Civic groups have been active in stream restoration. Our wetlands are vital to the natural habitats of many plants and animals. Please reconsider plans to eliminate or trade this wetland.

Sincerely,
Marilyn J. Hoff

2P-56



April 19, 1998

U.S. Army Corps of Engineers
Regulatory Branch
PO Box 3755
Seattle, WA 98124-2255
Attn: Jonathan Freedman

Reference: 96-4-02325 Port of Seattle

These comments and questions supplement those submitted to you January 8, 1998, January 14, 1998 and those made at the public hearing held April 9, 1998 regarding the reference application.

1 This 404 permit application, now for seven years instead of the usual three years, must be denied until The Port of Seattle conducts and produces an alternative analysis that would reduce the impact to the Des Moines and Miller Creek Watershed, as well as to the underlying aquifers.

2 Enclosed is a copy of a letter that I have written to the U.S. Department of Justice in the context of Executive Order (EO) No. 12898 (59 Fed. Reg. 7629 (Feb. 16, 1994)). The EO directs Federal agencies to assure that procedures and actions are in place to make achieving environmental justice a part of their basic mission. The EO resulted from the fact that in certain communities Federal agencies have contributed to prolonging particular disparities by underenforcing laws, or by failing to take other remedial steps. The result is a polluted environment that is disproportionately borne by those communities.

The EO requires that Federal agencies review factors to determine if certain neighborhoods suffer disproportionate environmental risks as the result of past "underenforcement of state or federal health of environmental laws." Such "underenforcement" could occur if The Port of Seattle is not required to perform adequate alternative analysis, such as recently required by the Corps for the Emeralds Downs Racetrack and the Weyerhaeuser project in Vancouver. A Pierce County landfill application was denied due to unacceptable wetlands impacts and due to the County

3 stating there were no suitable options. The Port has the viable option of making the proposed runway shorter which would reduce watershed impact and reduce the amount of needed fill.

The Corps must also consider The Port's recent record regarding environmental precautions, as demonstrated by their gross mismanagement of the north parking lot construction. This 404 permit is for a construction project that in terms of fill

4 requirements dwarfs anything to date in the State of Washington. According to The Federal Aviation Administration's (FAA) Environmental Impact State (EIS), 23 million cubic yards (the lowest estimate) of fill are needed. From where? What is the fill quality? How deep are the Des Moines-Miller Creek bogs? Do you have the answers to those questions? Deny this permit until you do. Hopefully, along with the State Department of

5 Ecology, The Corps will assess with facts and data what impact 23 million cubic yds of fill will have on top of the aquifers. The FAA's EIS is totally devoid of the word "aquifer."

This is incredible, since Riverton Heights Wells #1 & 2 draw water from the aquifers under The Port's land for the City of Seattle. The Safe Drinking Water Act (42 U.S.C. § 300f et seq, 6939b; 15 U.S.C. § 1261 et seq) requires that the appropriate Federal and state agencies closely regulate activities that may impact underground drinking water supplies. A scientific systemic view of the impacted water systems is required.

The National Environmental Policy Act (NEPA) and the Code of Federal Regulations, Title 40, states "Federal Agencies shall to the greatest extent possible . . integrate the requirements of NEPA with other planning and environmental review procedures required by law or by agency practice so that all such processes run concurrently rather than separately." (40 CFR 1500.2) The FAA's EIS for the Port's entire airport expansion program is under court challenge. How can the Corps issue the Section 404 permit without resolution of the court challenge in favor of the EIS? You are clearly in violation of Title 40 described, if you do so. It would be clear segmenting of the process. The only time The Port allowed concurrent public process was when the Washington Department of Ecology was included at the April 9th public hearing. This hearing was not originally planned, but the public outcry could not be ignored.

6

Two months after release of the May 1997 EIS, the National Marine Fisheries Services announced that certain Puget Sound salmon were candidates for listing under the federal Endangered Species Act. Can the Corps ignore that situation? The communities surrounding the airport have been struggling to get the Port to improve and protect salmon streams for 25 years!

7

Section III, paragraph C of the EO states that the Justice Department will also make sure that Federal agencies promote and protect community members' rights to participate meaningfully in environmental decisionmaking that may affect them. Clearly, when the U.S. Army Corps of Engineers meets privately with The Port of Seattle and their paid consultants and does not include the impacted communities that goal is *grossly ignored.* This permit process has not provided for meaningful public inclusion. The public hearing was strictly one way. Did you preclude public inclusion when you met only with The Port? When does meaningful public inclusion occur? I have yet to even receive a reply from the Corps to previous questions regarding this permit. I did not and do not intend for my questions to be ignored and merely made part of some public record, shelved for posterity.

8

Specifically, my January 14, 1998 letter provided The Corps with a Port of Seattle Memorandum Item No.8c dated January 13, 1998 which stated that the wetlands proposed for out-of-basin mitigation could result in payment of cash to the City of Auburn instead of wetlands. Is that acceptable to the Corps and to the communities? The terms are outlined in the Port's Interlocal Agreement with the City of Auburn. The Port's statements that wetlands <u>have to be</u> mitigated out-of-basin due to airport safety is deliberate obfuscation of facts and a cynical attempt to make the general public fearful. No one is proposing a lake! Sea-Tac Airport is already surrounded by Angle, Tyee, Burien, Bow, Arrow, Lora, Arbor, and Tub lakes.

9

10

I'm writing this as a private citizen, not as a lawyer, not as a developer. I am employed by a major Puget Sound business, and I appreciate the value of air transportation. I am also a passionate advocate for equitable sharing of the resulting pollution

The E.O. clearly states that communities that have experienced more than their fair share of pollution, as the communities surrounding the airport have compared to the rest of Puget Sound, are equally entitled to a clean air and water for themselves, their families, and for future generations. The airport communities have struggled to cohabit with their neighbor and have, up until now, borne the brunt of Puget Sound's growth. We have to draw the line with this permit and stop the continued wetlands degradation. Years of construction activity alone could finish off the beleaguered Miller-Des Moines Creek watershed and dramatically increase air, water, and noise pollution to the surrounding communities.

I hope The Corps, along with the addressees copied below, insists on additional facts and data and insists on meaningful alternative analysis. Anything else would be a gross disservice to the thousands of citizens in Queen Anne, Rainier Valley, Tukwila, Sea-Tac, Vashon Island, Federal Way, Des Moines, Normandy Park, Burien and White Center.

Maria C Little

Maria C. Little
2650 SW 151st Place
Seattle, WA 98166

Enclosure: U.S. Department of Justice ltr dtd 4/19/98

Cc: U.S. Senators: Patty Murray
Slade Gorton
U.S. Congressmen: Adam Smith
Norm Dicks
Washington Governor Locke
Washington State Representatives:
Julia Patterson
Karen Keiser
Jim McCune
Dow Constantine
Mike Heavy
Bob Sump
Washington Department of Ecology - Tom Luster
King County Councilmen:
Pete von Reichbauer
Chris Vance
Greg Nickels
Kent Pullen
King County Executive Ron Sims
Frank D. Ellis, Inspector General, Corps of Engineers
U.S.Environmental Protection Agency
Cascade Chapter of the Sierra Club
John Rankin, City of Normandy Park
Nick Licata, Seattle City Councilmember
U.S. Department of Justice
Federal Aviation Administration

04/19/98 96-4-02225 3/3

April 19, 1998

Office of the Associate Attorney General
Department of Justice, Room 5214
10th & Constitution, N.W.
Washington, DC 20530

Dear Associate Attorney General Fischer:

Subject: Executive Order (EO) No. 12898 (59 Fed. Reg. 7629 (Feb. 16, 1994))

I am submitting a request for review of the enforcement actions required by the Clean Water Act (CWA) (33 U.S.C. 1251 et seq.) of the U.S. Army Corps of Engineers and of the U.S. Environmental Protection Agency (EPA).

The construction project requiring CWA, Section 401 (33 U.S.C. 1341), Section 402 (33 U.S.C. 1342) and Section 404 (33 U.S.C. 1344) permits is summarized in attachment 1, Federal Aviation Administration's Executive Summary of the *Seattle-Tacoma International Airport draft Environmental Impact Statement (EIS) for Proposed Master Plan Update Development Actions.* The various review processes have been ongoing since 1995. A case has been filed with U.S. court of Appeals at San Francisco challenging the FAA's final EIS approval. It has not been scheduled.

My letter is primarily focused on the most recent permit review processes conducted by the Army Corps of Engineers, and those processes contribute to the current disproportionate environmental pollution burden borne by the communities surrounding the Seattle-Tacoma airport. I have local news articles that are somewhat useful in describing the environmental issues challenging these neighborhoods. They are not legal documents. I am not a lawyer, but I am extremely concerned that environmental justice is not being served by the Federal agencies involved in these processes.

Attachment 2 , along with my most recent comments, is a copy of the original public announcement for a 30-day comment period starting December 19, 1997 and ending January 20,1998. I received this notice on December 23rd, two days before Christmas! There was no planned public hearing. The last page of the public announcement was an announcement by the State of Washington Department of Ecology (DOE) that they had the CWA Section 401 permit responsibility.

The original public announcement lacked a direct explanation of DOE's role, or that comments should also be provided to the DOE. The original announcement made no mention of a public hearing. This resulted in a huge public response,

and, subsequently, the Corps and the DOE held a joint public hearing on April 9th. Unfortunately such public hearings are one-way; questions are not permitted, unless for minor clarifications. It was revealed at the public hearings that The Corps has met several times with the applicant, The Port of Seattle and the FAA, without community representation.

Both agencies have neglected any mention of their obligations under the Safe Drinking Water Act (42 U.S.C. § 300f et seq, 6939b; 15 U.S.C. § 1261 et seq). The estimated 23 million cubic yards of fill (lowest estimate) of fill required to construct the additional runway will be over aquifers that supply back-up to the city of Seattle through Riverton wells #I and #2. The EIS and the 404 and 401 permit applications do not have the word "aquifer" anywhere, nor any facts and data regarding impacts to the aquifer from this incredible amount of fill – 23 million cubic yards.

The exclusion of community involvement is contrary to the intent of the EO, Section III, paragraph C, which states that the Department of Justice will "promote and protect community members' rights to participate meaningfully in environmental decisionmaking that may affect them." The main intent of this EO is to be sure that certain neighborhoods do not suffer disproportionate risks to environmental hazards. I have enclosed articles outlining the EPA's concerns in the past regarding noise pollution. Unfortunately, the neighborhoods surrounding this airport have little or no political clout in the Puget Sound area. They are predominately lower-income neighborhoods relative to the rest of Puget Sound.

I would like to be contacted immediately regarding these concerns. There is a gross environmental injustice occurring in the Puget Sound region. It would be prudent on the Department's part to ensure that potential environmental damage is mitigated, as opposed to having "20/20 hindsight" once the potential disasters are realized.

Sincerely,

Maria C. Little
2650 SW 151st Place
Seattle WA 98166
(425) 965-6908

Attachments: as described

nother e-mail for you.

Lori
x6084

-----Original Message-----
From: Maria Little [SMTP:michael.little@worldnet.att.net]
Sent: Sunday, April 19, 1998 12:14 PM
To: lori.d.danielson@usace.army.mil
Cc: chris carrel; tlus461@ecy.wa.gov; cascade.chapter@sierraclub.org; patterso_ju@leg.wa.gov; arthurgorlick@seattle-pi.com; lvar-new@seatimes.com; rcaa@accessone.com; "adam.smith@mail.house.gov"@eml01.usace.army.mil
Subject: Permit RN 96-4-02325-Replacement comments

The following comments are a replacement in total for those electronically submitted to your office, reference permit, on April 18th @ 9:53PM
PDST.

My earlier transmission omitted a relevant citing of the requirements of the Safe Drinking Water Act. Additionally, it contained more emotional statements than I prefer to make and those have been edited/modified.

Again, it is burdensome to make this submission on a Sunday. An original of this letter, along with the letter to the Department of Justice, along with its attachments will be in your office tomorrow.

Text Follows:

April 19, 1998

U.S. Army Corps of Engineers
Regulatory Branch
PO Box 3755
Seattle, WA 98124-2255
Attn: Jonathan Freedman

Reference: 96-4-02325 Port of Seattle

These comments and questions supplement those submitted to you January 8, 1998, January 14, 1998 and those made at the public hearing held April 9, 1998 regarding the reference application.

This 404 permit, now for seven years instead of the usual three years, must be denied until The Port of Seattle conducts and produces an alternative analysis that would reduce the impact to the Des Moines and Miller Creek Watershed, as well as to the underlying aquifers.

Enclosed is a copy of a letter that I have written to the U.S. Department of Justice in the context of Executive Order (EO) No. 12898 (59 Fed. Reg. 7629 (Feb. 16, 1994)). The EO directs Federal agencies to assure that procedures and actions are in place to make achieving environmental justice a part of their basic mission. The EO resulted from the fact that in ertain communities Federal agencies have contributed to prolonging particular disparities by underenforcing laws, or by failing to take other remedial steps. The result is a polluted environment that is disproportionately borne by those communities.

The EO requires that Federal agencies review factors to determine if certain neighborhoods suffer disproportionate environmental risks as the result of past "underenforcement of state or federal health of environmental laws." Such "underenforcement" could occur if The Port of Seattle is not required to perform adequate alternative analysis, such as recently required by the Corps of the Emeralds Downs Racetrack and the eyerhaeuser project in Vancouver. A Pierce County landfill application was denied due to unacceptable wetlands impacts and due to the County stating there were no suitable options. The Port has the viable option of making the proposed runway shorter which would reduce watershed impact and reduce the amount of needed fill.

The Corps must also consider The Port's recent record regarding environmental precautions, as demonstrated by their gross mismanagement of the north parking lot construction. This 404 permit is for a construction project that in terms of fill requirements dwarfs anything to date in the State of Washington. According to The Federal Aviation Administration's (FAA) Environmental Impact State (EIS), 23 million cubic yards (the lowest estimate) of fill are needed. From where? What is the fill quality ? How deep are the Des Moines-Miller Creek bogs? Do you have the answer those questions? Deny this permit until you do. Hopefully, along with the State Department of Ecology, The Corps will assess with facts and data what mpact 23 million cubic yds of fill will have on top of the aquifers. The FAA's EIS is totally devoid of the word "aquifer." This is incredible, since Riverton Heights Wells #1 & 2 draw water from the aquifers under The Port's land for the City of Seattle. The Safe Drinking Water Act (42 .S.C.? 300f et seq, 6939b; 15 U.S.C.? 1261 et seq) require that the appropriate Federal and state agencies closely regulate activities that may impact underground drinking water supplies.

The National Environmental Policy Act (NEPA) and the Code of Federal Regulations, Title 40, states "Federal Agencies shall to the greatest extent possible. . integrate the requirements of NEPA with other planning and environmental review procedures required by law or by agency practice so that all such processes run concurrently rather than separately." (40 CFR 1500.2) The FAA's EIS for the Port's entire airport expansion program is

under court challenge. How can the Corps issue the Section 404 permit without resolution of the court challenge in favor of the EIS? You are clearly in violation of Title 40 described, if you do so. It would be clear segmenting of the process. The only time The Port allowed concurrent public process was when the Washington Department of Ecology was included at the April 9th public hearing. This hearing was not originally planned, but the public outcry could not be ignored.

Two months after release of the May 1997 EIS, the National Marine Fisheries Services announced that certain Puget Sound salmon were candidates for isting under the federal Endangered Species Act. Can the Corps ignore that situation? The communities surrounding the airport have been struggling to get the Port to improve and protect salmon streams for 25 years!

Section III, paragraph C of the EO states that the Justice Department will also make sure that Federal agencies promote and protect community members' rights to participate meaningfully in environmental decisionmaking that may affect them. Clearly, when the U.S. Army Corps of Engineers meets privately with The Port of Seattle and their paid consultants and does not include the impacted communities that goal is grossly ignored. This permit process has not provided for meaningful public inclusion. The public earing was strictly one way. Did you preclude public inclusion when you met only with The Port? When does meaningful public inclusion occur ? I have yet to even receive a reply from the Corps to previous questions regarding this permit. I did not and do not intend for my questions to be ignored and merely made part of some public record, shelved for posterity.

Specifically, my January 14, 1998 letter provided The Corps with a Port of Seattle Memorandum Item No.8c dated January 13, 1998 which stated that the wetlands proposed for out-of-basin mitigation could result in payment of cash to the City of Auburn instead of wetlands. Is that acceptable to the Corps and to the communities? The terms are outlined in the Port's Interlocal Agreement with the City of Auburn. The Port's statements that wetlands have to be mitigated out-of-basin due to airport safety is deliberate obfuscation of facts and a cynical attempt to make the general public fearful. No one is proposing a lake! Sea-Tac Airport is already surrounded by Angle, Tyee, Burien, Bow, Arrow, Lora, Arbor, and Tub lakes.

I'm writing this as a private citizen, not as a lawyer, not as a developer. I am employed by a major Puget Sound business, and I appreciate the value of air transportation. I am also a passionate advocate for equitable haring of the resulting pollution.

The E.O. clearly states that communities that have experienced more than their fair share of pollution, as the communities

AR 036683

surrounding the airport have compared to the rest of Puget Sound, are equally entitled to a clean air and water for themselves, their families, and for future generations. The airport communities have struggled to cohabit with their neighbor and have, up until now, borne the brunt of Puget Sound's growth. We have to draw the line with this permit and stop the continued wetlands degradation. Years of construction activity alone could finish off the beleaguered iller-Des Moines Creek watershed and dramatically increase air, water, and noise pollution to the surrounding communities.

I hope The Corps, along with the addressees copied below, insists on dditional facts and data and insists on meaningful alternative analysis. Anything else would be a gross disservice to the thousands of citizens in Queen Anne, Rainier Valley, Tukwila, Sea-Tac, Vashon Island, Federal Way, Des Moines, Normandy Park, Burien and White Center.

Maria C. Little
2650 SW 151st Place
Seattle, WA 98166

Cc: U.S. Senators Patty Murray and Slade Gorton
U.S. Congressman Adam Smith

Washington Governor Locke

Washington State Representatives:
Julia Patterson
Norm Dicks
Karen Keiser
Jim McCune
Dow Constantine
Mike Heavy
Bob Sump
Washington Department of Ecology, Attn: Tom Luster

King County Councilmen:
Pete Von Reichbauer
Chris Vance
Greg Nickels
Kent Pullen

King County Executive Ron Sims
Frank D. Ellis, Inspector General, Corps of Engineers
Environmental Protection Agency
Cascade Chapter of the Sierra Club
John Rankin, City of Normandy Park

Nick Licata, Seattle City Councilmember U.S. Department of Justice
Federal Aviation Administration

2P-57

April 19, 1998

Army Corps of Engineers
Jonathan Freedman, Project Manger
P. O. Box 3755
Seattle, WA 98124

Dear Sir:

We are writing to protest the granting of a permit to the Port of Seattle to move the wetlands around the Airport. We are dismayed to hear that they propose to move the wetlands to an area many miles away. I fail to see the logic of this proposal. If they want really cheap land perhaps they could move the wetlands to North Dakota, for instance.

If Miller Creek dries up and our Puget Sound estuary is no more, we can say "goodbye" to all the bird life which we enjoy today.

We are dismayed with the absolutely arrogant attitude of the Port of Seattle, their Commissioners and employees about their neighbors and we ask that the Corps of Engineers insert logic and practicality into this process. We ask that you deny this permit and suggest that the Port find another location for their new airport.

Thank you for your attention.

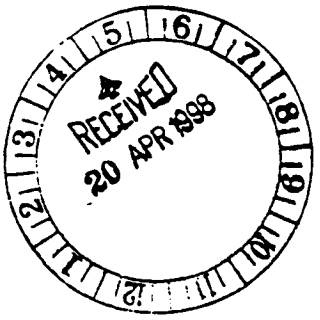
Respectfully submitted,

Jean L. Mayer

Jean L. Mayer
2133 S. W. 173rd Pl.
Burien, WA 98166

Gary Wagner
17225 Ambaum Blvd. S.
Burien, WA 98148
(206)431-8772

April 19, 1998



Jonathan Freedman
U.S. Army Corps of Engineers
Box 3755
Seattle, WA 98124-2255

Dear Mr. Freedman

Following are my comments on the proposed Sea Tac Airport expansion which I would appreciate your considering before deciding to grant or deny their permit application. The bulk of my comments relate to the overall prospect for the "big picture" success of this endeavor but I also wish to say a few things about the probable ecological damage that will occur if the project is completed.

First, however, I attended the hearing on April 9 and listened to all of the comments regarding the Port's plans to fill significant portions of the Miller and Des Moines Creek watersheds, but heard nothing (and, talking with your representatives, discovered that they knew nothing) about Walker Creek which has comparable flows to Miller and also has significant runs of cutthroat trout and other salmonids and has been here-to-fore entirely omitted from any discussion I've overheard. Walker Creek and one of its clear, cold tributaries both flow across my property here in Burien but having been provided with no maps of the headwaters I have no idea how the runway construction might affect their viability, and I don't see how you can consider the Port's permit application without first having them address this issue. 1

I really hope you have some time somewhere in this process to dig your way out from beneath the mountains of facts, figures, opinions, truisms, falsisms and probably a lot of plain ol' lies that the various involved parties have been trying to bury you with and try to take a big picture, long term, impartial look at the situation. I don't know, but I have heard that Sea Tac will have to accomodate a lot more air traffic in the future, even that the third runway will be obsolete before it's finished and another major facility will have to 2

be built somewhere else. The theory being that two runways there will handle four or five times the volume one more at Sea Tac will due to the complicated and sometimes dangerous logistics of having planes crossing two working runways to get to the third one. I've also heard that the third runway will be too short to be practicalwhich, if true, will mean that the Port will apply for, and get, permission to extend it regardless of environmental costs since the governing bodies involved will agree that they might as well do a little more damage and get it right. And the Port knows that it will be easier to do this then rather than now.

Now I don't know how much of this opinion will ultimately be proven correct, but it sure sounds as though correct thinking <u>now</u> should lead a person to conclude that there's a good possibility that building that ultimate solution rather than a destructive, divisive, expensive, temporary one at Sea Tac would not only eliminate the need to do serious permanent damage to the quality of life in the surrounding area, as you and I and everyone else involved already knew it would long before you heard all of those impassioned pleas the other night, but it would also make outstanding economic sense to not have to pay to solve the problem twice.

2

And it would make great practical sense as well. We can hardly get past the airport on SR518 now at certain times of the day, the Seattle area is fast approaching traffic gridlock, the north end and Snohomish and eastern King Counties are growing like crazy and the Port's plan requires that all of these existing and future frequent fliers drive through all of that mess to get to what they want to be the only airport around. And most of those passengers are not going to be taking mass transit. Friends and family are going to be there to see them off and to greet them upon their return. That's not going to change. There are good reasons why other large congested cities have multiple airports and Seattle is a prime candidate. Sea Tac will have enough trouble accomodating the increasing traffic from the south if a new facility is built north, or from the above mentioned north if the new airport is built south. Why must we try to squeeze it all into one departure and arrival point when we can hardly move around here now?

Why? I'll tell you why. Because even though this plan is ridiculously expensive in comparison to what it will be able to deliver, and will do somewhere between a fair amount and extensive irreparable damage to the quality of life in the local environs, this plan requires the least amount of near term expenditures and promises the greatest near term profits. I don't think this is any news to you. I noticed that virtually all of the "pro" speakers at the April 9 hearing represented entities that have nothing but money to make if the plan prevails. Conversely, I don't think that I heard a single one of the

3

"anti" speakers that I suspected might be in line to make money somehow if the plan fails. Did you? Interestingly enough, I'll bet that a number of that group, business persons particularly, stand to do better financially if the runway does go in. It will certainly bring more, if only transitory, people to the area. It will only hurt those of us who live here, said business owners included.

3

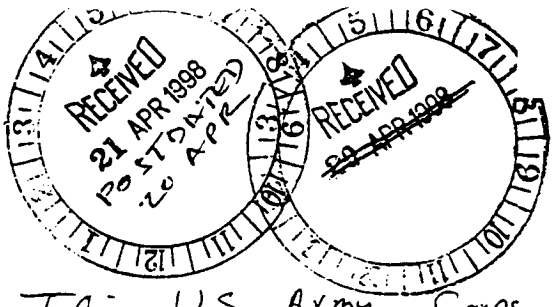
Business park developers, construction contractors, sand and gravel and trucking company owners and others in the "pro" camp will be fat, happy and retired when the true costs of this short-sighted plan come due. And someone else will have to pay. (And build a second airport.) That is why certain people think this is such a good plan. I am not fooled. No one, except the residents of this community, is thinking long-term.

About the birds, fish etc. You are the paid expert here on wetlands and the like so I can only assume that you will be in substantial agreement with me when I observe that there is no way one can cover the surface of a watershed with millions of tons of fill and replace, in the same watershed, hundreds of homes and yards (probably about 80% permeable ground) with acres and acres of industrial parks (probably about 5% permeable) without almost totally obliterating the functions that watershed (what's left of it) has been performing for the last 10,000 years, even with the world's best retention ponds. Cold, filtered water percolating out of the ground into our streams is a totally different animal than warm, polluted parking lot runoff. You must know all about stream temperature and pollution and the requirments of various fish species. Can you be sure that this project will not destroy the years of efforts by the local Trout Unlimited chapter (not to mention schoolchildren and other volunteers) to clean up, re-vegetate and in other ways enhance the quality of these streams. Anadromous fish runs are back, barely. I don't think they will be able to survive this wholesale degradation of their watershed. And sprucing up a swamp in Auburn isn't going to help either. Miller, Walker and Des Moines Creek are spawning habitat. A wetland along the Green River is fine for blackbirds, herons and muskrats but won't even be visited by trout or salmon. According to both my observations and those of Parametrix Inc., who produced the map entitled "Potential Mitigation Sites Evaluated in the Miller Creek and Des Moines Creek Watershed" and accompanying report, there are no useful mitigation sites in this watershed, which means that if this fragile but surviving ecosystem is compromised, it isn't coming back.

4

Thank you.

Gary Wagner



2P-59

April 20, 1998

Donald H. Cone
18977 Marine View Cir SW
Normandy Park, WA 98166

TO: US Army Corps of Engineers

Subject: SEA-TAC 3rd Runway and Wetlands

Mine is one more vote to Keep the wetlands.

I understand the Port of Seattle must win the approval of the Corps of Engineers to remove 11 acres of wetlands before constructing the 3rd runway at SEA-TAC airport. I am strongly opposed to the removal of the wetlands. I believe that removal of the wetlands will Kill a good share of the salmon that usually use this area for spawning. My vote is for salmon and Keeping the wetlands. I agree with the 9 year old girl who replied when asked why salmon should be saved, 'They taste good!'

1

I Know your decision is difficult and I appreciate the opportunity to express my opinion. I urge you to deny the permit to remove the wetlands requested by the Port of Seattle.

Sincerely,
Donald H. Cone

2P-60

L98-110

Kathryn Dunn
17814 2nd Ave.S.W
Normandy Park, Wash.
98166

April 20th, 1998

Jonathan Freedman
Regulatory Branch
U.S. Army Corps of Engineers
Box 3755
Seattle, WA 98124-2255

Re: Wetlands permit for Sea-Tac Airport (your number 96-4-02325)

Dear Mr Freedman:

I was unable to attend the hearing held by the Corps on April 9th, so I am submitting my comments on the wetlands permit to you via this letter.

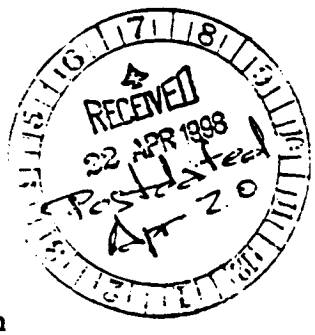
I want to omment in particular on the claim that the wetlands should be moved to Auburn because of native birds. That should have been considered – IF it is a problem – 26 years ago when the second runway was in contemplation. Of course, there is no bird problem of any consequence, nor would there be if the wetlands were moved within the existing drainage basin. And the birds were there first!

I am told by others who have read the FAA advisory circular on birds that the real problem is with active garbage dumps (land fills), and things like sewage lagoons, farming operations beside runways, and golf courses. Except for one golf course, none of these things exists near this Airport, so in truth there is no bird issue.

The underlying idea of destroying wetlands and channelizing streams is repugnant. I simply can't believe that anyone would even consider moving a natural wetland. The permit application should be denied.

Sincerely,

Kathryn L. Dunn



Jonathan Freedman, Project Manager
US Army Corps of Engineers
Regulatory Branch - Seattle Division
P. O. Box 3755
Seattle WA 98124-2255

Reference: 96-4-02325, Port of Seattle Section 404 Permit Application

Dear Mr. Freedman,

I am writing to ask that you reject the Port of Seattle's request for a 404(b) (1) permit that would allow construction of the 3rd runway at SeaTac.

As a resident of Burien I am opposed to their plan to fill 11.42 acres of wetlands. It is not fair to the residents of this community to have these wetlands destroyed. I don't understand how wetland mitigation in Auburn will benefit us in Burien. The proposed permit fails to consider the replacement of wetlands in the same basin system. I don't think enough research has been done on what effects filling this wetland will have on fish, birds and other wildlife and if and how they will be able to move to a different watershed in Auburn. It also fails to consider the effects of potential listing of Puget Sound salmon under the Endangered Species Act.

1

2

I also think more research needs to be done on the impact that approximately 26 million cubic yards of fill dirt will have on the Highline aquifer and the impact of moving the dirt to the site(damage caused by trucks and added pollution) and the removal of existing vegetation will have on the air quality and property values in my neighborhood.

3

My home is going to be negatively impacted. Where I live is going to have more airport noise when the trees and other vegetation are removed that now help buffer some of the airport noise.

4

More research needs to be done before these wetlands are destroyed by building a third runway, which will be outdated before it is built and an exorbitant expense that is not in the best interests of the community. Other alternatives need to be examined (like a different site for an airport) before these wetlands are destroyed.

Please deny this permit until more research is done and other alternatives can be found. Thank you.

Sincerely,

Susan Osterman

Susan Osterman
17215 Hillcrest Terrace S.W.
Seattle, WA 98166

April 20th 1998

Army Corps of Engineers
Regulatory Branch
Jonathan Freedman

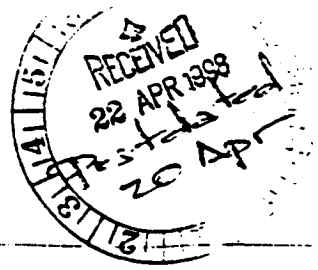
My family and I have been residents of Burien since 1971. My children 19-14 yrs. old. We live down the beach towards the true pt from Miller Ck. We have enjoyed this area, and would like to continue this.

The Wet lands are inhabitated by many migrant birds, home to nesting sea otters and a host of many other animals.

These Wet lands have been home to birds and animals years befor the conception of the 1st Sea Tac Airport. When and Where does the destruction and intrusion of Ecology stop. This is why I must plead my case of contempt to the Part of Seattle's Corps of Engineers to deny the permits to destroy yet another ecosystem.

Sincerely
Sharon Patton
2109-SW 174th St.
Burien, Wash

2P-63



Mr. & Mrs. Carl Torkko
2105 SW 173rd Pl.
Seattle, WA 98166

4-20-98

Dear Mr. Freedmen,

Re: Wet lands SEA-TAC AIRPORT.

As a Ranger-Naturalist for seven Summers (ending in 1971) at Olympic National Park, I am upset that the wet lands might be "plowed over" and eliminated. Any time man interfers with nature, the results are almost always bad. For example, Miller creek is connected with this wet land. Miller Creek was orginally a wonderful salmon egg "incubator". Miller Creek has had bird populations connected with it. I don't remember any airplane jet engines at Sea-Tac being affected by birds flying into the engines (I know the bird-jet engine problem has happened else where). Therefore, I don't want the wet-lands changed.

1

Thank you for reading this.

Carl Torkko M.S.

Retired Biology Teacher Highline H.S.
Retired June 1982 Seattle Wa 98148

April 20, 1998

To: U.S. Army Corps of Engineers (Seattle District)

Attention: Jonathan Freedman, Project Manager and other persons directly involved in the Sea-Tac Airport-Wetlands mitigation decisions

2P-64

Here I am facing another deadline with too many other facets in my life needing immediate attention.

Publicity about your hearing was not very headlined in what south end media is available to us, and I do read the papers, notices, etc., so I appreciate being able to come to your hearing. I am a reader of editorials and listen to news as I want to be an informed citizen on such critical issues as developed concerns affecting our lives, those of our three adult children who live in the South end - Des Moines, Federal Way, and Graham. Being a church choir director, missing a Maundy Thursday evening service creates a multitude of problems, but I "skipped out." (Too many of these airport-community meetings fall on Thursdays.)

I appreciated what I heard - the promise you'd read all our concerns - I could write a book - and I could've flooded your mailbox long before now - this is our first letter to you. I appreciated hearing such a variety of leaders and citizens from the Des Moines, Federal Way, Burien, Sea-Tac areas. Just wish I could have stayed past 10:15, as it was interesting to find out who a couple of the "pro-airport trading the wetlands issue" really represented, like the trucking company rep. from Auburn.

Our main concerns are: do not act too hastily, before irreversible damage is done; protect our water supplies; our aquifers; do protect birds and fish if it can be done fairly. There's got to be BALANCE. Don't pass new laws when the present "recent" ones may seem in error. Study all "sides" fairly.

I grew up just north of the airport, attended and graduated from the Highline schools, the U. W., and watched Boeing

AR 036695

Field give way to Sea-Tac Airport, its expansions and unfulfilled promises. My husband's parents and grandparents either homesteaded or were born in Des Moines as early as the 1890's. His father was on the Des Moines Water District #54 for many years, & on the Des Moines School District board before it became part of Highline, so he's been aware of water quality concerns for years.

When we purchased our first home in this area in '65 we purposely did not buy under the 16 – 20th Ave So. runway and when we purchased property for our present home - in 1962, we tried to avoid the main problems with the airport. (We built this home ourselves)

Again we want you to make fair decisions. We thank you for letting such knowledgable, informed speakers (for the most part) be heard. We are concerned about making trades of acres of wetlands; the consequences resulting from such a trade of acres and what it'll do to Auburn, too - we have a brother living near the Long Acres and we are knowledgable, we hope, about Puyallup River drainage / Hylebos and all the issues you are faced with.

2 We do not think it wise to transport acres of contaminated fill, or is it really wise to fill in such "Earthquake prone area? Mark studied about all these concerns back in 1948 and they knew then about arsenic in water and ground on Maury Island and Vashon.

Our lives have been greatly impacted by your past decisions and by Port of Seattle decisions. Mark taught in the Highline District for 24 years - 17 of them at Mt. Rainier High, where all our children also attended and we know

3 the port has not fulfilled its previous promises, especially concerning NOISE pollution. How can we expect them to respect any new mitigations.

Thanks for reading this, and for finally letting Des Moines, Burien, and Normandy Park citizens be more fairly heard.

Margaret Van Gasken
248 So. 212th
Des Moines, Wa. 98198

AR 036696

(97)

2P-65

To U.S. Army Corps of Engineers.

I'd like to thank you for the open hearing. We need more of this to get all sides out into the open.

I want you to know that I wholeheartedly agree with my wifes statements. I'm glad you are taking time to hear the people as most of us do not trust the govt at this time.

A few questions:

1 | Will the fish that have been saved for so lovingly in Des Moines creek, be able to survive?

2 | This whole wetland issue is so vast. How will this huge area be fairly taken care of?

3 | Have there ever been a problem with wildlife (Birds) at Seatac?

Thank you for your time. Lets find another cheaper place for the 3rd Runway.

Sincerely

Marlette Gaskin

418 So 212

Des Moines Wa 98198

RECEIVED
20 APR 1998
POSTDATED
20 APR

AR 036697

Diane J. OLson
16408 8th So.
Sea-Tac. Wash.
98148

U.S. Army Corps of Engineers
Regulatory Branch
Post Office Box 3755
Seattle. Washington 98124-2255
ATTN: Director. U.S. Corps of Engineers

To whom it may concern.

The proposed drainage channel between 160th street and 168th street on plan sheet 18. In that area there are adult Chinook Salmon. Steelhead Salmon as well as Trout.

The erosion. sedimentation and contaminants from construction. construction machinery and glycols. have to have an effect on fish. Those fish will be eaten by: Bald Eagles. Great Blue Heron. possibly Goshawks. Red Tail Hawks. Peregrine Falcon. Great Horned Owls. Racoon and people.

The use of concrete will also effect: fish. wildlife the ecosystem and people. even down stream from the buyout area. There was a portable concrete plant on the airport property in the past. Which might explain the milky color in Miller Creek. at times when the concrete plant was there.

1 I have noticed. in the winter when the Airport is using glycols. for deicing. the Great Blue Heron will not come to my area of Miller Creek. The Herons are like the guardians of the ecosystem. As soon as the ecosystem starts to deteriorate. the Herons are the first to leave. They return when the glycols are not being used. How much of the glycols can the wildlife ingest before it kills them?

Endangered and threatened bird species. also some of the other birds need old growth trees for their existence. Loss of trees means more pollution and more noise around the airport.

It doesn't take a Rocket Scientist to see that destruction of homes. trees. filling for a third runway. construction of Airport facilities. noise. dust and pollutants will effect wildlife. including threatened and endangered species. people and possibly the Hiline Aqifer.

2 Has there been a geological study done on the fill area of the proposed third runway? To see what the effects the fill might have on the underlying aquifer? It obviously is going to add a lot of weight or pressure to it.

In my yard. springs shoot out of the ground. at times 10 to 12 inches. sometimes even in the summer. My property is very close to the watertable. If this spring water can't make its way to Miller Creek. what will happen? Maybe a swamp? There are many springs in the area that I live. in the westside accusition area.

The Hiline Aquifer is used by some water districts. for drinking water. this includes the City of Seattle.

The Port of Seattle (Sea-Tac Airport) is known to be an excessive polluter. If the pollution hasn't already reached the Hiline Aquifer. it will.

About the time the second runway was being built. Miller Creek became horrendously polluted. I can't say why. but you couldn't touch the water in the creek without getting sores on your skin. This happened to me and my daughter. No fish were there anymore. this lasted for about five years. Now the fish are back. I want to keep it that way! The westside of Sea- Tac Airport is a wildlife paradise. that can't be replaced.

For 26 years I have left aprox. one fourth of my property in it's natural state and would have left more if not for a sewer main being put through my property. So I could protect and preserve the wildlife. I am outraged with the plans the Port of Seattle has for this area.

The Bald Eagles wouldn't be living in this area if there wasn't an abundance of food: Chinook Salmon. Steelhead Salmon and Trout.

Relocating Miller Creek. piping it or making it into a concrete ditch. certainly won't enhance

Salmon habitat. or the habitat of the Salmon's food. Piping the creek would deprive them of fresh air and sunlight.

The site where Emerald Downs sits was once a wetland. (not as complex as this one) and the wetlands there are still trying to come back. Every year they have to redo the track. The artificial wetlands that were made to replace the original. still doesn't have the wildlife the original wetlands had. People don't usually know what they have to loose until its gone. So lets not loose our wetlands. Making artificial wetlands is not a exact science. Wetlands that are to be constructed in Auburn. will not help the wildlife in this area. It would be better to put a satellite airport in another area and leave the wildlife here alone.

I am not going to give any alternatives to the present wetlands. because there isn't any. I am going to give alternatives to the third runway.

3

A new regional airport. which will be needed even if there was a third runway. So why spend all the money. (the costs are sky rocketing) for the most expensive runway in U.S. history. when it won't achieve much or make much of a difference .

I think a new regional airport on Indian land should be proposed to one of the larger tribes. The land could be leased for a hundred years with the option for more time. It would benefit the public and bring much needed financial help to the tribe. There would be jobs for Native people. Hotels. restaurants. motels. car rentals and other businesses would want to lease land for their businesses too. It would be a win. win situation. that many would benefit from.

Another alternative would be to buyout one of the smaller airports and expand it.

A new regional airport if located in King County should be further east of Sea Tac Airport and Boeing field. which wants to expand their 800 foot runway to 10.000 feet. to the south. Which will bring those two airports closer together and cause more air traffic congestion.

Every large project that has been built or is being built at this time. seems to be built in an area that would cause traffic congestion. Large projects need to be spread out from one another. Know one wants to spend hours trying to get from one place to another. or have a midair collision.

My objective is to stop the buyout of the westside of Sea Tac Airport. to save the wetlands. wildlife and the probable pollution of the Hiline Aquifer. To have the State of Washington pick a suitable site for a new regional airport. Which we all know will be needed anyway. To stop the sky rocketing cost of a third runway. that won't make much of a difference. That taxpayers will likely end up paying the majority of. To try to install some foresight and future vision to this absurd project. which is totally illogical.

4

The Port of Seattle concerning Eminent Domain.

The State of Washington law says. private property shall not be taken for private use. So why is Boeing and other business on Port of Seattle property accuired by eminent domain? Isn't that like profiteering and why has it been allowed when it is agains't the law? Is this going to happen in the westside acquisition area?

5

My husband is the sole support of my family. (I have a permanent disability from an injury 30 years ago) works for a major road construction company in the area. He has been told. construction of the third runway will put the company out of business. The reason being. it would not be economically feasible to haul materials from such a great distance. The extra man hours involved and increased costs. Since the third runway would take so much fill materials and deplete the local sources. The construction of a third runway will likely effect other companies and their employees. reducing jobs in the area. Probably including increased costs of road and freeway construction. for: Washington State. the five counties the third runway fill material is to come from and the cities in the five counties.

LIST OF WILDLIFE IN THE PROPOSED THIRD RUNWAY BUYOUT AREA.

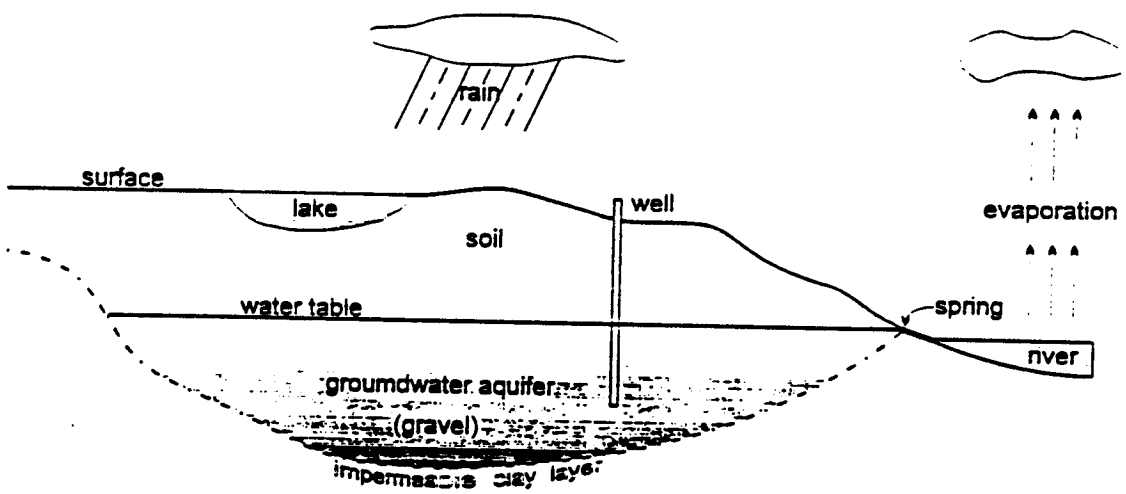
BALD EAGLES
PEREGRINE FALCON
GREAT HORNED OWL
GREAT BLUE HERON
RED TAIL HAWK
GOSHAWK

DUCKS (mostly mallard)
CHINOOK SALMON (adults up stream from me)
STEELHEAD SALMON (adults up stream from me)
TROUT
CRAWFISH
EEL
TREE FROGS
WATER FROGS
PERIWINKLE
OPPOSOM (some albino)
SKUNK
COYOTE
RED FOX
RACOON
RABBIT
GRAY SQUIRREL
RING NECK DOVE
CROW
BLUE JAY
RING-NECK PHEASANT
CALIFORNIA QUAIL
BARN SWALLOW
CHICKADEE
OREGON JUNCO
HOUSE SPARROW
HUMMINGBIRDS (some varities)
PILEATED WOODPECKERS
RED-SHAFTED FLICKERS
DOWNY WOODPECKERS
ROBIN (have seen albino in the area)
VARIED THRUSH
STARLINGS
BLACK-HEADED GROSBEAK
EVENING GROSBEAK
GOLD FINCHES
ROFOUS-SIDED TOWHEES
AND PROBABLY SEVERAL OTHERS I HAVE LEFT OUT.

Groundwater Is Important

Less than 5 percent of the fresh water in the United States is surface water in lakes, streams and rivers. More than 95 percent of our fresh water is underground. This groundwater is the primary source of drinking water for 90 percent of rural residents. At least three-quarters of all municipal water supply systems use some groundwater. Many industries use well water in their production processes. At least 30 percent of the water which farmers use for irrigation is groundwater. We depend on groundwater. We need it to be clean and free of contaminants.

A Look Underground



Beneath the surface of the earth are many different materials, including soil, sand, gravel, clay, shale, sandstone and hard rock. These materials are usually in layers. The types of materials, and the size and order of the layers varies from location to location. The figure shows a typical arrangement.

Groundwater Movement

Where does groundwater come from? It's water that *percolates down* from the surface, passing through permeable layers of soil, sand and so forth until it is stopped by an impermeable layer of clay or solid rock.

Surface water and groundwater are not the same thing, but they are related. Surface water can percolate down through the soil and become groundwater. When groundwater comes out in springs it becomes surface water, flowing into lakes and steams. Surface water evaporates, forming clouds. The water in clouds falls as rain. Rainwater soaks into the ground and percolates down to join the groundwater again. The groundwater can again emerge in springs on the surface, and so on. This is called the ***hydrologic cycle.***

How long does it take for water from the surface to percolate down to an aquifer? This depends on how permeable the layers are that the water passes through, and how far it is from the surface to the water table.

Groundwater can also move sideways through permeable layers. However, its movement is very slow compared to the way water moves in a lake or river on the surface. In the same way that the baffles in a fuel tank keep the liquid from sloshing around, the pieces of sand or gravel in the permeable layer act like millions of tiny baffles slowing down the movement of groundwater. Groundwater movement may be as slow as a few inches per day.

Because groundwater moves so slowly, it takes a very, very long time for contaminants in groundwater to wash out.

Groundwater can flow through cracks in rock, or between rock layers. In this case its movement may be faster.

Groundwater can also flow through artificial channels such as wells and mine shafts. These may allow water to get past otherwise impermeable layers.

In some places the water table extends close to the surface. Then groundwater discharges (pours out) to form a natural ***spring,*** or may flow directly into nearby lakes and streams. We also pump groundwater to the surface through ***wells.***

AR 036702

I have been asked to represent the Sierra Club in opposing the destruction of the wetlands for the third runway project.

Several important issues must be addressed which would require an E.I.S. review:

1 | 1)Since the Port has not submitted procedures to excavate, transport and the placement of the fill material,what will be the adverse effects on the environment(wetlands,plant,animal, aquatic life,water and air quality) surrounding both the borrow sites and the haul routes? How will the aforementioned be protected?

2 | 2)Will the placement of the fill dirt on the existing wetlands provide a stable foundation that would not be subject to seismic activity(such as placing a stack of cookies on a bowl of jello?)

3 | 3)What effects will the fill dirt (compacted to 98%) and other nonporous (concrete,etc.) materials have on the recharging of the aquifer?

4 | 4)Why has the Port not explored expanding or enhancing existing wetlands in the same watershed?

5 | 5)Why has the Port not attempted to make a detailed short or long term plan to establish and maintain viable wetlands in the Auburn area?

6 | Until the funding for the entire project and the consent of the airlines(both of which are in question) is resolved, the issue of a 404 Permit is premature. This probable defunct project would cause irreversible damage to the environment.

Simon Miedema
638 So. 146 ST.
Burien,WA.
Phone# 206-242-9239

I would like the U.S. Army Corps of Engineers and the Washington Department of Ecology To know that you have already caused too much environmental damage to Miller and Des Moines Creeks. The Port has not identified all the wetlands that would be affected by the Third Runway expansion. They also claim to be able to create "new" wetlands to replace the ones they want to destroy. Enough environmental damage has already been done in the past and it's time to leave our natural environments alone before it's too late.

Therefore I oppose the issuance of Permit 404 to the Port.

Darby Nisbeth
638 So. 146 St
Burien, WA, 98168
Phone # 206-242-9239

CITIZEN COMMENT ON APPLICATION FOR PERMIT REFERENCE: 96-4-02325

The western band of trees and other vegetation on the airport perimeter ~~of the airport~~ currently being decimated in preparation for the first phase of third runway construction serves as a buffer for the chemical mixture of fuels, oils, ethylene glycol, and other substances that comes from the operating environment of the airport. This buffer provides some measure of protection of the wetlands to the west by dissipation by filtering, absorption, and consumption of the chemicals. When this buffer is gone the path to the wetlands and streams to the west will be laid bare allowing this chemical soup to go directly into the remaining wetland water table. Habitat for wildlife will be destroyed at the fill areas. Habitat in the remaining wetland areas to the west will be devastated by the deteriorated water quality. Salmon habitat in the Miller creek estuary is a breeding resource which will not be replaced by the proposed mitigation.

The impact of filling the peat bog wetlands at northwest end of the proposed runway and along Miller creek ~~to the aquifer and glacial strata~~ below have not been satisfactorily addressed. What will be the impact? Will all this fill force existing chemicals into the ground water table entering the aquifer? Experience has shown that chemicals will seep downward to the aquifer, Hanford, WA and Woburn, MA being examples.

The quality of life in residential areas to the west will be seriously impacted by the reduced water quality and reduced wildlife habitat in the immediate area. The filling and devastation of wetlands addressed by this proposed permit must not be allowed.

Charles and Charlotte Sullivan
17705 3rd Place SW
Seattle, WA 98166
(NORMANDY PARK)

I live on Miller Creek. I have enjoyed it's beauty and its wildlife for 20 years. It is a special waterway, to be enjoyed for all seasons. Some of the wildlife I have seen over the years have been: blue herons, river otters, merganser ducks, crawfish, and other assorted fish. The river bed is a natural drainage area for the Burien, Sea Tac,and Normandy park area. I have seen Miller Creek handle up to 500 cubic feet per second with very little evidence of overflow.

Therefore to move the drainage area of Miller Creek for a proposed runway is a major mistake. This is a beautiful creek; not meant to be filled in, or rerouted. There is also a proposal to widen the 156th bridge over Miller creek. This would wipe out up to 100 exra feet of pristine waterway. The area north of the creek is a prime wildlife section, for ducks, blue herons, river otters wand crawfish. This portion of Miller Creek would be covered with a new bridge, and lost forever to viewing. 1

Also lost in this needless construction would be a host of waterplants such as: water lillies, watermint, water iris. astilbe, flowering rush, pampas grass, and many others. Miller Creek is a beautiful waterway encompassing fish, fowl, and abundant plantlife. Do not let this creek be moved or tampered with by airport expansion.

In the fall of 1997 Miller Creek was deluged with mud from the north airport parking lot construction. The creek looked like heavily creamed coffee for weeks at a time, beginning in October. The creek remained muddy throughout the winter, and into the spring. It is now starting to clear up, some 7 months after the finish of construction. If this is what parking lot construction can do, what will a 3rd runway with over 7 kingdomes of dirt hauled in, do to pristine Miller Creek. The proposed runway will be aproximately 200 to 250 yards from present Miller Creek. This creek would never be the same again if the proposed 3rd runway were allowed to be built adjacent to this lovely waterway. Please do not let the construction of this unnecessary runway go forward. The ruination of Miller Creek, and other adjacent wetlands is at hand. 2

Scott McBreen
15458 Des Moines Mem Dr
Seattle Wa 98148
206 244 8116

- Good evening. My name is James Lilje. I am a Captain with United Airlines based here in Seattle. I currently fly Boeing 737's in our shuttle by United operation.

- I'm here tonight to encourage you to approve the 404 permit for the Port of Seattle, because as a pilot, I am keenly aware of very real dangers posed by bird strikes.

- Wetlands attract large birds like geese and ducks as well as flocking birds like starlings. When a modern jet aircraft collides with a bird the encounter is not only fatal for the bird but also often causes severe damage to the airplane. Components frequently damaged in bird strikes are the windshield, engines nose and wings. During the five year period from 1992 to 1996 16% of the bird strikes reported to the FAA resulted in damage, with an average monetary loss of over $108,000.

- Bird strikes not only cause economic loss but have the potential to put the passengers and crew of the aircraft in peril. The flight controls can be damaged. Birds can be ingested into the engines causing inflight failures. A large bird can penetrate the windshield injuring and possibly disabling the pilots.

- The FAA reported that 14% of bird strike incidents had an adverse effect on the flight. Over the years more than 200 people in this country have lost their lives in bird strike related crashes. Most recently, in September, 1995 a U.S. Air Force E-3B (a Boeing 707 derivative) crashed just after takeoff from Elemendorf Air Force Base when it struck a large flock of Canada Geese. Geese were ingested into two of its engines causing both to lose power. The aircraft was destroyed and all 24 people aboard were killed. Just last week, a jet departing Sea-Tac collided with a Canada Goose and had to return to airport to be checked out.

- The closer to the ground an aircraft is, the greater its expo strikes. 88% of all bird strikes occur at an altitude of le feet above of the ground. 55% of all bird strikes occu aircraft is on the ground during takeoff or landing of less than 100 feet.

- The only time that air carrier aircraft routinely operate at less than 2000 feet is during takeoff and landing operations. It is obvious that if bird activity increases near an airport the potential for bird strikes can rise greatly. This is the reason the FAA has prohibited airports from creating new wetlands within two miles of airports. It is my understanding that the Port of Seattle was unable to find a potential site in the Miller creek basin large enough to accommodate the new wetlands which is also more than two miles from the airport.

- As a pilot, and on behalf of the millions of passengers who fly through Sea-Tac each year, I encourage you to seriously consider the safety implications, and approve this permit.

..."UNDO THE DAMAGE."

2P-72

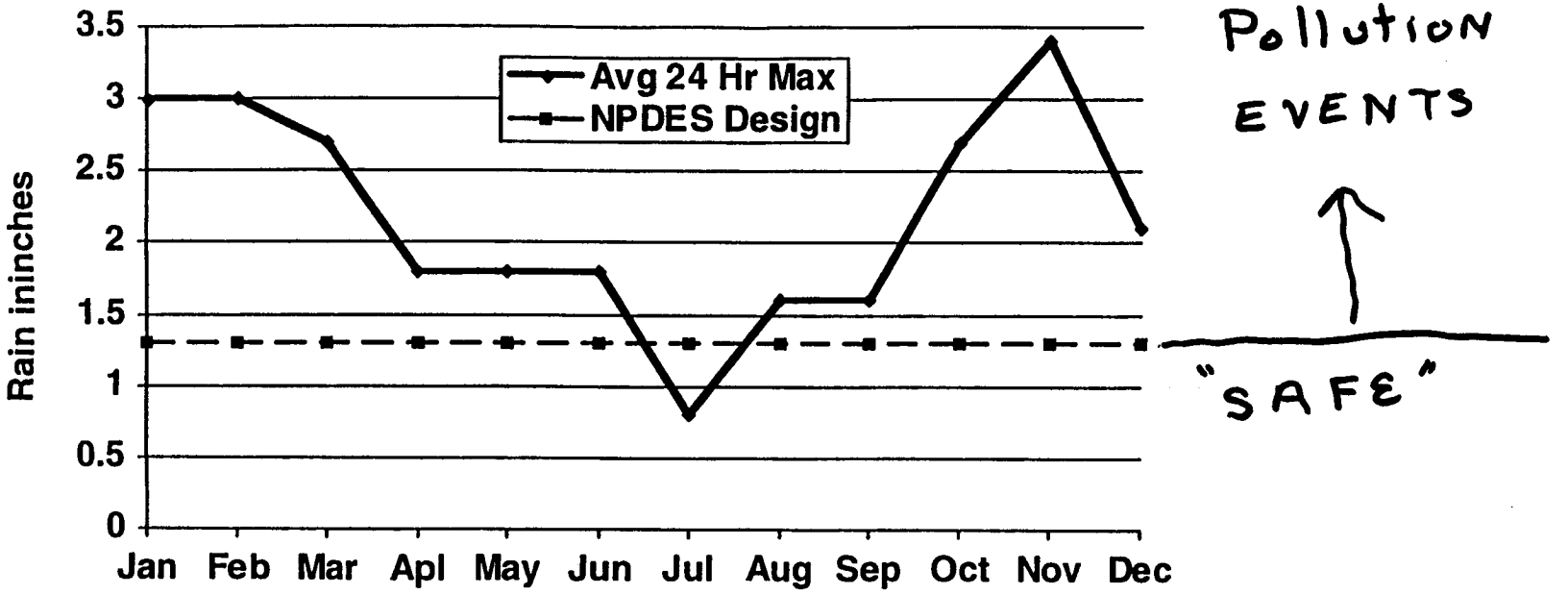
When the Army Corps of Engineers built flood control gates in the Florida Everglades they did so with good intentions. Now they are removing the gates to Restore the Everglades.

The Port of Seattle wants to fill in the Laura Lake/Miller Creek ecosystem with the Third Runway! This would be destruction of this wet lands ecosystem.

Seatac Resident

Donald A. Slatter
1002 So. 170th St
Seatac WA 98148

Wetlands help absorb water and pollution
Compensate for containment designs that are inadequate



Sea-Tac's average max 24 hour rainfall FAR EXCEEDS the NPDES design limits 11 out of 12 months per year

(Federal Climate Complex Asheville for for Sea-Tac Airport (Lat 47 27N, Long 122 18W, elevation 450 ft), 1948 through 1990 compared to the NPDES Summary page 107)

DESTRUCTION *to* RECONSTRUCTION:

Restoring the Everglades

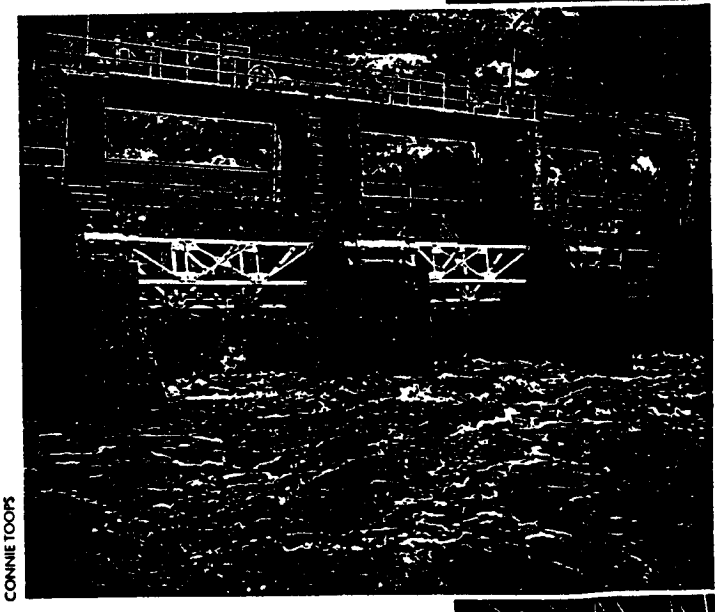
FROM NPCA MAGAZINE

More than 50 years ago, the Army Corps of Engineers undertook a flood control project that drastically altered this distinctive ecosystem. Today, Congress has ordered that same agency to undo the damage.

BY DAVID HELVARG

LARRY ULRICH

THE WATCHFUL EYES of alligators, the slither of snakes, the startling break of snowy egrets taking wing from a hardwood hammock, the struggle of a black-feathered anhinga to swallow a fish half its size and then collapsing on its belly, a victim of its own gluttony. These images are more than Kodak moments. They are reminders of the unique wetland ecosystem that is now so at-risk that the 1.5-million-acre Everglades National Park has been called the most endangered national park in America. As



CONNIE TOOPS

The same year Congress established Everglades National Park, it directed the Army Corps to complete a massive flood control project.

AR 036711

I'm Arlene Brown, 239 SW 189 Pl Seattle, WA 98166 - Not sentences - written in testimony style

Fact or Fiction?

The EIS's treatment of engineering data borders on criminal. We will have to wait until the lawsuit later this year to see if it gets thrown out like the one in California that we helped get thrown out.

The EIS is very confused. It "accidentally" attributes the advantages of the extending the existing runway to the Third runway. The EIS DATA says the Third runway increases the risks of accidents by more than 21 %, its too short for big jets, and will exceed practical capacity before it opens - All according to the FAA estimates. Of course the Port ignored the FAA estimates just like they did for the second runway. That's why we are here today, and why we will be here again, unless you put a stop to this craziness now.

If the EIS had compared against the second runway operation limits set by mitigation, the new pollution would be about equivalent to all the pollution that came out of the airport last year - it CLEARLY violates both the Clean Air and Water Acts. But the Port worked its magic and compared apples with oranges when they had the pollution models run. It would be great if their models and Stormwater Manuals design limits held water - They have solved traffic congestion, provided all of us next century vehicles with low emissions, reduced the rainfall to low July levels so its easier to design pollution containment systems, eliminated known contamination sites and the list goes on and on.

Two major points I'd like to make

1) De-icer pads are according to Lisa Zinner, "the best way" to control de-icer pollution. How can you allow a Third Runway when it will rob us of the opportunity to implement the required AKART pollution mitigation? the discharge permit AKART plans must be identified FIRST

2) Knowing the hydrology problems we already have - sinking of First Ave, spring popping out of nowhere causing Miller Creek sediment problems, fluctuating levels in Angle Lake, flooding

Knowing the retaining wall is not sloped properly so a massive landlslide is inevitable

Knowing that the wrong conductivity was used when calculating how long it will take the North Sea-Tac parking lot to contaminate Seattle's drinking water supply

Can you really justify proceeding without a valid UPDATED hydrology and soil study including a wetlands assessment?

Do the Port a favor, they are just starting to get an inkling of how expensive this project will really be, nothing like bids that are 48% over the planning number to wake people up, Deny the permit. Don't be like the three monkeys, see no evil, speak no evil, hear no evil.

Look at the data, not the propaganda. Save lives, water and wetlands

These are in addition to the comments already provided in a letter dated Jan 8. 1998 regarding the same subject.

Essential Wetlands & Water Hearing
9 April 1998

- EIS **neglected to distinguish** between the advantages of a 600 foot extension of an existing runway and the disadvantages of the proposed short Third Runway
- EIS fails to identify ALL impacted wetlands
- EIS grossly underestimates pollution
- Obsolete EIS ignores crucial nature of water, wetlands, threatened and endangered species
- Premature to issue Permits or Certificates of Compliance

AR 036714

EIS Data does NOT support a Third Runway

- EIS conclusions fail to differentiate between the advantages of 600 foot extension of an existing runway and the disadvantages of the proposed Third Runway
- Third Runway EIS data buried in the thousands of pages
  - Increases the risk of accident by more than 21 %
  - Weather data has more than 12 months per year
  - Reduces capacity of existing Sea-Tac runways
  - Reduces the capacity of Boeing Field
  - Exceeds "Practical Capacity" even if it opens in 2005 per FAA
- Recommends another EIS in 2000 due to unresolved issues

AR 036715

Third Runway is Unsafe

- FEIS page R-43 states there is a **21 % increase** in on-the ground incursion rate. Note, if calculated using realistic number of operations accident rate would be even higher.

- Using the Third Runway requires taxing across two active runways. The air space would also be shared with another airport, Boeing Field. Excerpts from a petition signed by commercial airline pilots follow:

"... Our association, A.L.P.A., has not endorsed the proposed 3rd runway because of its marginal safety"

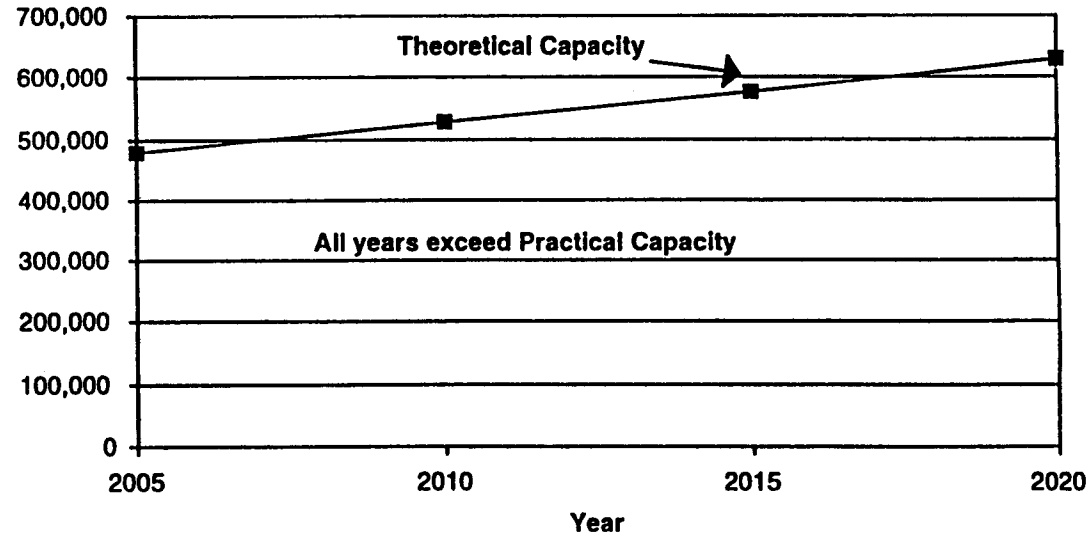
AR 036716

Port Ignored FAA Estimates - 2nd Runway Mistakes All over Again

- Using the 1997 FAA TAF (Terminal Air Forecast) estimate and NPIAS standards in SEIS Exhibit 2-7, the Sea-Tac airport with the Third runway will
  - Exceed practical capacity before it opens
  - Be severely congested by 2010
  - Be able to support only an additional 68,200 operations after 2010 before it reaches its theoretical maximum capacity of a mere 600,000 operations.

AR 036717

FAA TAF Operations Estimate for Sea-Tac

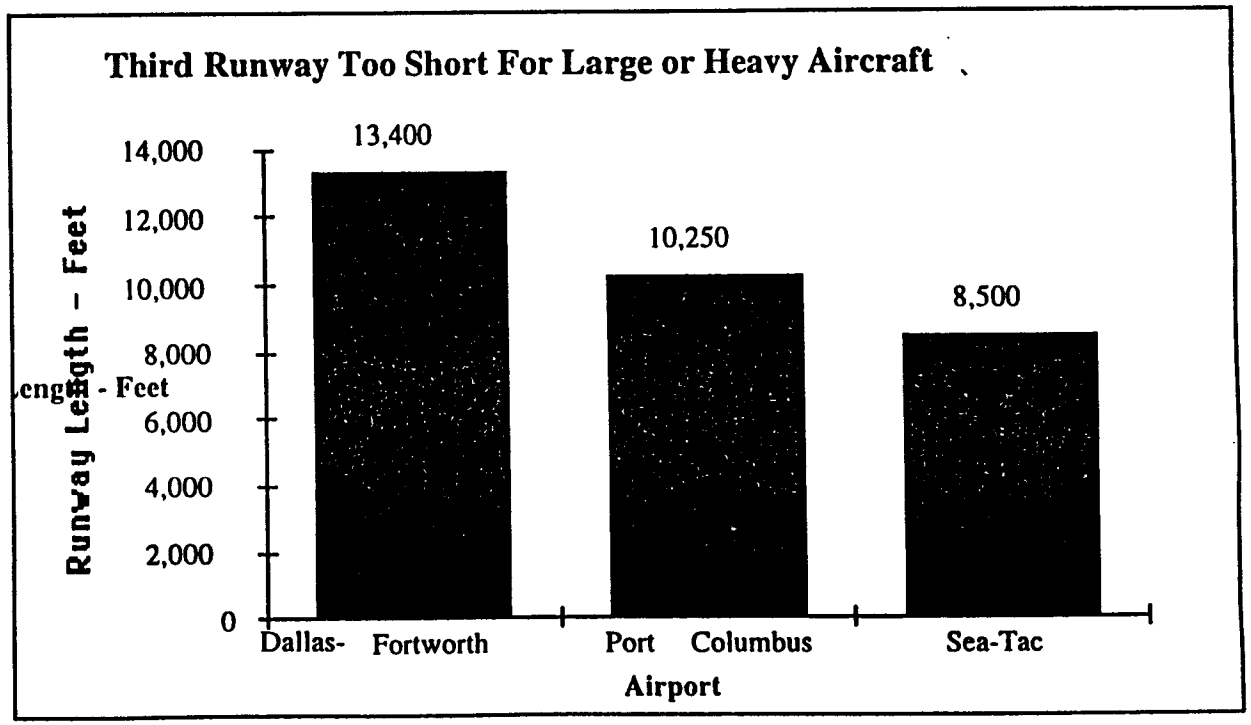


Runway too short for large aircraft

- The proposed runway is too short to handle fully loaded cargo planes.
- The FEIS states the 8,500 foot runway is too short for **B-747, DC-10, MD-11, L-1011 or B-767** (Ref. (d), page R-126).
  - Other airports have considered the new, larger airplanes that will be in use by the time the Third runway is built as well as the existing large passenger and cargo jets.
  - Albuquerque airport dismissed an alternative to build a runway of the same length, i.e. 8,500 because of its inability to support Type V aircraft. (ref. ttt).
- The industry preferred runway length is several thousand feet longer than Sea-Tac's proposed part time arrival runway !!

AR 036719

Table 2 Proposed Runway Too Short for Large Jets



Note, the Albuquerque airport dismissed an alternative to build a runway of the same length, i.e. 8,500 because of its inability to support Type V aircraft. (ref. ttt).

AR 036720

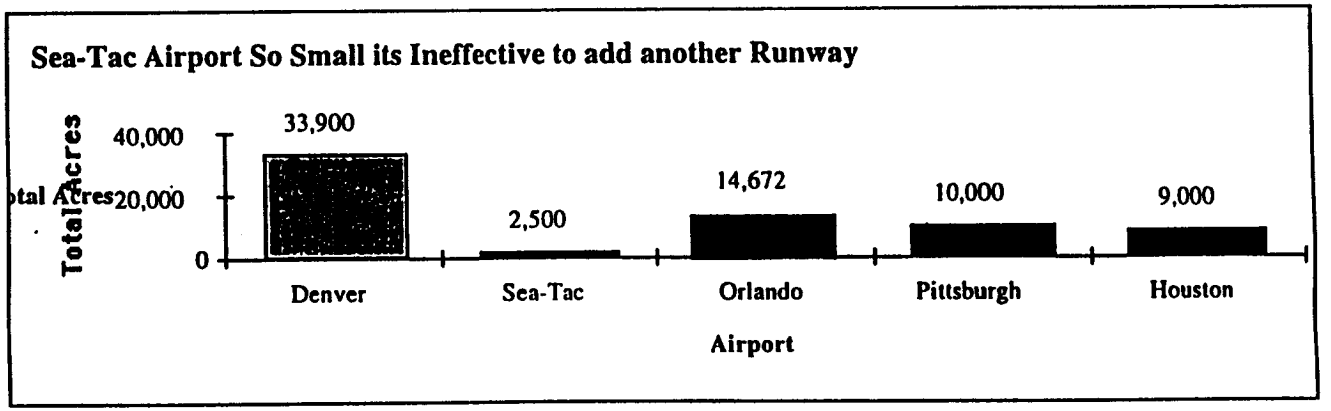
Airport Location and Size Incompatible with Significant Growth

Port Columbus is obtaining 240 acres to build a new 10,250-foot third runway (ref. (p)). Compare that to Sea-Tac basically taking several blocks of a residential street with houses lining one side of it.

When other small U.S. airports don't have room to expand because of heavily populated areas, they use another airport or technology to increase their capacity. For example, Charlotte with 5,000 acres and San Francisco with 5,400 acres opted for Localizer Directional Aid technology instead of additional runways. It is the airports with large acreage that can afford to add runways or those with large buffer zones. Comparing airport sizes, runway lengths and capacities, using data in the FEIS (ref. (d), page R-201), it becomes obvious that even with the proposed land acquisition, Sea-Tac's proposed expansion is too small to be cost-effective and safe. See figure.

AR 036721

Airport Location and Size Incompatible with Significant Growth



New airport in Mirabel, Canada is over 35 times larger than Sea-Tac

AR 036722

Wildlife Attractions are wetlands and water,
Third Runway should not be built

- Examples of items within 10,000 feet:
  (1) bald eagle nest on Angle Lake just 3907 feet from airport (see FEIS)
  (2) bald eagle nests in Normandy Park.
  (3) Normandy Park Park (hiking trails in forest)
  (4) Burien Park
  (5) Marine View Drive Park (hiking trails in forest and along water)
  (6) Puget Sound
  (7) Many Lakes (Lora (visited by an otter annually, Arrow, Bow, Tub, Angle, and possibly Arbor Lake depending on which map in the SEIS is scaled accurately)
  (8) Several creeks including Miller, Des Moines, Walker and Gillian

AR 036723

FAA : "Wildlife Attractions" means "Garbage Landfills"

The SEIS interpretation of the wildlife rule is different than the verbal interpretation the FAA gave A. Brown in 1994. They told her it only applied to things like garbage landfills and the fact that we have wetlands, bald eagles and a strip of restaurants adjacent to the airport was irrelevant. They noted that bald eagles do not present the bird strike hazard that geese do because of where and how they fly.

Fourth and Fifth Runway needed Now per FAA Guidelines

- Even if the Third runway was operational in 1997, using FAA guidelines that at 60% Annual Service Levels (ref. (ttt)) alternative planning for a fourth runway or use of alternative airport(s) should have begun years ago. Waiting until the year 2000 for another Master Plan Update is contrary to FAA planning guidelines (60% of 600,000 max. operations with Third runway = 360,000 operations). According to FAA guidelines when operations reach 80% capacity, construction should start. That means fourth and maybe a fifth runway are needed about the year 2005 using FAA TAF estimates and 2010 using the Port's estimate IF the Third runway was already in use

AR 036725

EIS Fails to consider Realistic Alternatives

- EIS ignores cost -effective and environmentally preferred alternatives
  - Technology used by other airports to avoid expanding into heavily populated areas
  - Another Sea-Tac runway on existing property with updated technology
  - "'Flat" Tenino with easy access to I-5, rail and state capital
  - Use of other existing airports
- SEIS states Sea-Tac Airport is surface transportation limited

SEIS recommends another EIS in 2000 - before Third Runway is completed !!!!!!!

AR 036726

Project clearly triggers diminimus levels of Clean Air Act

and

Clean Water Act

if the correct number of operations are used

AR 036727

Pollution comparison calculations ignored about the same amount of pollution created by the airport in 1997

Basis of Pollution Calculations /1/	Additional Annual Operations with Third Runway compared to "Do Nothing"
SEIS for Year 2005 - (Uses New Port Estimate)	0
SEIS for Year 2010 - (Uses New Port Estimate)	14,000
Do Nothing at Theoretical Maximum, Third Runway at Yr 2010 FAA TAF amount	128,200 /2/
Comparing both at Theoretical Maximums	230,000 /2/
Comparing the 2nd Runway mitigation number of operations to theoretical maximum for Third Runway	**369,000 /2/**

AR 036728

Total Project Undefined

- Wetlands impact when two seismic anomalies near 12 St are excavated and replaced with an unknown amount of fill ?
- Wetlands due to underlying aquifer yet to be identified ?
- Wetlands impacts from new strip mining permits ?
- Wetland impacts from new roads to carry the trucks to rail site ?
- Wetlands impact from conveyer from Longacres ?
  - Barging arsenic contaminated fill into Des Moines Marina or Duwamish is UNACCEPTABLE
  - 100% Trucking too expensive and traffic volumes would create major schedule slides - over 1,500,000 double haul trucks
- Wetlands impacts from the proposed year 2000 EIS improvements
- Wetlands when they a build a new terminal because its unsafe and cause delays to taxi across two ACTIVE runways
- Wetlands when they extend the Third runway so large jets can use it

AR 036729

Amount of Fill Needed Unknown

- Calculations in error according to Univ of Florida SEIS comments
- Peat bog nature does not appear to have been fully addressed
- Seismic anomalies that liquefy in an earthquake need to be replaced
- Contaminated areas need to be replaced
  - Port has even forgotten about the soil that is known to be contaminated such as that in the proposed Snow Equipment Storage Shed area (ref. (ggg) from Port contradicts FEIS ref. (d) page IV 21-2).

- At least 28 Million cubic yards are needed
  - Football field piled higher than Mt Rainier
  - Requires new strip mining permits
  - Less fill available in the airport area than originally assumed

AR 036730

Less fill is available near the airport than originally planned

- Prior to the release of the Draft EIS, due to wetlands concerns, some potential borrow sites were eliminated
- Department of Natural Resources reversed their SEIS position regarding the strip mining of Port owned property in Des Moines without a permit.
  - RCW 78.44 will be enforced and the Port is required to obtain a permit.
  - The community opposition and devastating environmental impacts of strip mining Des Moines will make it very difficult to obtain a permit.

AR 036731

FEIS Mitigation Ignored During Initial Hauling

- Trucks were uncovered and petition by citizens to request Sea-Tac Public Works invoke that optional clause in permit IGNORED
  - Fill literally poured off the sides of trucks
- FEIS "conducting activities during the dry season" (April though Sept) to mitigate pollution didn't happen
  - 1997 hauling continued through a wet October
  - 3 inch wide dirt band under windshield wipers if drove by few times
  - Coughing as drove by airport
  - High incidence of respiratory illness per pharmacist
  - Homes and businesses in adjacent cities required more dusting

*If you ratio the amount of dirt to the number of months needed for the current permit work and assume the same rate for the Third runway, it would take over 50 years to haul the 26.4 * million cubic yards of dirt !!!*

** SEIS number but real amount is more*

AR 036732

Implementation of Third Runway now May Prevent Implementation of Meaningful NPDES AKART for Airport

- Required AKART plan in NPDES is still incomplete
- De-icer pads to capture glycols were eliminated from consideration due to insufficient land. Yet, the Third Runway creates land by eliminating wetlands.
- Resources must be allocated to accomplish AKART prior to planning the Third runway
  - Money
  - Land
  - Construction schedule with acceptable airport delays

Successful mitigation of the 1970's Second Runway needs to be accomplished prior to approving permits for a Third runway

AR 036733

De-icers Pads Best for Controlling De-icer Pollution

"It doesn't work for Sea-Tac to do what the new Denver Airport has done, which is have a **dedicated de-icing area, and that would work the best**, but its hard to go in and retrofit an airport to do that.

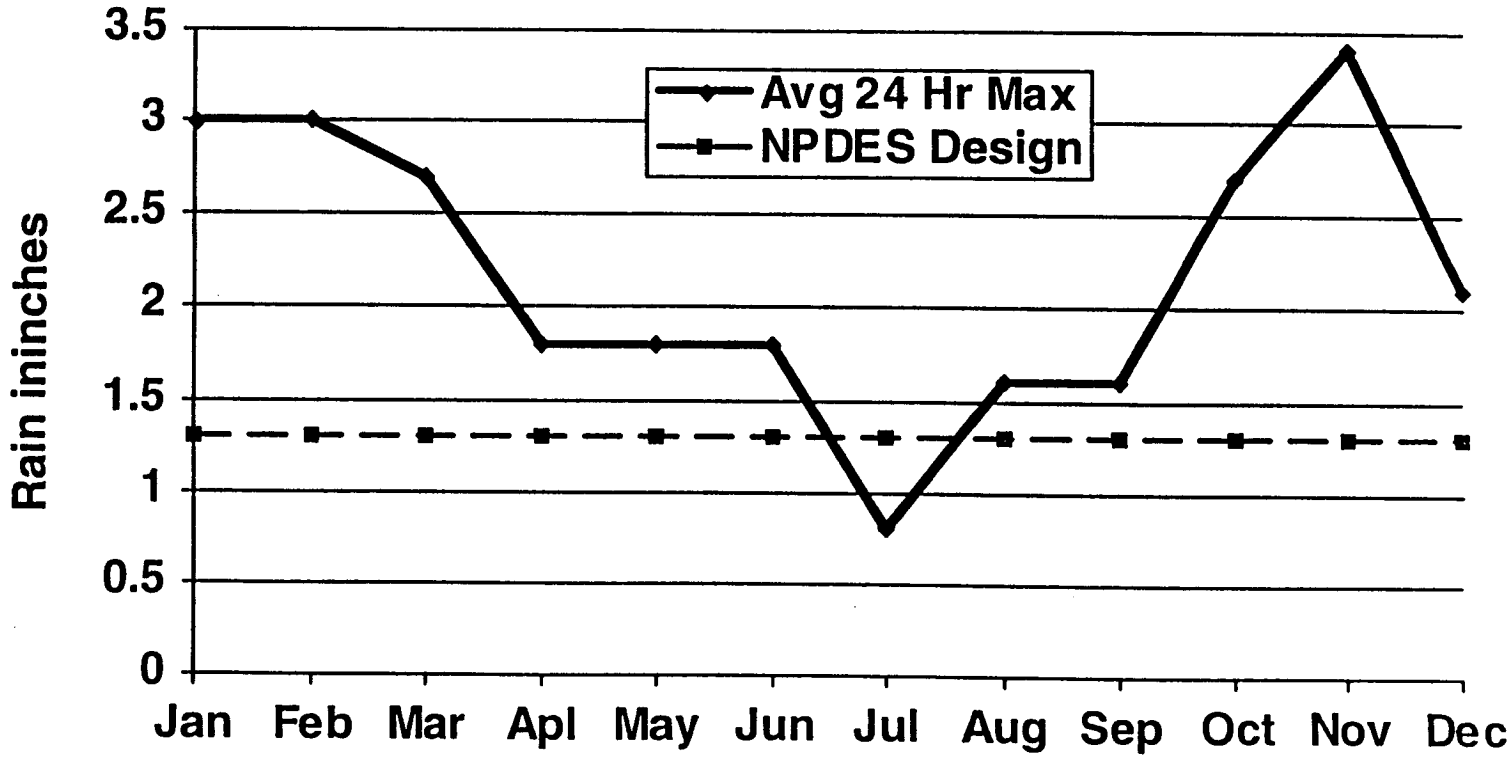
Washington DOE Lisa Zinner April/May 1997 Ross Simpson Weekend Headliner : Safe Skies, Safe Waters NBC News extra interview

Data Discrepancies too big to ignore

- Tracability to pollution test results lost
  - Outfall 010 has been changed to 015 (NPDES Response 62A)
  - SDN 002 (Outfall 7) was renumbered SDN 004 (Outfall 11) after a photograph of it spewing oil and grease was supplied to the DOE June 1997. NPDES denies change (NPDES Response 60C)
- NPDES Response to Comments uses 1.3 inches peak intensity of the six month , 24 hour storm event for the SDN-002 pump station design. Weather data indicates the annual average value for the 24 hour event is 3.4 inches.
- More ground traffic but less pollution with the Third Runway
- North Parking Lot aquifer pollution calculations used conductivities for till, even though tests indicate soils are more conductive than till
- Unsafe fecal and glycol levels in Des Moines Creek
- Evidence suggests water tables have already changed from the small amount of construction to date

AR 036735

Wetlands help absorb water and pollution
Compensate for containment designs that are inadequate



Sea-Tac's average max 24 hour rainfall FAR EXCEEDS the NPDES design limits 11 out of 12 months per year

(Federal Climate Complex Asheville for for Sea-Tac Airport (Lat 47 27N, Long 122 18W, elevation 450 ft), 1948 through 1990 compared to the NPDES Summary page 107)

AR 036736

----------INTERNATIONAL STATION METEOROLOGICAL CLIMATE SUMMARY----------

:STA 727930 | KSEA | SEATTLE-TAC WSCMO AP ^ ,WA,US
:LAT 47 27N :LONG 122 18W :ELEV 450(ft) 00137(m) :TYPE NOAA SMOS V3 08121994
37 - STATION CLIMATIC SUMMARY

POR: (HOURLY): 1948-1990

	TEMPERATURE (DEG F)					PRECIPITATION (INCHES) (^)							REL HUM		VAP	DEW	PR	WIND (KT	
	MEANS			EXTREME		PRECIP.				SNOWFALL (@)			PERCENT (LST)		PR IN.	PT. (F)	ALT FT.	PREVAIL	
	MAX	MIN	AVG	MAX	MIN	MEAN	MAX	MIN	24H MAX	MEAN	MAX	24H MAX	AM 07	PM 16	HG.		$	DIR	SPD
JAN	44	34	39	64	0	5.7	12.9	.6	3.0	5	57	20	83	76	.19	33	125	SSW	12
FEB	48	36	43	70	1	4.2	9.1	.6	3.0	2	13	7	83	69	.20	35	115	SSW	12
MAR	52	38	45	75	11	3.7	8.4	.6	2.7	1	18	6	84	63	.21	36	110	SSW	11
APR	57	41	49	85	29	2.4	4.2	.3	1.8	T	2	1	83	57	.24	39	95	SSW	10
MAY	64	46	55	93	28	1.7	4.8	.4	1.8	T	T	T	80	54	.29	44	80	SSW	9
JUN	69	51	61	96	38	1.4	3.8	.1	1.8	0	0	0	79	54	.34	48	70	SW	9
JUL	75	54	65	98	43	.8	2.4	T	.8	0	0	0	79	49	.38	51	60	SW	8
AUG	74	55	65	99	44	1.1	4.6	T	1.6	0	0	0	84	51	.40	53	65	SSW	8
SEP	69	51	60	98	35	1.9	5.9	T	1.6	0	0	0	87	57	.36	50	80	N	8
OCT	59	45	52	89	28	3.5	7.8	.3	2.7	T	2	2	88	68	.30	45	95	S	9
NOV	50	39	45	74	6	5.9	10.7	.7	3.4	1	18	8	85	76	.24	39	115	S	10
DEC	45	36	41	63	6	5.9	11.8	1.4	2.1	3	22	9	85	79	.20	35	125	S	10
ANN	59	44	52	99	0	38.4	55.1	23.7	3.4	13	61	20	83	63	.27	42	100	SSW	10
POR	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43

T = TRACE AMOUNTS (< .05 < .5 INCHES
# = MEAN NO. DAYS < .5 DAYS
$ = PRESSURE ALTITUDE IN TENS OF FEET (I.E. 50 = 500 FEET)
@ = NAVY STATIONS REPORT HAIL AS SNOWFALL; ALSO NWS FROM JULY,1948 - DEC.,1955
+ = THE PREDOMINANT SKY CONDITION
* = VISIBILITY IS NOT CONSIDERED
& = ANN TOTALS MAY NOT EQUAL SUM OF MONTHLY VALUES DUE TO ROUNDING
^ = 24 HR MAX PRECIP AND SNOWFALL ARE DAILY TOTALS (MID-NIGHT TO MID-NIGHT)
I = EXCESSIVE MISSING DATA - VALUE NOT COMPUTED
" = INCHES

----------FEDERAL CLIMATE COMPLEX ASHEVILLE----------

AR 036737

Construction and Hauling Appears to have Already Impacted the Water Table

- All Third Runway construction should be halted until engineering and economic feasibility is assessed
    - $1.2 million and 8 months to repair one lane of First Ave when it sank due to interactions of improperly graded slope and Miller Creek water level changes (possibly due to airport construction)
    - Retaining wall will have same problems as First Ave in order to avoid moving highway 509
    - Spring "popped out of nowhere" that initiated the Miller Creek Sediment problems that started Sept. 1997
    - Increased flooding and new bubbling up springs since 1% of the hauling completed
    - Unusual fluctuations in water level in Angle lake

AR 036738

Premature to Issue Permit or Certificate of Compliance

- **Additional data needed**
  - Results from the 1997 Agreed Order Groundwater Study
  - Hydrology study to assess impacts from construction to date
  - Threatened and Endangered species evaluation
  - Monitor particulates and health during hauling
  - Quantity, source and transportation methods for fill identified
  - Wetlands identified by survey instead of aerial photographs
  - Stormwater Manual update of design parameters
- **Current Pollution needs to be mitigated first**
  - Unsafe levels of human fecal coliform in creeks
  - Abandoned oil and septic tanks in buy-out area
  - Release of untreated glycols release directly into wetlands, creeks and Puget Sound via Midway Sewer outfall
  - Need NPDES permit AKART plan implemented successfully

AR 036739

It's Premature to issue Permits or Certificates of Compliance

- A GAO audit should be required to determine feasibility.
  - Abandoning the project when it runs out of money would preclude the completion of the mitigation (like the people still waiting after 20 years for noise insulation)
- Ongoing legal battles need to be resolved
  - NPDES Permit appeal
  - Sea-Tac Growth Management lawsuit
  - EIS Validity lawsuit
- Engineering Risk Assessment needed
  - Earthquake, Hydrology and Pollution studies need to be completed
  - Quantity, availability and transport of fill identified
  - Retaining wall design require moving Highway 509?
- Supplementary or new EIS needed

AR 036740

Buried Truth

Safety

Number bad weather months

Pollution

Vehicle emissions

Stop & Go Traffic

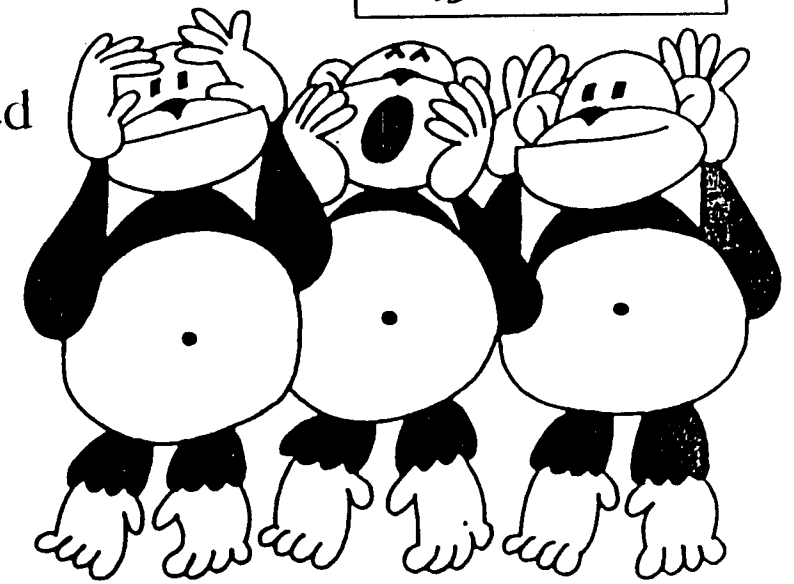
Water contamination speed

Rainfall

No of impacted Wetlands

Schedule Slides

Cost Overruns



AR 036741

Save our Water

Save our Wetlands

AR 036742

ACC	Airport Communities Coalition
AKART	All available, known reasonable methods
CASE	Citizens Against Sea-Tac Expansion
DEIS	Draft Environmental Impact Statement
DOE	Dept. of Ecology
FEIS	Final Environmental Impact Statement
EPA	Environmental Protection Agency
HOK	1996 Burien Study funded by WA
KC	King County
LDA	Localizer directional aid technology
GAO	Government Accounting Office
GPS	Global Positioning Satellite technology
NEPA	National Environmental Policy Act
NPIAS	National Plan for Integrated Airports System
PSAPCA	Puget Sound Air Pollution Control Agency
PSRC	Puget Sound Regional Council
Port	Port of Seattle
RCAA	Regional Commission on Airport Affairs
Sea-Tac	Seattle-Tacoma International Airport
SeaTac	SeaTac, city adjacent to Sea-Tac airport
SEIS	Supplemental Environmental Impact Statement
SEPA	State Environmental Protection Act
SIP	State Implementation Plan ... Air Quality
TAF	Terminal Air Forecast
WA	State of Washington

References in this presentation refer to A. Brown's 1997 SEIS comments that were also submited to the DOE and Corp of Engineer's as an attachment to a letter dated January 8, 1998 commenting on File Number 96-4-022325

AR 036743

Major Faults in the Puget Sound

An accompanying Fault Map of the Puget Sound shows the approximate locations of major faults in the Puget Sound of Western Washington (Gower and others, 1985, "Seismotectonic Map of the Puget Sound Region, Washington", USGS Map I-1613). Many of these faults are inferred indirectly from gravity and magnetic surveys. There is evidence of recent movement on some of these faults. For example, in about 900 AD an earthquake is believed to have occurred on the Seattle Fault which raised Restoration point about 21 feet and Alki point at least 12 feet. These points are located just south of the Seattle Fault on either side of the Puget sound.

The motion on many of these faults is vertical. For example, vertical motion on the Seattle Fault and faults just to the north have caused the block of earth between faults H and I on the map to drop a total of more than 12,000 feet in the last 40 million years. The resulting basin has, of course, been filled with sediments.

Large earthquakes could occur on any of these faults. However, the average time between large earthquakes on any of these faults may be hundreds or even thousands of years. A comparison of the fault map with locations of earthquakes that have occurred in the last few decades indicates that many recent earthquakes are occurring on faults other than the ones shown on the map. Thus, there are probably many other active faults besides the ones shown on the map. Some of these may also be capable of producing major earthquakes.

Note on the Seattle Fault:

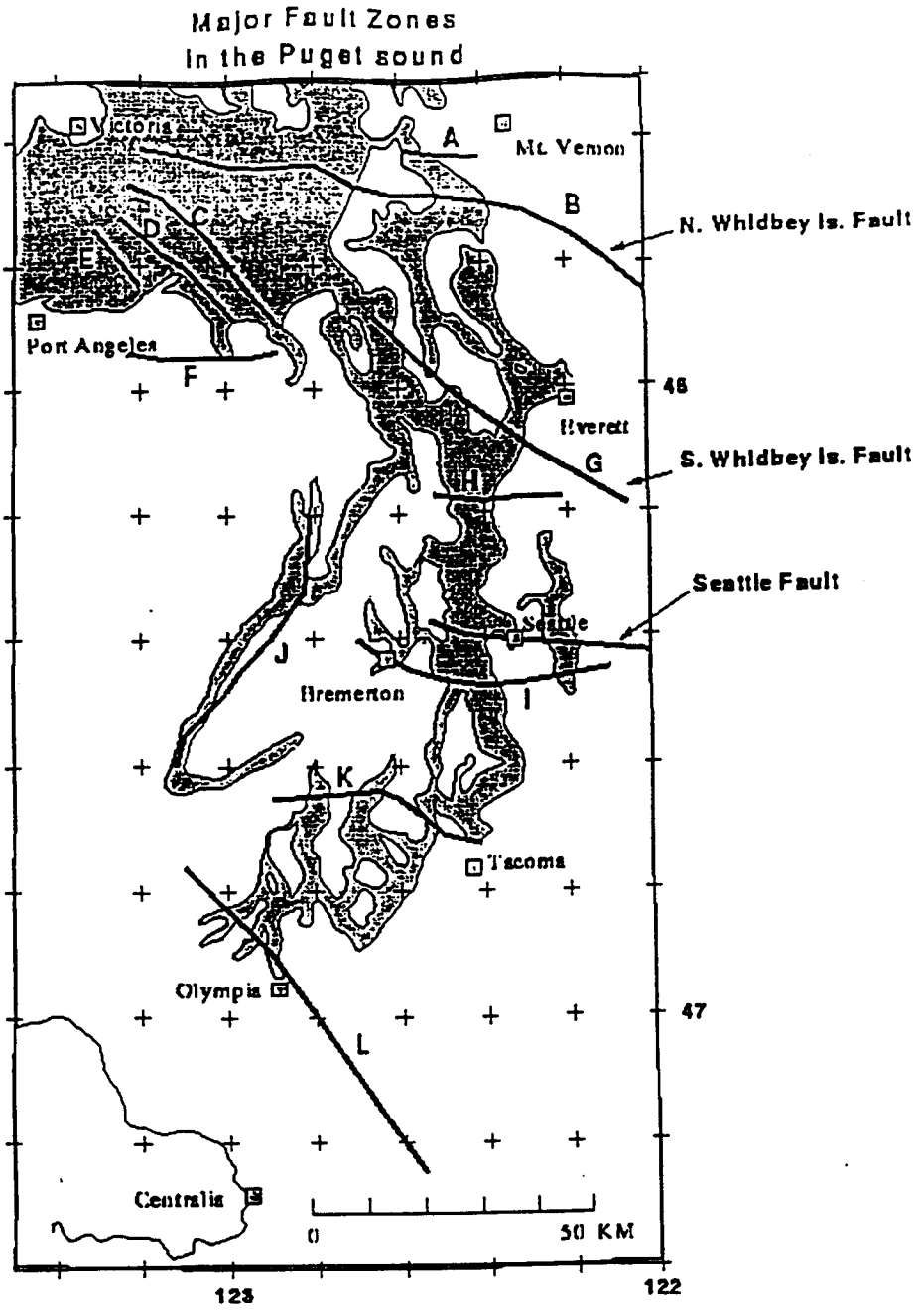
The faults labeled "Seattle Fault" and fault "I" on the map may be the same fault. Gravity surveys indicate that the "middle" of a major fault is located along line "I". Other geologic evidence indicates a major fault at the surface passing through Seattle and Bainbridge Island (labeled Seattle Fault). The Seattle Fault is probably not vertical but slants (gets deeper) to the south. Thus, the line labeled "I" is the average position of the deeper portion of the Seattle fault.

The recent magnitude 5.0 earthquake between Seattle and Tacoma on January 28, 1995 may have occurred on the Seattle fault. However, there are other possible interpretations.

Back to:... UW GEOPHYSICS PROGRAM ..... SEISMOLOGY INFO ..... PNW EARTHQUAKES

University of Washington Geophysics Program, Box 351650 Seattle, WA, 98195-3650
This is file /SEIS/PNSN/INFO_GENERAL/puget_faults.html; modified 10/11/96 - If you see any problems e-mail: seis_web@geophys.washington.edu

AR 036744


Major Fault Zones
In the Puget sound
Victoria
Mt. Vernon
Port Angeles
Everett
Seattle
Bremerton
Tacoma
Olympia
Centralia
A
B
C
D
E
F
G
H
I
J
K
L
N. Whidbey Is. Fault
S. Whidbey Is. Fault
Seattle Fault
48
47
123
122
0
50 KM

http://gldage.cr.usgs.gov/cgi-bin2/zipcode.cgi

The input zip-code is 98166.

ZIP CODE	98166		
LOCATION	47.4549 Lat.	-122.3495 Long.	
DISTANCE TO NEAREST GRID POINT	6.2511 kms		
NEAREST GRID POINT	47.5 Lat.	-122.3 Long.	

Probabilistic ground motion values, in %g, at this point are:

	10%PE in 50 yr	5%PE in 50 yr	2%PE in 50 yr
PGA	33.11	45.89	66.14
0.2 sec SA	72.32	110.12	142.26
0.3 sec SA	61.40	99.00	128.41
1.0 sec SA	21.50	31.49	49.10

- -

The input zip-code is 98148.

ZIP CODE	98148		
LOCATION	47.4332 Lat.	-122.3241 Long.	
DISTANCE TO NEAREST GRID POINT	4.1094 kms		
NEAREST GRID POINT	47.4 Lat.	-122.3 Long.	

Probabilistic ground motion values, in %g, at this point are:

	10%PE in 50 yr	5%PE in 50 yr	2%PE in 50 yr
PGA	31.29	40.85	55.39
0.2 sec SA	66.37	104.85	127.37
0.3 sec SA	59.73	91.77	122.03
1.0 sec SA	20.98	29.72	43.53

- -

The input zip-code is .
Zip code is zero and we go to the end and stop.

By George I think you've got it!

Do you know the Sea-Tac Third Runway 1996 facts?	Answers
Will the Third runway INCREASE capacity of the two existing dependent runways? (a) yes (b) no	(a) NO per EIS, more dependent taxing & air space
How much will it increase total airport departures ? (a) 3% (b) 5% (c) 12 % (d) 50%	(a) 3 % per DEIS* (b) 5% maximum per EIS (increase ARRIVALS by ONLY 12%, DEIS)
How many runways does the new Denver airport have ? (a) 2 (b) 3 (c) 6 (d) 12	First Phase 5, now 6, with 6 more in work, for total of 12
We will get less FAA funding, have higher costs, and about 1/3 the air capacity than the first phase of the new Denver airport. The Master Plan Update forecasts Sea-Tac enplanement fees to be : (a) about 1/2 of Denver's (b) at least 3 times Denver's	(a) Port projects < $11 , only about a $5 increase for a short, dependent part time runway compared to Denver's ~ $20 fee for 5 runways , $685M FAA funding & lower costs
Excluding mitigation costs, what will the return on investment be: (a) negative (b) < 1% (c) 2% (d) 8%	(b) < 1% per nationally known economist Dr. Lynn Michaelis (Congressional Testimony 3/96)
If all costs are considered, the return on investment will be: (a) negative (lose money !) (b) positive	(a) NEGATIVE ! See answers to the other questions
Does the Final Sea-Tac Airport Master Plan Update Environmental Impact Statement (EIS) admit to omissions and errors that are so significant they could impact the decision whether to build the Third runway ? (a) yes (b) no	(a) YES. e.g. noise model assumes cold climate homes but less than 10% meet this criteria per EIS so noise mitigation boundaries need to be greatly EXPANDED
How much MORE will it cost if the EIS errors and omissions are really mitigated and/or addressed ? (a) millions more (b) billions more	(a) millions if token amount (b) BILLIONS if Congress mandates mitigation like Atlanta. Either of these costs are in addition to the over 3 BILLION estimated by the Port and the EIS "small" costs such as hazardous site cleanups and excavation of on-site soft soil that have NOT been estimated yet but are also in MILLIONS or BILLIONS..
Does a town by I-5 want to build an airport on 50,000 acres? (a) yes (b) no	(a) YES Tenino by Olympia (compare 50,000 to Sea-Tac's 2,500 acres and Denver's 33,900 acres)
If we delay authorizing a new airport, do we risk losing significant FAA funding for it ? (a) yes (b) no	(a) YES Funding trends make it harder the longer we delay

How many of these answers did you really know ?

*DEIS: Draft Environmental Impact Statement

For more info. see Web site http://rcaanews.org/rcaa

2P-74

Dan Caldwell
19547 2nd Ave. S.
Des Moines, WA 98148-2109

RECEIVED
18 MAY 1998

May 8, 1998

Colonel James M. Rigsby
District Engineer
Seattle District, Corps of Engineers
P.O.Box C-3755
Seattle, Washington 98124-2255

Re: Wetlands, Third Runway Permit

Dear Colonel Rigsby
Last Wednesday the legal team from the RCAA reported to members of CASE and the RCAA that they had met with you that day. They indicated that you were concerned regarding possible alternatives to placing the third runway at Sea-Tac.

I am retired however I have become far more involved with this third runway fiasco then I had ever intended. Perhaps I could share some additional alternatives with you.

1 I have children living in Las Vegas therefore I am down there frequently. Last year McCarran airport in Las Vegas opened its' SECOND runway because the number of passengers was approaching 28 million. Sea-Tac already has two runways serving a claimed 26 million passengers. Alternative one appears to be NO RUNWAY. Improvements in staff productivity are needed.

2 The greatest air related loss of life in history happened when one 747 landed on a second 747 at Tenerife. Therefore the FAA is very sensitive regarding runway crossings. The idea of crossing TWO live runways has never made sense to me because the FAA imposed time restraints to cross two runways was greater then crossing only one and would delay flights rather then speed up flights. Especially since the third runway is short and 14 feet lower then the other two runways which greatly increases the human error potential. Two years ago while on a trip to Philadelphia, I arranged to visit the offices of all the Washington State Congressional members in Washington D.C. On this visit I discovered that the intent of the third runway was for air CARGO. The State Representatives in Congress all had models of FEDEX and other cargo carriers in their offices which had been given to them by Port lobbyists. The intent

3 of the third runway appears to be to take air freight business away from Boeing Field, Paine Field and other competing airports. Cargo carriers would not need to risk crossing runways as all cargo operations would remain on the westside of the airport with no need to cross runways. The third runway was in fact a completely independent new airport for cargo being pushed by developers using public money and the political clout of the Port of Seattle. As all the competing air cargo airports have excess capacity the need is not justified.

LETTERS TO ECOLOGY
(DECEMBER 19, 1997 TO APRIL 29, 1998)

DOE-L-1

NWRD

City of Des Moines

ADMINISTRATION
21630 11TH AVENUE SOUTH
DES MOINES, WASHINGTON 98198-6398
(206) 870-6500 FAX: (206) 870-6540

DEPARTMENT OF ECOLOGY
OLYMPIA, WA

98 FEB 23 AM 8:

February 12, 1998

Mr. Tom Fitzsimmons, Director
Washington State Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

Re: US Army Corps of Engineer Public Notice #96-4-02325, Port of Seattle

Dear Mr. Fitzsimmons:

1 It is my understanding that the comment period for the above referenced permit has been extended and that the Corps will be holding a public hearing. The City of Des Moines would appreciate it if you would re-examine this permit in light of the critical nature of the wetlands that are proposed to be filled in the Des Moines Creek and Miller Creek watersheds.

As you probably know, there has been a great deal of interest in the health of Des Moines Creek over the last 20 years. The existing fishery includes coho, chum, and pink salmon as well as steelhead and cutthroat trout in the lower portion of Des Moines Creek, and the strong possibility of re-establishing a usable fishery into the higher reaches of the creek. The City of Des Moines and the State of Washington are working diligently to replace the culvert underneath Marine View Drive with a bridge which would significantly aid in re-establishing fish habitat in the upstream portions.

In 1989 Metro coordinated a multi-jurisdictional effort to restore Des Moines Creek. The members included the State of Washington, Trout Unlimited, the Muckleshoot Indian Tribe, City of Des Moines, King County and other interested parties. The report documented the critical nature of the stream habitat and recommended numerous long range improvements. Most recently this habitat has been studied in the 1997 Des Moines Creek Basin Plan jointly sponsored by the City of Des Moines, King County, the Port of Seattle, and the City of SeaTac. This report again reiterated the critical nature of the habitat, the precarious health of the creek, and proposed low flow enhancements as well as other measures to restore water quality and fish habitat.

2 The above referenced permit would fill several acres of wetlands that are absolutely crucial to the continued health of Des Moines Creek. Des Moines Creek is at a critical juncture and further degradation or elimination of wetlands could throw the water quality

FROM :EDUCATION & INFORMATION TO :0P22562EP4256497D08 1998.02.23 05:09PM N139 P.02/02

2

and flow of the creek into an irretrievable decline. This problem is severely compounded by the applicant's plan to provide mitigation replacement wetlands over ten miles away in an entirely different watershed. These comments also apply equally to the proposed filling of nearby Miller Creek wetlands.

Given the absolutely critical nature of Des Moines Creek and its receiving waters, I urge you to reevaluate the Army Corps permit and take a strong position in opposition to filling wetlands that affect Des Moines and Miller creeks. To do otherwise would go against over 20 years of public and agency efforts to enhance this stream, its habitat and receiving waters. With current federal reviews of Puget Sound salmon runs, it is incumbent upon all agencies to take strong affirmative actions to preserve urban wetlands such as these that affect the health and vitality of streams flowing directly to Puget Sound.

Sincerely yours,

Robert L. Olander
City Manager

RO:sb

c: Des Moines City Council
Representative Adam Smith
Senator Julia Patterson
Senator Mike Heavey
Representative Karen Keiser
Representative Jim McCune
Councilmember Chris Vance, Metro-King County Council
Councilmember Pete von Reichbauer, Metro-King County Council
Councilmember Greg Nickels, Metro-King County Council
Mr. Rod Malcom, Fisheries Department, Muckleshoot Tribe
Mr. Philip Schneider, Habitat Biologist, Department of Fish and Wildlife
Mr. Jonathan Freedman, Army Corps of Engineers
Trout Unlimited
Sierra Club
Friends of the Earth
People for Puget Sound
Puget Soundkeeper Alliance
Washington Environmental Council
Rivers Council of Washington

CM:DMCREEK

FROM :EDUCATION & INFORMATION TO :8P2256888P4256A87988 1998.02-23 08:09PM #188 P.02/02

City of Des Moines

ADMINISTRATION
21630 11TH AVENUE SOUTH
DES MOINES, WASHINGTON 98198-6398
(206) 878-4595 FAX: (206) 870-6540

DOE-L-2

March 30, 1998

Mr. Tom Luster
Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

Re: US Army Corps of Engineers Public Notice #96-4-02325; Port of Seattle

Dear Mr. Luster:

Attached is a copy of a letter the City of Des Moines recently sent to the Washington Department of Fish and Wildlife urging opposition to destroying Des Moines and Miller Creek wetlands without replacement mitigation in the same drainage basins. It contains additional information and an attachment from EPA which I hope will convince you to add your comments in opposition to the Army Corps permit as currently proposed.

These are critical wetlands and habitat and it is possible to provide replacement within Des Moines and Miller Creek basins. Thank you for your consideration.

Sincerely yours,

Robert L. Olander
City Manager

RO:sb

Attachments (2)

City of Des Moines

ADMINISTRATION
21630 11TH AVENUE SOUTH
DES MOINES, WASHINGTON 98198-6398
(206) 878-4595 FAX: (206) 870-6540

March 30, 1998

Mr. Bob Everitt, Regional Director
Department of Fish and Wildlife
16018 Mill Creek Blvd.
Mill Creek, WA 98012

Re: US Army Corps of Engineers Public Notice #96-4-02325; Port of Seattle

Dear Mr. Everitt:

2 Thank you for your prompt response of March 13 regarding the proposed filling of wetlands in Des Moines and Miller Creeks. I am afraid I did not adequately convey the critical and urgent nature of this issue. I would like to reemphasize that Des Moines Creek is in an extremely marginal state, particularly during the summer months. Low flows, reduced oxygen levels, and higher temperatures are at critical levels and in urgent need of remediation. The new multi-jurisdictional basin plan provides for this remediation and enhancement. Needless to say, the wetlands provide essential storage, recharge, and filtering functions for the creek. Any degradation at all of these wetlands would most likely destroy Des Moines Creek as a fish habitat. The destruction of Des Moines Creek is absolutely untenable and not acceptable. It would undermine over 30 years of local, state and federal policy regarding the rehabilitation of this creek and its habitat. It would be directly counter to recent state and King County initiatives to be proactive in enhancing salmon habitat.

3 You mention FAA concerns over bird habitat being created through replacement wetlands in the Des Moines Creek basin. Frankly, this is a cover issue behind which the FAA attempts to hide frequently in order to justify filling wetlands. When the cover is removed, the reality is that this is merely a policy *preference* of the FAA. This policy preference does not override national, state and local laws and policies regarding preservation of wetlands and the mitigation of any wetland loss within that specific drainage basin. There are thousands of airports, new and old, around the country that coexist with nearby wetlands. Also please bear in mind that the wetlands in Des Moines and Miller Creeks have coexisted for decades with the airport and the preference of the FAA to remove them does *not* supersede national and state law and policy for wetland preservation.

The enclosed letter from the EPA to the Army Corps of Engineers clearly outlines that it is possible for replacement wetlands to coexist with nearby airports. It takes some dedication and work by the FAA and the airport to properly design replacement wetlands and manage bird habitat. But, it can be and has been done throughout the country and the world. Even to my uneducated eye there are simple things that can be done such as using netting or wiring similar to what is used at state fish hatcheries to discourage bird concentration in nearby wetlands. 4

I would urge in the strongest possible terms that it is absolutely critical to require the Port of Seattle and the FAA to develop replacement and management plans within the same drainage basins as Miller and Des Moines Creeks. This can be done safely if the agencies concerned genuinely want to make it work. It is my understanding that one of the major missions of the Department of Fish and Wildlife is to preserve wetlands and stream habitat in Washington. I would respectfully urge you to convey this position to the US Army Corps of Engineers before the April 9th deadline. Your support will help ensure that the Army Corps will require the FAA and the Port of Seattle to work with local jurisdictions to find, establish and manage replacement wetlands in the affected drainage basins. Please understand that the destruction of these wetlands without appropriate replacement in their respective drainage basins, could well doom Miller and Des Moines Creeks as viable habitat. This habitat must be preserved. 5

On a personal note, two days ago I saw that two mature bald eagles had returned to Des Moines Creek. For the last three years bald eagles have nested along Des Moines Creek just a few blocks from city hall. They usually spend the spring and most of the summer there. Des Moines Creek is a viable fish and wildlife habitat and we must not destroy the wetlands that play such an essential role in maintaining this critical resource.

Sincerely yours,

Robert L. Olander
City Manager

RO:sb

Enclosure

cc: Tom Luster, Department of Ecology
William Stelle, Regional Director, National Marine Fisheries
Tom Fitzsimmons, Director, State Department of Ecology
Bern Shanks, Director, State Department of Fish and Wildlife
Congressman Adam Smith
City Council

DOE-L-3

HIGHLINE WATER DISTRICT

Serving the Southwest Metropolitan Area since 1946

April 3, 1998

Department of Ecology
Permit Coordination Unit
P.O. Box 47703
Olympia, WA 98504-7703

Re: Port of Seattle Corp. of Engineers / Public Notice No. 96-4-02325

Dear Regulator:

The Highline Water District has concerns with the proposed elimination of 11.4 acres of wetlands. The District presently and in the future is depending upon ground water as a substantial source of potable water, which supplies our customers within our District.

1 The EIS indicated that the flows in both Des Moines Creek and Miller Creek would be increased with the elimination of the wetlands and other associated infiltration land areas. The reduction of infiltration of surface water will reduce the amount of aquifer recharge that will occur. This reduction in infiltration will negatively affect the amount of groundwater available for future use by the District and thus increase the costs for the District customers. Without the groundwater recharge; sources other than wells will have to be developed to provide water to the District customers.

2 The effects of the elimination of the wetlands upon the cost of future potable water have never been addressed by anyone. Why should the District customers be unfairly burdened with costs to develop new sources of water without compensation? By approval of the permit, will the Corp. of Engineers be willing to help pay for new alternative water sources?

We would appreciate a response as soon as possible.

Sincerely,

Keith A. Harris, P.E.
Manager, Planning/Construction

KAH:maf

23828 - 30th Ave. S. • P.O. Box 3867 • Kent, WA 98032 • 824-0375 / FAX: 824-0806

DOE-L-4

Southwest Suburban Sewer District

431 SOUTHWEST AMBAUM BOULEVARD
SEATTLE, WASHINGTON 98166
244-9575

COMMISSIONERS
Stanley J. Carey
John Jovanovich
William A. Tracy

GENERAL MANAGER
Steve Sandelius

April 9, 1998

Washington Department of Ecology, Permit and Coordination Unit
PO Box 47600
Olympia, WA 98504-7001

Attn: Tom R. Luster, Environmental Specialist

Re: Port of Seattle, proposal to fill 11.42 acres of wetlands

Dear Mr. Luster,

Southwest Suburban Sewer District has a number of concerns with the Port's proposal to fill wetlands in the vicinity of the proposed third runway.

We have a large interceptor (27" diameter) sanitary sewer line running north and south in the vicinity of Miller Creek which may be impacted by the proposal to fill wetlands on the west side of Seatac Airport. We have not seen any plans on the extent of the project and cannot be specific about the impacts and offer the following comments as potential impacts.

1. Construction Impacts - There is a high probability that our manholes will be in the area to be filled. This presents the opportunity for those manholes to be damaged by earth moving equipment. In the event that a manhole is damaged, fill material could fill our sanitary sewer line and cause an overflow of wastewater into the wetlands. We request a copy of the fill design so that any manholes in the fill area can be identified, marked and raised to minimize the potential for damage to our system.

2. Fill Impacts - The depth of our 27" interceptor vary between 7 feet & 35 feet. The depth of fill over our lines needs to be analyzed by our engineer to determine if the fill will have any impact on the integrity of our sewer lines. Again, a detailed fill design will help us analyze any potential impacts caused by the proposed fill.

3. Future Impacts - Sewer Lines need periodic and/or emergency maintenance to prevent wastewater overflows. There may be impacts on our ability to maintain our sewer line by filling the wetlands. In addition, our ability to replace or rehabilitate our interceptor at the end of it's useful life may be impacted, limiting the rehabilitation methods and consequently increasing the cost to District ratepayers.

We would appreciate an opportunity to review and comment on the plans and specifications and attend the preconstruction meeting for the fill project to minimize the damage to our sanitary sewer system and the environment. We will be having discussions with the port concerning financial and construction impacts, however, we have not yet discussed this specific project with them. Anything you can do to promote communications will be appreciated.

Although our primary focus is on impacts to our sewer lines, we also have concerns for Miller Creek and it's tributaries. Southwest Suburban Sewer District has been working closely with the Des Moines Chapter of Trout Unlimited for over 10 years in an attempt to restore the salmon runs in Miller Creek. We operate a salmon hatchery on our Miller Creek Treatment Plant site which produces approximately 250,000 salmon per year to be planted in community streams including Miller Creek. We believe that the Port needs to focus it's mitigation efforts and dollars in the drainage basin affected by the filling of the wetlands, the Miller Creek Basin. While the proposed wetlands in Auburn may be cheaper and a large single site, something needs to be done to help Miller Creek. As you know, there was been an injunction against King County, DOT and the Port to prevent them from adding any additional storm drainage to Miller Creek. This injunction was removed only after those agencies reached agreement with private property owners in the early 1970's. Those agreements should be honored regardless of changes at Seatac or additional mitigation provided to the Miller Creek Drainage Basin.

It is very difficult to identify specific impacts because we have not received a copy of the design and will gladly review and comment when the design is completed.

If you have any questions, please call Steve Sandelius at (206) 244-9575.

Sincerely,

Southwest Suburban Sewer District

Steve Sandelius,
General Manager

DOE-E-1

DEPARTMENT OF ECOLO
OLYMPIA, WA 98504

'97 FEB 26 A9:44

Christopher Vance
METROPOLITAN KING COUNTY COUNCIL
District Thirteen

February 22, 1998

Mr. Tom Fitzsimmons
Director, Washington State Department of Ecology
PO Box 47600
Olympia, WA98504-7600

Re: US Army Corps of Engineer Public Notice #96-4-02325, Port of Seattle

Dear Mr. Fitzsimmons:

I understand that the Corps will be holding a public hearing on the above referenced permit. Due to the critical nature of the wetlands that are proposed to be filled in the Des Moines Creek and Miller Creek watersheds, I would encourage you to re-examine this permit.

This permit would fill in several acres of wetlands that are crucial to the continued health of Des Moines Creek. The waterway includes habitat for coho, chum, and pink salmon as well as steelhead and cutthroat trout. It is also carrying the possibility of a restoring a usable fishery in the higher reaches of the creek.

King County has continually extended its hand to restore Des Moines Creek and the surrounding habitat. Along with the State of Washington, the Muckleshoot Indian Tribe, and the City of Des Moines we have sponsored numerous studies. Each report reiterates the critical nature of the area, the fragile health of the creek and the ability to restore fish populations.

Again, I strongly urge you to reevaluate the Army Corps permit and oppose their plan to fill in these vital wetlands. At a time when all of our natural resources are in danger, we cannot, in good faith, commit to their further destruction.

Sincerely,

Chris Vance
Councilmember, District 13

Room 1200, King County Courthouse, 516 Third Avenue, Seattle, WA 98104-3272
(206) 296-1013 TTY/TDD (206) 296-1024 FAX (206) 296-0198

Home address: 9615 S. 203rd St., Kent, WA 98031 Home phone: (206) 852-4020

STATE REPRESENTATIVE
33rd DISTRICT
KAREN KEISER

State of Washington
House of Representatives

DOE-E-2

1 cm

APPROPRIATIONS
EDUCATION
FINANCIAL INSTITUTIONS & INSURANCE

DEPARTMENT OF ECOLOGY
OLYMPIA, WA.

'97 MAR -4

March 2, 1998

Tom Fitzsimmons, Director
Department of Ecology
P.O. Box 47600
Lacey, WA 98504-7600

RE: U.S. Army Corps of Engineer Public Notice #96-4-02325 Port of Seattle

Dear Mr. Fitzsimmons:

I wanted to address the current controversy surrounding the mitigation of wetlands near Sea-Tac Airport. The construction of a third runway would eliminate 11 acres of wetlands in the community I represent.

The Federal Aviation Administration (FAA) and the Port of Seattle are currently promoting a ludicrous proposal to mitigate the port's destruction of our Highline-area watershed by purchasing $8 million of wetlands ***in Auburn*** — an entirely different watershed.

The FAA is asserting that any restoration work on the existing wetlands poses a public safety risk to jets because of the potential for the bird population to interfere with jets taking off at Sea-Tac. This is absurd logic. This same agency has never voiced a safety concern about the same exact wetlands which has existed next door to the airport for the past 40 years. If the existing wetlands are such a safety hazard then why hasn't the FAA commissioned a team of sharp-shooters to exterminate the birds years ago? The fact is this airport and these wetlands have coexisted without problems for decades. The wetlands were in place when the airport was originally sited. 1

The Highline community is not asking for a wildlife sanctuary for friends of the Audubon Society. The Highline community wants the responsible public agencies to utilize modest measures to keep our local streams clean and flowing. The function of a watershed is to purify the pollutants flowing in and out of our local streams. Removing these wetlands eliminates nature's ability to do this. It's that simple.

We have many potential projects to resolve this current dilemma. Purchasing land in Auburn is not one of them. The notion of "mitigation banking" is not embraced by the environmental community and for good reason. It does zero to improve the watershed being damaged by loss of local wetlands. It doesn't save the salmon in Des Moines and Miller creeks put at risk in the Highline water basin. The objective is to restore the watershed, not duplicate it on another planet. 2

LEGISLATIVE OFFICE: 321 JOHN L. O'BRIEN BUILDING, PO BOX 40600, OLYMPIA, WA 98504-0600 • (360) 786-7808
TOLL-FREE LEGISLATIVE HOTLINE: 1-800-562-6000 • TDD: 1-800-635-9993
RESIDENCE: (206) 839-8884

NEW TECHNOLOGY is another alternative.

Several major mergers in the airline industry were announced this week. Full aircraft and fewer flights produce more revenue then frequent flights with half filled aircraft.

4 Boeing has a tilt wing passenger aircraft under development which will make many commuter aircraft using Sea-Tac obsolete.

The proposed 300 passenger Boeing built SST is planned to be off the drawing boards and in the air by 2006 if orders are placed. The long runways at Spokane and Moses Lake are required for refueling. Sea-Tacs runways are too short and lack adequate safety margins.

5 Two years ago in a Times feature, Gerald Greenwald, CEO of United Airlines, the Ports' biggest air customer, expressed concern over the planned expansion and so forth.

I hope that my information is useful and will help you with your decision. I lived here when the SECOND runway was under construction. The rationale was almost a carbon copy of the third runway plans. The Port went belly up with that project also and severely damaged the infrastructure of south King County. The Schools have never recovered from that fiasco.

Dan Caldwell

Dan Caldwell
19547 Second Ave. South
Des Moines, Wa 98148
206 824-0736
FAX 206 824 2174

The port is required by law to fix the environment it is destroying. That doesn't mean the environment somewhere else. If you crash into my car, you're responsible for the damage to my car, not my neighbor's.

3 The fact is, efforts are currently underway to clean up the local streams in the Highline com- ..unity, and the port should help in this effort. The King County Watershed Forum is looking at ways to fund a catch-basin facility to better control the flows of our local waterways around the airport. Environmental scientists say such a facility is likely to improve our salmon populations tenfold. I believe the potential for this idea at a cost of $2 million is not only cheaper, but smarter.

Sincerely,

Karen Keiser
State Representative
33rd District

cc: Mike Rundlett, Regional Director

KLK:se

Points to Discuss on the Proposed Army Corps of Engineers Section 404 Permit Allowing the Port of Seattle to Destroy Wetlands

4 | ● The Port of Seattle would like to destroy existing wetlands in Des Moines and "replace" them with new wetlands in Auburn. Does that make sense to you? Absolutely not. As a matter of fact, it doesn't make sense to the Army Corps of Engineers, either, because their policy states that on-site and same watershed mitigation are the preferred courses of action.

● The Port of Seattle's Section 404 permit application proposes to allow the Port of Seattle to fill 11.42 acres of wetlands as part of the third runway fill dirt. The Army Corps should not grant this permit for the following reasons:

5 | ■ The Port has not given consideration to alternative designs which could avoid damage to wetlands and streams;

6 | ■ The Port has not proposed a satisfactory plan to replace the wetlands it propose to destroy;

7 | ■ Destruction of these wetlands would cause or contribute to a significant degradation of water quality and aquatic resources in the area; and

8 | ■ Destruction of these wetlands is contrary to local regulations and the interest of the surrounding communities.

Alternative Designs Could Avoid or Minimize Damage

● The Corps my not issue a Section 404 permit if there are design options that would cause less damage to wetlands and streams. But the Port has not examined or presented design options which could save wetlands.

9 | ● The Port could construct a shorter runway which would meet its stated objectives and destroy fewer wetlands, but it clearly prefers to construct the longest runway possible without considering the effect on surrounding communities.

Unsatisfactory plan to Replace Lost Wetlands

10 | ● There are a number of wetlands within the Des Moines Creek and Miller Creek watersheds that could benefit from enhancement and restoration. The Port has not provided a good explanation of why these locations in the watershed cannot be used to replace lost wetlands.

11 | ● The Port is hiding behind FAA regulations when it claims that on-site mitigation will create hazards to aircraft by attracting birds. Existing wetlands are within the area that the Port claims is too close to runways. Replacing wetlands in the same general area is unlikely to attract more birds.

12 | ● Replacing wetlands in the watershed is critical in this case where the watershed already is suffering from wetlands lost over the past twenty to fifty years. Wetlands have been termed "Nature's Kidney."

3/20/02 2:10 PM

Our remaining kidney should not be given to Auburn.

13 ● The Port's proposed wetlands construction project in the City of Auburn is doomed. Wetlands construction is an inexact science with a low success rate. The number of replacement acres (21 acres) proposed is not enough to make up for the likelihood that the project will fail.

● Even if the project were technically sound, the port is not serious about the Auburn wetlands. The Port intends to give the neighboring land to the City of Auburn with no restrictions to control the use of the land or to maintain the water supply to the wetlands once they are established.

Degradation of Water Quality and Aquatic Resources

14 ● The Port admitted in the EIS that filling wetlands will mean more sediment, deicing chemicals, and heavy metals will reach Miller and Des Moines Creeks. It admitted that these substances will harm aquatic life in these streams and will violate state water quality standards. The Corps may not issue a permit and the Washington Department of Ecology may not certify a project in these circumstances.

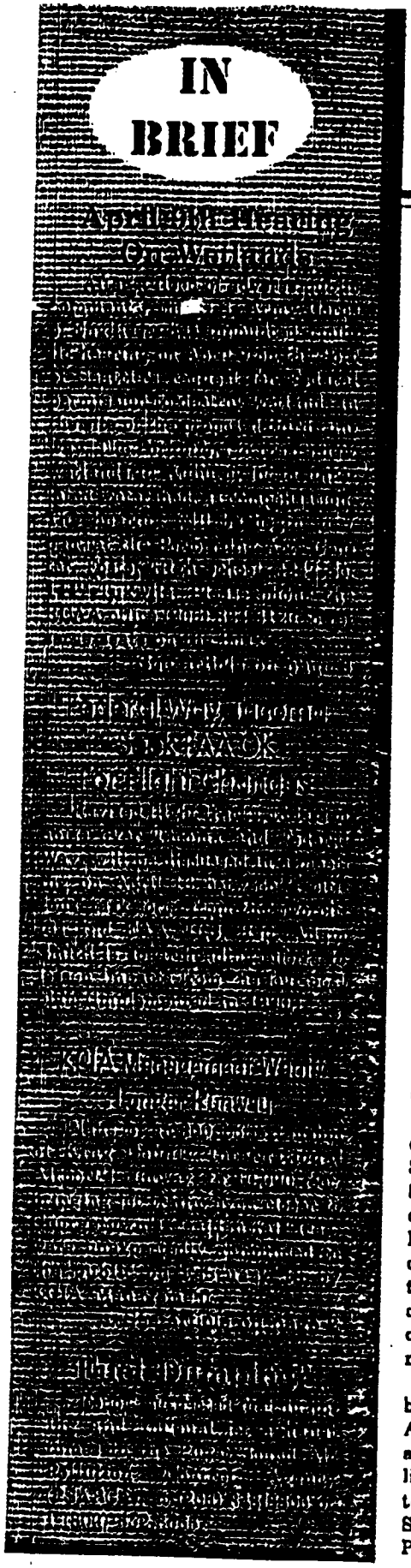
15 ● The Port also wants to relocate completely as portion of Miller Creek. Like wetlands construction, construction of a naturally functioning stream bed is an inexact art. During construction, water quality in this stream will suffer. How long those impacts will last is difficult to predict.

Contrary to Local Regulations and the Public Interest

16 ● The Corp's regulations do not allow it to issue a permit for activities that do not receive state and local authorization. The communities surrounding the airport have enacted ordinances that require wetlands to be replaced in the same water shed. The Port's disregard for these regulations alone is sufficient to deny this permit.

17 ● In October, Vice President Gore announced the Administration's Clean Water Initiative. The initiative goes beyond the former policy of "not net loss" of wetlands. The Initiative's goal is a net increase of 100,000 acres of wetlands by 2005. This permit is completely contrary to that goal, to the Corps regulations, EPA's guidelines, to the environmental health of the area and to local regulations and local sentiment. The permit should NOT be issued.

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 8
To JANIS T	From TOM LOSTER
Co. THOMPSON	Co.
Dept. NWRO	Phone #
Fax #	Fax #



Truth in Aviation

The Newsletter of the Regional Co... on Airport Affair

Vol. 5, No. ... Spring 1998

AIRPORT EXPANSION PROGRAM TOO BIG FOR PORT STAFF TO HANDLE

Ambitious expansion projects at Sea-Tac Airport are starting to unravel, thanks to massive underestimates of costs and over-growing scheduling problems. Trouble came to light on January 13, when a revised cost estimate for the new parking gargage was released to the Port Commission, showing a 24 percent increase from a $52.8 million estimate published only 11 months earlier. Undaunted, the Commission voted, 3-1, Jack Block dissenting, to plunge forward. Commissioner Gary Grant was asked, how much more will the price tag for other expansion projects increase in the next eight years? Grant replied, "That's a legitimate question, and one we'll be asking as well".

On January 23, a memorandum to the Commission reported that the complexity of managing all the 100-plus airport expansion projects was beyond the capability of Port staff. Gina Marie Lindsey, Director of the Aviation Division, and Michael Feldman (who now holds the title of Director of Aviation Professional & Technical Services) suggested a slow-down of projects, new controls over capital outlays, and hiring more consultants to do such work as detailed engineering scheduling, design review, and contract administration. Lindsey and Feldman reported that the Port does not even have enough office space for all the needed staff.

In response, the Commission voted on February 24 to accept the staff proposal to seek consultants for a multi-year contract for program and construction management services for the expansion projects, at a cost of $10.5 million for 1998 alone. During discussion, Mr Feldman commented that the present schedule for completion on various projects would require a tripling or quadrupling of the Port's normal rates of capital expenditure. He added, " ... v there is urgency, certainly, to get on w... the improvement program, we want to do it right, we are not interested in doing it fast." His conclusion: "Our current resources, and our delivery system, really are not adequate to deliver a program of this magnitude."

Continued on page 6

Port Changes Course, Supports Highline Schools Noise Study

Abandoning hope of favorable outcome in negotiations with the Port of Seattle, on February 12 the Highline School District announced an independent study of airport-related noise pollution in the District's schools, and the costs of solving classroom learning interference. The Highline school board has committed $330,000 to the project, half of which comes from a grant by Governor Locke from his discretionary funds.

Announcement of the study was first belittled by the Port, but on March 4, Aviation Director Gina Marie Lindsey announced, "There is no cap at $50 million" on the Port's potential contribution to noise remedies in the Highline Schools. She also retreated from the Port's refusal to consider paying for air conditioning in schools. Highline School Superintendent Joe McGeehan warmly welcomed Lindsey's change of position.

In Spring 1997, the District had proposed to the Port that the two agencies jointly sponsor pilot studies of the noise problem. The negotiations failed: The Port would not commit to any assistance to the District unless the District accepted the third runway without further mitigation. While the Port public-relations machine claimed that the Port had offered $50 million to deal with the problem, in fact, as of February 12, the Port had never made any written offer of cash assistance, in any amount, according to Highline board member Shay Shual-Berke, M.D., and the District's attorney, David Hokit.

The district plan has several st... First, an opinion survey of residents in the district, followed by direct communication with the residents in public meetings (two were held on March 4 and

Continued on page 5

AR 036764

LET SEA-TAC PAVE OVER WETLANDS, CREEKS? ARMY ENGINEERS' HEARING SET FOR APRIL 9

After a flood of adverse public comments, the U.S. Army Corps of Engineers has announced a public hearing on April 9 on the Port of Seattle's for Federal permission to destroy wetlands in the site of the proposed third runway. The Port proposes to create new wetlands in Auburn, in an unrelated watershed, as "compensatory wetland". Critics argue that the environmental ordinances of neighboring cities, and State and federal law all forbid such substitution. Residents of Burien, Des Moines, Normandy Park, and SeaTac have protested vigorously about the Airport's plans to cover several acres of the Miller Creek and Des Moines Creek watersheds with fill, and to channelize significant parts of the creeks.

Permits for this activity are also required from the Department of Ecology, which is co-sponsoring the hearing. Written comments on the proposal may be submitted to the two agencies. They are due at the Army Engineers by Sunday, 19 April, and at Ecology by Wednesday, 29 April. Call RCAA or check our website for addresses.

This hearing pertains to permits for construction activity, not ongoing industrial activity, which are governed by the Airport's National Pollution Discharge Elimination System (NPDES) permits. The Port of Seattle claims that the FAA requires that the wetlands be destroyed in order to prevent bird-aircraft collisions. The FAA is silent on the subject. Critics ask, "What birds?" The City of Auburn was originally unsympathetic to the deal, but the Port then offered to give the city some 20 acres of land that Auburn could use for stormwater detention, to deal with an existing flooding problem in the area. The Port also committed to paying Auburn a portion of the city's costs for future new streets and utilities in the vicinity. It has offered no compensation to the communities damaged by the filled wetlands.

Take Free Bus to Hearing!

The hearing will be begin at 7 p.m. at the Performing Arts Center, Foster High School, 4242 So. 144th Tukwila. RCAA and C.A.S.E. will provide bus service to the hearing from the parking lots of Burien City Hall (415 S.W. 150th) and the RCAA office (19900 4th S.W., Normandy Park). Busses will leave both locations at 6.30 p.m. Please phone the RCAA office (206) 824-3120 to reserve seats on the bus.

PORT LAWYERS GO AFTER ANOTHER 'RENEGADE' CITY

Now it's Burien's turn to have its comprehensive plan savaged by the Port of Seattle before the Central Puget Sound Growth Management Hearings Board. Last year, the Port attacked the Des Moines plan for having the audacity to oppose expansion of Sea-Tac Airport and to set a city noise limit (55 LDN). According to the Port's lawyers, any expression of concern about the impacts of Sea-Tac expansion brand a city as a 'renegade' needing harsh discipline.

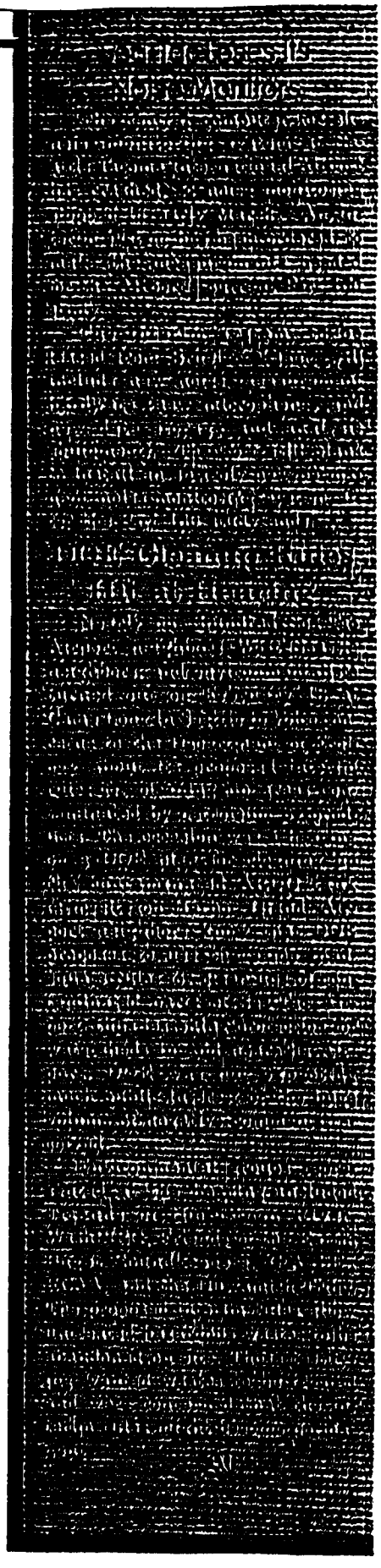
Such claims are raised in a Port petition dated January 2, asking that Burien's new comprehensive plan be found in violation of the Growth Management Act and that the City be ordered to rewrite it to Port specifications.

Turn-About's Fair Play! ACC Cities Challenge City of SeaTac's Comprehensive Plan

The legal war over municipal comprehensive plans took another twist on February 11, when the cities of Burien, Des Moines, Normandy Park, and Tukwila filed a legal challenge to the City of SeaTac's comprehensive plan.

The cities charge that SeaTac's comprehensive plan conflicts with the previously-adopted plans of those ACC cities, in violation of the Growth Management Act.

SeaTac made major amendments to its plan last Fall in order to bring it into compliance with an interlocal agreement between that city and the Port of Seattle adopted last summer, to accomodate third-runway construction.



RCAA Needs You! Your Contributions are vital.

NAME: (Please Print): _____

ADDRESS: _____

CITY: _____

Home Phone: _____

Work Phone: _____

E-mail: _____

Please send me_____ "No Third Runway" Bumper Strips. (No contribution required.)

I want to contribute $ _____, Please phone me about volunteering.

Continued from page 1

5.) Third, the District will obtain up-to-date scientific measurements of the noise in classrooms, to identify the structures affected, and the degree of the remedies needed. Students will participate in the measurements through a program called SoundNet. A detailed architectural and engineering study will determine the true costs of the work needed. The last step is to identify all who share responsibility for the pollution problem to agree, once and for all, on a fair and speedy solution. At each stage, the District will report to district residents in public meetings.

National Expert Retained

The School Board has retained Dr. Sanford Fidell, of BBN Technologies, as its noise expert. Dr. Fidell is an internationally recognized authority. Dr. Fidell's analysis and testimony during hearings before the Puget Sound Regional Council Expert Arbiration Panel were key to the Panel's decision in 1996 that the Port of Seattle had not met a major precondition of third-runway approval by PSRC—a demonstrated significant reduction of Airport noise.

The Port and the District have been at odds about noise mitigation ever since the second runway opened for business, bringing new noise over many of the District's buildings (mostly constructed during the 'baby boom' of the 40s and 50s). School officials note that the buildings were built without air-conditioning (HVAC systems). Insulating such buildings and adding double-paned windows will increase interior temperatures in warm weather—but with new HVAC systems the only way to cool the buildings is opening the doors and windows, which defeats the whole purpose of noise insulation. Until March 4, the Port had consistently refused to consider contributing toward new ventilating systems.

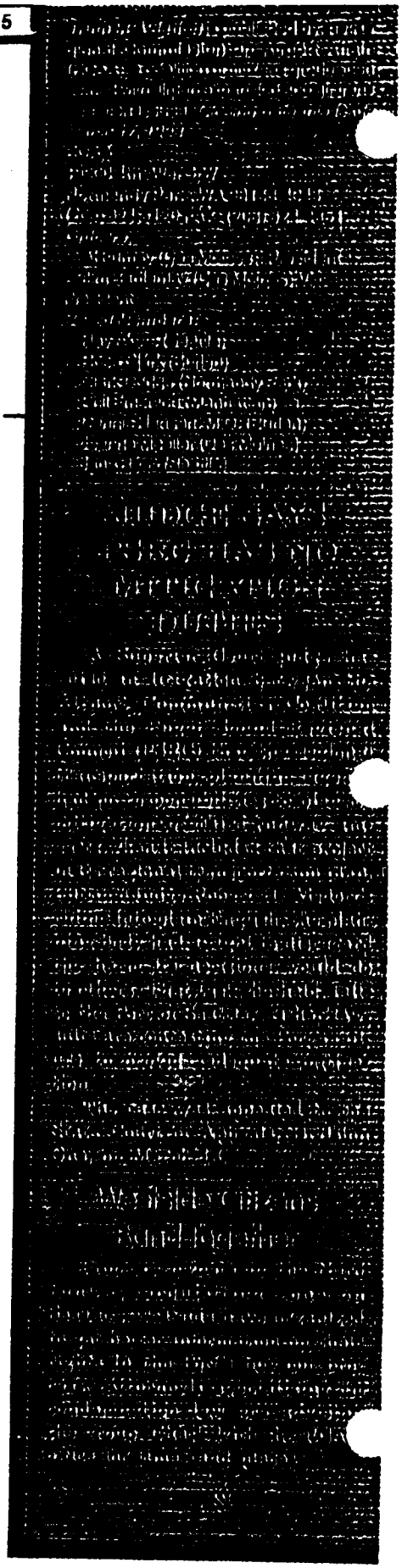
Superintendent Joe McGeehan and other school officials point out that if they undertake insulation work, today's building code may require major changes in buildings built in the 60s and before, and newly-recognized hazards, such as asbestos, must be dealt with. The Port agrees it should help pay for such problems.

In a press conference held immediately after the School District's announcement of its program, Port officials claimed that no new studies were needed, that all noise impacts were fully understood, and that they had offered to cover all expenses except "capital improvements". Observers note that the Port's alleged offer has not been made public. At the District's public meeting on March 4, Airport Director Gina Marie Lindsey did not commit the Port to accepting responsibility for dealing with unknown factors like possible asbestos but did agree to consider new ventilation systems.

One recent study from Cornell University confirmed that students in schools with chronic noise problems, such as near airports, don't read as well as those in quiet schools because they tune out speech in the noisy environment. Another study by Cornell released March 4 is discussed below.

Jet Noise Hurts Kids, New Cornell Study Shows

The constant roar from jet aircraft can seriously affect the health and psycological well-being of children, according to a new Cornell University study. The health problems resulting from chronic airport noise, including higher blood pressure and boosted levels of stress hormaones, the researchers say, may have lifelong effects.



AR 036766

April 16, 1998

DOE-E-3

Washington State Department of Ecology
Permit and Coordination Unit
P.O. Box 47600
Olympia, Washington 98504-7001

Attn: Tom R. Luster, Environmental Specialist:

Comments made at the April 9, 1998 joint public hearing U.S. Army Corp of Engineers and Washington State Department of Ecology

"Impacts to Streams" pg. 14

It clearly states that increases in (TSS) Total Suspended Solids from erosion and sedimentation will occur. I direct your attention to a picture of the North Employee Parking Lot which shows tremendous amounts of erosion and sedimentation flowing From that area which eventually impacted Miller Creek. Also a picture of Lake Reba Detention Facility due to heavy siltation build up from lack and inadequate erosion and sediment control system during the construction on the North Employee Parking Lot as a result Lake Reba Detention Facility is inoperative today.

It also states that (TSS) increases will be short term this disaster happened in September and October and Lake Reba Detention Facility is inoperative today. Is that a definition of short term?

As you know the fines for these violations end up in the State's General Fund. Normandy Park has received no money for restoration or damages. The money should be given to the effected jurisdiction to be used towards education or restoration within that watershed.

It also states that there will be other impacts to the streams and wetlands in this Central Puget Sound Watershed. As a member of the Central Puget Sound Watershed Forum we will be submitting projects from this watershed for funding. Will our watershed projects Be given lower priority ratings because of the stated construction impacts in this watershed? or will the funding occur and the watershed projects completed just to have the dollars wash into Puget Sound.

The permit needs to be denied based on the following:

1. The North Employee Parking Lot construction fiasco (an ambitious project that ends as a ridiculous failure) is a warning sign of things to come.

2. The ESA has not been addressed

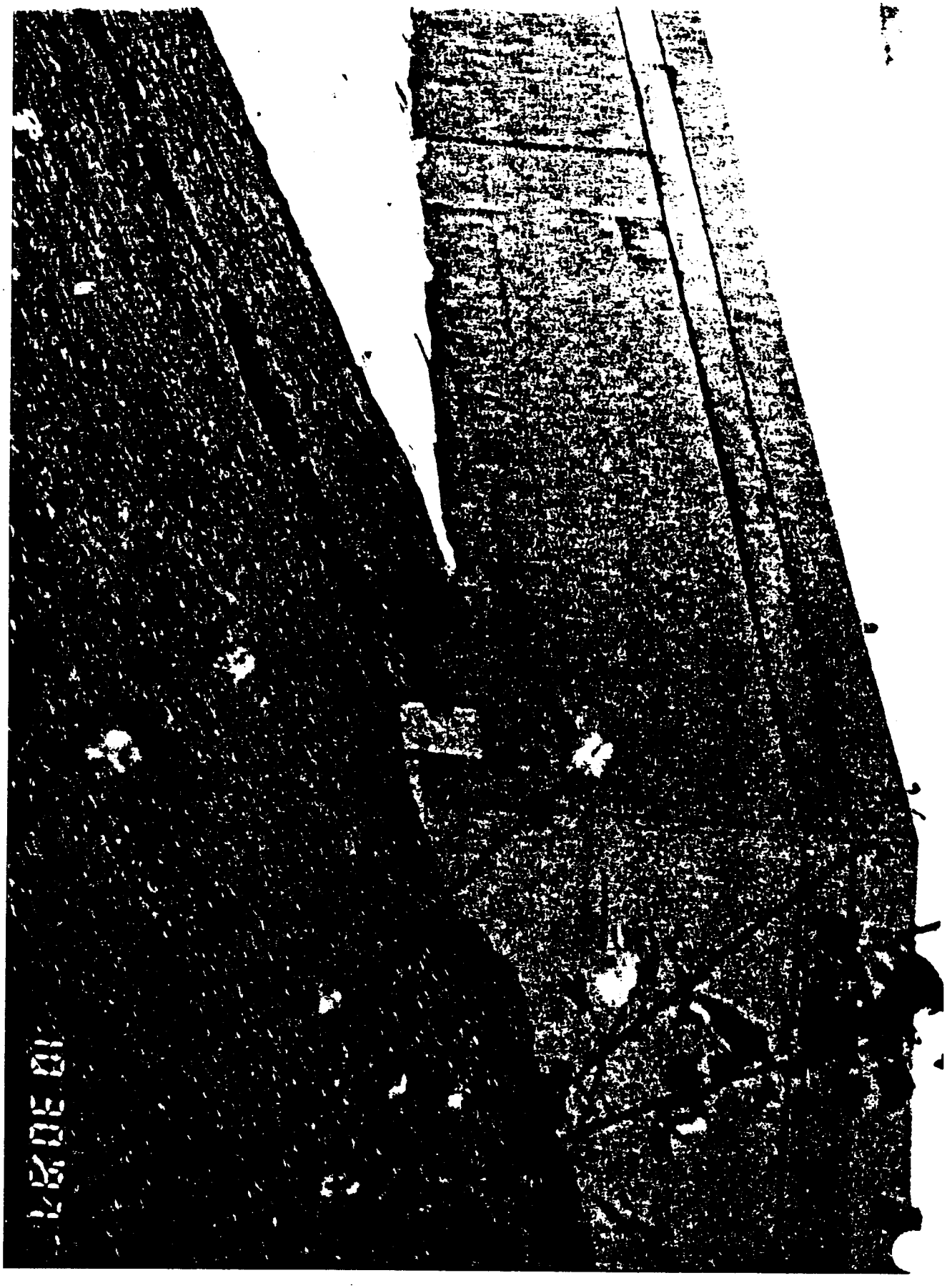
3. The effected Jurisdictions receive no help for education or restoration for damages.

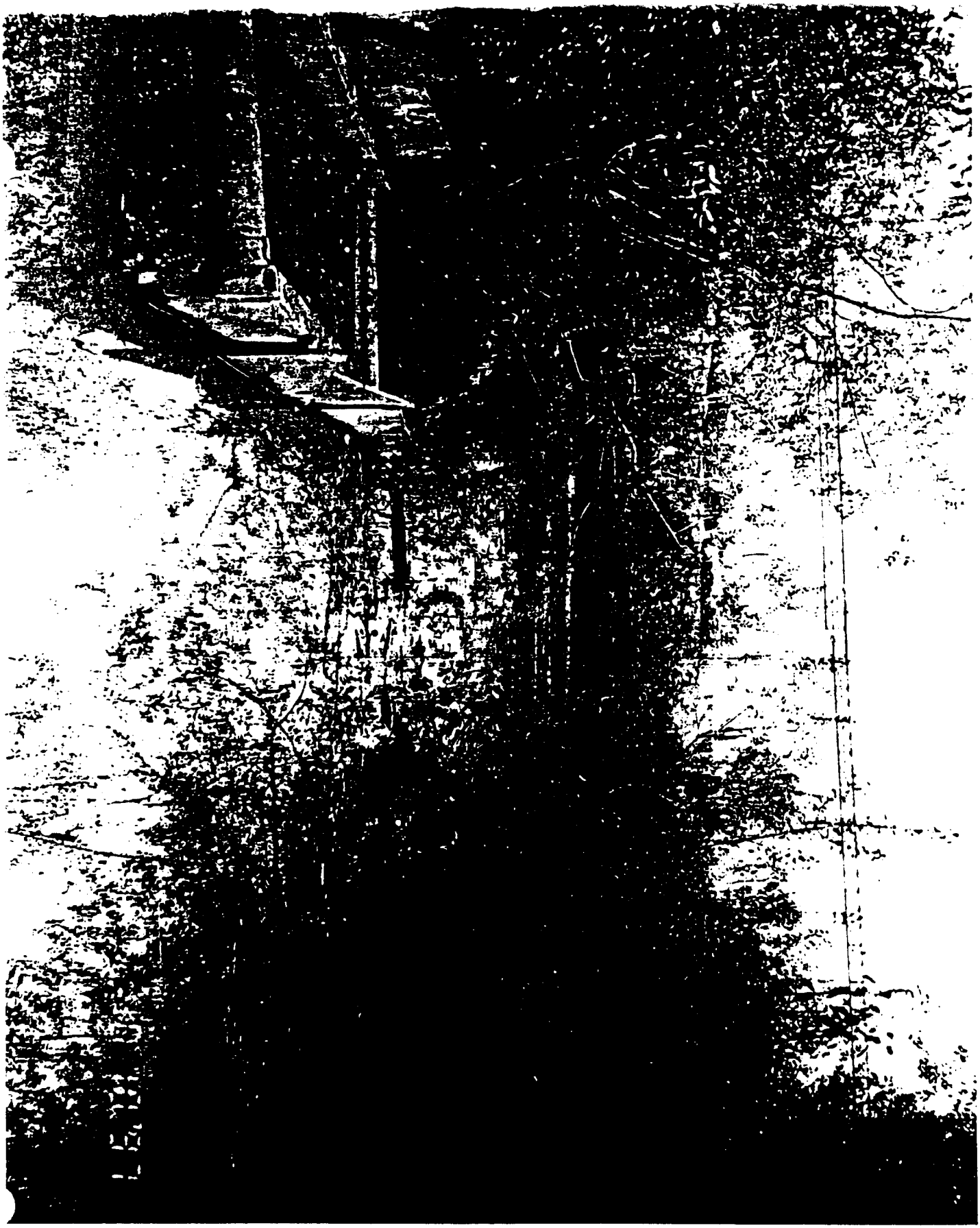
4. The fact that Central Puget Sound Watershed projects low priority ratings will cripple this watershed's ability to compete for funding with other watersheds.

Sincerely,

Kathleen Quong-Vermeire
Normandy Park Councilmember
20209-2nd Ave. S.W.
Normandy Park, Wa. 98166-4255
(202) 878-8000

cc: Jonathan Freedman, Project Manager U.S. Army Corps of Engineers





AR 036771

April 16, 1998

Washington State Department of Ecology
Permit and Coordination Unit
P.O. Box 47600
Olympia, Washington 98504-7001

Attn: Tom R. Luster, Environmental Specialist:

Comments made at the April 9, 1998 joint public hearing U.S. Army Corp of Engineers and Washington State Department of Ecology

As a Highline Water Commissioner I ask that you deny the permit based on the following concerns and unanswered questions.

Highline Water District service area includes parts of seven cities SeaTac, Burien, Des Moines, Federal Way, Kent, Normandy Park, Tukwila, including parts of King County and Port of Seattle.

In the city of SeaTac a manual intertie with the Highline Water District at the south end of the Airport provides a backup source of supply in the event of interruption in the Seattle water supply.

Is there a backup plan when the Highline Water District system becomes contaminated?

The District has water rights to 17.5 million gallons per day(MGD) of gound water within the Highline area.

What steps will be taken by the Port of Seattle to mitigate the contamination of the ground water?

What steps will be taken by the Port of Seattle to mitigate the loss of ground water recharge to the aquifers now being used and those that will be used in the future?

Removal of this natural groundwater from this area may require that an alternate new source of water be purchased by the Highline Water District. The capital cost to obtain a new water source is estimated at $4 million per one MGD of water based on 1995 dollars.

The proposed mitigation for loss of wetlands (construct new wetlands outside of the area) does not reduce the impact on water purveyors within the SeaTac area.

The Highline Water District has had many unanswered concerns and questions that need to be addressed.

Sincerely,

Kathleen Quong-Vermeire
Highline Water Commissioner
20209-2nd Ave. S.W.
Normandy Park, Wa. 98166-4255

cc: Jonathan Freedman, Project Manager U.S. Army Corps of Engineers

DOE-G-1

RCAA
Regional Commission on Airport Affairs
19900 4th Ave SW
Normandy Park, WA 98166
(206) 824-3120
FAX (206) 824-3451

Certified No. 163 756 491
Return Receipt Requested

January 19, 1998

Permit Coordination Unit
Department of Ecology
P.O. Box 47703
Olympia, WA 98504-7703

Dear Permit Coordinator:

1 This letter is written in response to a public notice of application for a Water Quality Certification dated December 19, 1997. The proposed permit application includes a "Notice of Availability for Water Quality Certification". (p.38) The proposed issuance of such a certification is premature, in error, and illegal. The proposed permit fails to recognize concurrent actions related to Water Quality certification including citizen comments related to the proposed Agreed Order between the Port and DOE. These comment should be incorporated and harmonized in the issuance of Water Quality Certification by DOE.

2 The proposed issuance of such a water quality certification is also in error because it has not contemplated public comments submitted concerning the related Section 404 permit which is currently under review by the Army Corps of Engineers. I have enclosed a copy of the comments submitted by our organization which show that the proposed issuance of a Section 404 permit related to this permit application would be in error and illegal.

RCAA hereby incorporates be reference comments concerning the proposed Water Quality Certification submitted by the Cities of Burien, Des Moines, and Normandy Park as well as the Airport Communities Coalition. Thank you for your attention.

Sincerely,

Allan M. Furney
President
Regional Commission on Airport Affairs

Enclosure

RCAA
Regional Commission on Airport Affairs
19900 4th Ave SW
Normandy Park, WA 98166
(206) 824-3120
FAX (206) 824-3451

CERTIFIED NO. P163 756 490
RETURN RECEIPT REQUESTED

January 18, 1998

U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-2255

Reference: 96-4-02325
Port of Seattle

Attention: Jonathan Freedman, Project Manager

Dear Mr. Freedman:

The Regional Commission on Airport Affairs ("RCAA") is a non-profit organization concerned with regional transportation issues affecting Puget Sound area residents. RCAA's mission statement includes the goals of finding sound, environmentally sensible solutions to our region's growing transportation needs.

The following comments concern the recent public notice of application of permit related to watersheds and wetlands located in the Miller Creek and Des Moines Creek basin (Reference No. 96-4-02325) issued December 19, 1997 by the U.S. Army Corps of Engineers (the "Corps"). The permit application concerns proposed actions related to the facilities operation by the Port of Seattle ("POS" or the "Port") at Seattle-Tacoma ("SeaTac") Airport.

REQUEST FOR EXTENSION OF PUBLIC COMMENT PERIOD

The permit notice was apparently timed for release during a period intended to minimize the distribution of information to the general public and elicit informed public comment on the provisions of the proposed permit. With no apparent consultation with local cities, community organizations or citizens in local communities the Corps established a permit public notice date of December 19. The Corps subsequently failed to immediately mail these notices to members of the public. Public notices began arriving in the mailboxes of local residents on December 23 and 24, arriving on Hanukkah (December 24), and one to two days before Christmas (December 25). Many members of the public are involved with vacations, travelling, and family activities during this time of the year. Further, this 30 day period for public comment is punctuated by yet two (2) additional public holidays, namely New Years (January 1) and a National holiday (Martin Luther King - January 19).

As an initial matter, it is reprehensible for an agency of the federal government to carry out its duties in manner undertaken during the issuance of this draft permit. While it is tolerated for lawyers to file legal papers upon opposing counsel at 5:00 PM on Friday immediately preceding a legal holiday, so as to deny opposing counsel sufficient time to respond, it is clearly not defensible or acceptable for a federal agency to engage in such behavior.

One of the express duties of the Corps of Engineers (the "Corps") under the Clean Water Act is to facilitate public comment. Both the language of the Act and the conference notes concerning the creation of the Act make it clear that public comment and participation in the consideration of proposed permits is fundamental and crucial. In mailing out a notice for public comment less than one week before the Christmas and Jewish holidays, and beginning the public comment period the following day (December 20) the Corps had to be aware that would likely be delays in delivery of mail to citizens receiving notification of the draft permit. The Corps also had to be aware that many people, who would otherwise be able to provide public comments on the proposed permit, would instead be involved with their families during the holiday season. The Corps' handling of the public participation process has thus far resulted in the elimination of perhaps half of the public comment period designated in the permit.

Public comment concerning this proposed permit has been extremely significant. The recent NPDES permit process involved a public information meeting followed by a public hearing at the Burien Library, which is located in the affected community. The proposed Section 404 permit is no less significant in its impacts on the affected citizens and should afford similar if not greater opportunities for public information and comment.

There have been numerous inquiries to the Corps advising of the serious public concerns about the proposed issuance of this permit. Yet the Corps provided no notification of its schedule for issuance of the proposed permit for public comment. In this context, citizens may justifiably perceive the current process as a deliberate attempt to sabotage the public process for public comment mandated by law.

The scope and magnitude of the proposed project demand much more extensive public involvement. This proposed Section 404 permit for the Sea-Tac Airport Master Plan contemplates a project reminiscent of the largest earth moving operation ever conducted in Washington State, namely the construction of Grand Coulee Dam.

According to the Port of Seattle's Supplemental Environmental Impact Statement (SEIS) the amount of fill dirt required for the project is estimated at 26.4 million cubic yards (not the 20.4 million yard figure cited in the proposed permit). However, even this figure is in dispute since the Port's EIS failed to provide a geo-technical study of the proposed fill site to estimate the amount of unsuitable soils which would need to be removed from the project site for the proposed 3rd runway. Additionally, the fill estimate in the Port's EIS has failed to consider the "swell" and "shrinkage" factors associated with the transportation of fill dirt by haul trucks resulting in an underestimation of the amount of fill required by an amount exceeding 6 percent. [1] The proposed rechannelization of 980 feet of Miller Creek, 2,280 feet of drainage channels in the Miller Creek Basin, and 2,200 feet in the Des Moines Creek basin, will have profound effects upon local residents, and municipalities, most notably the Cities of Burien, Des Moines, Normandy Park, and Sea-Tac.

REQUEST FOR PUBLIC HEARING

We request that the public comment period be extended to at least a 60 day public comment period. Page 4 of the application states that "any person may request, in writing, within the comment period ... that a public hearing be held to consider this application" and that "[r]equests for public hearings shall state, with particularity, the reasons for holding a public hearing."

One of the reasons that the Corps needs to hold a public hearing is to allow public input and information into a process which has been up to this point largely controlled by the Port. Because more than 2 acres of wetlands fill are proposed the Corps is required to a make a legal presumption that that there are alternatives to construction of a third runway at Sea-Tac airport. Alternatives which have been previously submitted to the Port in response to its EIS but which the Port has failed to consider as alternatives in its permit application. Examples of these alternatives include the use of FAA designated reliever airports. Enclosed is a copy of July 11, 1996 letter [2]from Frederick M. Issac, Regional Administrator of the Northwest Mountain Region of the Federal Aviation Administration ("FAA") acknowledging that Snohomish County Airport ("Paine Field") is "designated a reliever airport in the FAA's National Plan of Integrated Airport Systems (NPIAS)." Mr. Issacs' letter goes on to points out that Paine Fields designation does not prohibit commercial operations, and further that the County's recent Master Plan Update encourages general aviation and commercial operations. It is also important that the proposed permit has filed to consider that King County International Airport, Renton Airport, and Auburn City Airport are also currently FAA designated reliever airports in the NPIAS system.

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[1] Comments on the Analysis of Construction Impacts in the Draft SEIS for Seattle-Tacoma International Airport, prepared by Jimmie Hintze, PE and Christopher Brown & Associates, March 28, 1997

[2] July 11, 1996 letter from Frederick M. Issac, Regional Administrator of the Northwest Mountain Region of the Federal Aviation Administration ("FAA") to Allan M. Furney

Another example of alternatives which has been recommended in response to the Port's EIS yet have not been considered in the permit as an alternative to filling wetlands is the implementation of existing technologies in use and currently being utilized to allow full use of Sea-Tac airports existing runway in low visibility weather conditions. The *raison d'etre* for the runway project according to the EIS is reduced runway capacity experienced when Instrument Flight Rule (IFR) low visibility weather conditions occur at Sea-Tac. In a 1995 study, [3] an aviation planning expert determined that implementation of existing navigational technology called Localizer Directional Array (LDA) at Sea-Tac will eliminate the need for a 3rd runway. The Port has admitted that this technology is feasible. In an August 1995 article [4] published in the *Seattle PI* Port of Seattle planner Burr Stewart, speaking concerning implementation of LDA at Sea-Tac, is quoted stating "It will work".

Another alternative which the Port has admitted is feasible at Sea-Tac airport yet which the Port's application has failed to recognize will obviate the need for the filling of wetlands is implementation of Global Positioning Satellite (GPS) Technology in conjunction with paired approaches to closely spaced parallel runways. [5] A copy of a recent study of this technology is enclosed. The Port, in its response to public comments on the Supplemental Environmental Impact Statement for the proposed 3rd runway project admitted the viability of GPS and related technologies to increase the capacity of Sea-Tac's existing runways. The enclosed study discloses use of a paired approach procedure at San Francisco International Airport which has parallel runways spaced 750 apart, comparable to the 800 foot separation of Sea-Tac airports existing runways.

These are examples of alternatives which should be considered by the Corps in making the determination whether there are alternatives to the proposed action of filling wetlands.

At least one public hearing should be held, preferably two, at a convenient location for affected community residents (not in Downtown Seattle), during the evening hours (not during rush hour). The Corps provide a court reporter to provide a transcript of the public testimony and the public hearing should be advertised at least three weeks in advance.

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[3] Implementation of an LDA/DME Approach to Runway 16R in Lieu of a Third Runway at SeaTac Airport prepared by G.Bogan & Associates Inc. June 26, 1995

[4] "Third-runway foes say Port pushed foggy statistics", Seattle Post Intelligencer, August 3, 1995, p.B1

[5] Proceedings of the NASA Workshop on Flight Deck Centered Parallel Runway Approaches in Instrument Meteorological Conditions, NASA Conference Publication 10191, December 1996

ADDITIONAL PUBLIC PARTICIPATION

The Corps needs to make provisions for better public participation. The permit language should be modified to include this element of public participation. All data related to the permit should be available at a location in the community so the public can readily access the data. rather than having to file Public Disclosure Requests with the Corps, POS or Ecology.

The public input process in conjunction with this permit has up to this point been poorly implemented. Mr. Jonathan Freedman, the alleged Project Manager for this permit has been essentially unavailable since notice of the permit was issued. On Monday January 2, the first day after public notice of the permit was issued, many members of the public attempted to contact Mr. Freedman. They were informed that Mr. Freedman was on vacation and would not be available until January 12. On January 12 Mr. Freedman was not available. A voicemail message on his telephone line (Telephone no. 764-3495) informed callers that a Ms. Carol McCormick should be contacted at 764-5529 concerning questions regarding the proposed Sea-Tac Section 404 permit. Attempts to contact Ms. McCormick were unsuccessful since she was not available at this telephone number.

REVIEW OF ADDITIONAL PROBLEMS WITH PERMIT

There are a number of major concerns related to the currently proposed permit:

The Proposed Permit Completely Fails to Define the Scope of the Proposed Actions, Including Identifying All the Affected Wetlands, and the Mitigation Prescribed

Page one (1) of the proposed permit states that "[t]he quantity of wetlands to be filled is based on the best information available at this time. . . . It is possible that some additional wetland areas and acreage could be identified when access is available to all wetlands in the project area." If the Corps doesn't know how many acres of wetlands are affected how can the public comment intelligently upon the proposed actions? Further, how can the public assess the mitigation required to replace affected wetlands?

The Proposed Permit is Missing Information and Contains False, Erroneous and Misleading Information

It is our view that the Corps can not properly issue a Section 404 permit without providing the public a complete and accurate permit application. We believe the proposed permit submitted for public comment is grossly defective. The Clean Water Act contains clear requirements for information which is required to be provided in the permit application. The Clean Water Act indicates if required information is not provided the agency shall find it to be incomplete and require the additional information be provided.

The Proposed Permit Fails to Consider the Implications Which Pendant Litigation May Have on the Proposed Permit

Proposed provisions in the proposed Section 404 permit are implicated by current litigation and proposed permits related to the Section 404 permit which are currently in dispute. For example, there is currently a dispute concerning the interpretation and application of Washington State's ground water law. (RCW 90.48.035 and WAC 173200) to the proposed NPDES permit. There is a dispute concerning whether a State issued waste discharge permit is required in conjunction with this NPDES permit. There is also a disagreement over the establishment of effluent limitations from Port outfalls, for glycol, and dissolved metals, as well as levels of fecal coliform, etc., and at what time these limitations should be imposed. There are objections to establishing a [five (5) year] moratorium on effluent limitations which would not come into effect until after the permit expires. There are a multitude of technical issues related to the policies or best management practices (BMP's) proposed in the proposed NPDES permit.

The Proposed Permit Proposes Relocation of Wetlands for a Project Which the Corps has Previously Required Wetlands Relocation in the Same Basin System

A section of the permit pertaining to relocation of wetlands associated with the South Aviation Support Area (SASA) proposes to relocate affected wetlands to the Green River Basin. This is not consistent with previous Corps direction concerning the proposed SASA facility. In 1992 the Corps reviewed the EIS for the proposed SASA facility and established that replacement wetlands should be retained in the Des Moines Creek (same) basin.

The Proposed Permit Fails to Consider Recent Information Which has been provided concerning the Impact of Wetlands on Preserving Water Quality in the Surrounding Region.

There are issues concerning additional provisions which should be incorporated into the permit including, for example, recommendations from recent studies. All of these controversies implicate the issuance of the proposed Section 404 permit. Enclosed is a copy of the comments recently submitted by our organization in conjunction with the public comment on the proposed NPDES permit. [6] Also enclosed are additional comments on the proposed NPDES permit dated December 10, 1997 which include 39 pages of additional comments, and Attachments A through G. [7] [8] [9] [10] [11] [12] [13]

The Proposed Permit Fails to Consider Federal Requirements to minimize the destruction, loss or Degradation of Wetlands and to Take all Practicable Measures to Minimize Harm to Wetlands

Every federal agency is obligated "to minimize the destruction loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities for ... providing Federally undertaken, financed, or assisted construction and improvements."[1]

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[6] RCAA letter dated December 9, 1997 to Washington State Department of Ecology (11 pages)

[7] Sea-Tac Airport NPDES permit application comments (Final) dated July 9, 1997 (42 pages)

[8] Breaking the Ice, Aircraft Technology Engineering & Maintenance, Dec-Jan. 1997, pp. 16-21 (5 pages)

[9] Letter dated April 17, 1997 to Dr. Donald H. Stuhring from Rob Kent, Head, Water Quality and Assessments Guidelines Division, Environment Canada (2 pages)

[10] Consent Decree, *Waste Action Project v. Port of Seattle*, United States District Court, No. CC95-125 IR (17 pages)

[11] The Polluted Waters Report, Final Report of the Polluted Waters Mapping Project Green-Duwamish Watershed and Lower Puget Sound Drainage, King County Washington, prepared by Puget Sound Keeper Alliance, 1997 (26 pages)

[12] Toxicity of Aircraft De-Icer Solutions on Aquatic Organisms, prepared by S. Ian Hartwell, David M. Jordahl, Eric B. May, Chesapeake Bay Research and Monitoring Division, State of Maryland Department of Natural Resources. May 1993 (44 pages)

[13] Port of Seattle letter dated November 11, 1997 to Ms. Lisa Zinner, PE, Washington State Department of Ecology (2 pages)

Federal agencies, including the FAA, are prohibited from providing funding or other assistance for the construction of projects in wetlands unless they find "(1) that there is no practicable altemative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use." [iii] Each of the Master Plan Update "With Project" proposed alternatives would affect existing wetlands. [iii] "Impacts on these wetlands would include: placement of fill material, dredging, removal of existing vegetation, and changes in hydrologic regimes as a result of increase impervious surface area and stormwater management system restructuring." [iv]

Section 404 of the Clean Water Act requires that anyone proposing to discharge dredged or fill material into navigable waters must first obtain a permit from the U.S. Army Corps of Engineers ('Corps'). [v] "Navigable waters" are defined as "waters of the United States," [vi] which have been interpreted by the Corps to include "wetlands." [vii] Since construction of the proposed third runway and associated Master Plan Update development actions would affect wetlands, these projects could not be undertaken unless the FAA has affirmatively determined

a. that there is no practicable alternative to such construction; and

b. that the proposed action includes all practicable measures to minimize harm to wetlands which may result. [viii]

The Port's EIS is required to contain a discussion of the basis for any such findings, along with a discussion of the various alternatives which have been considered. [ix] As discussed in detail elsewhere in these Comments, [x] the Port's EIS as well as the application for a proposed Section 404 Corps of Engineers Permit fails to consider a reasonable range of alternatives which would satisfy the Port's purpose and need for the proposed Airport expansion project. The Port's EIS, therefore, cannot legally serve as the basis for a determination that there is no practicable altemative to the use of wetlands. In particular, the failure to consider alternatives which would reduce or eliminate the use of fill would prevent the FAA from making a legally-sufficient finding.

If a legally-sufficient finding were to be made, the Port would then be required to obtain a permit pursuant to Section 404 of the Clean Water Act [xi] in order to dredge or fill the affected wetlands. [xii] Corps regulations state that "a permit will be granted unless the district engineer determines that it would be contrary to the public interest." [xiii]

The public interest review requires the Corps' District Engineer to evaluate all probable impacts of the proposed activity, including cumulative impacts. The factors to be considered include:

> *conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.* [xiv]

Other factors to be considered include the need for the project, the practicability of using other alternatives and the extent of permanent damage to the environment from the project. [xv]

The Corps Must Apply EPA Standards concerning Issuance of a Wetlands Permit

In addition to complying with Corps regulations, the District Engineer must apply EPA standards for issuance of a wetlands permit.[xvi] Notwithstanding Corps administrative control over the application process, EPA may veto any permit approved by the Corps if the project "will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. [xvii]

EPA's veto authority is particularly important in the context of its ability to demand an evaluation of alternatives to the issuance of a wetlands permit. EPA regulations prohibit the issuance of a wetlands permit if there exists a "practicable" alternative to the proposal.[xviii] "An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes," [xix] EPA Guidelines also require that where non-water dependent activities are involved (e.g., an airport) the Corps must determine whether a 'practicable' alternative site exists which would cause less environmental harm to wetlands. [xx] The Guidelines further provide that, if a project is not water dependent, practicable alternatives are (1) "presumed to be available;" and (2) presumed to have less adverse impact on the aquatic ecosystem. [xxi]

The Proposed Permit Fails to Comply With Wetlands Protection Measures Adopted by State and Local Municipalities

In addition to complying with federal permitting requirements, the Port also will have to obtain a wetlands permit from the Washington State Department of Ecology ("DOE") and the Washington Department of Fisheries and Wildlife. The Washington Growth Management Act ("GMA") provides supplemental protection to wetlands by requiring cities and counties to designate critical areas -- including wetlands -- and to issue development regulations to protect these designated areas. [xxiii] The GMA requires cities and counties to exercise control over changes in land uses, new activities, or development that potentially could adversely affect critical areas. The GMA also requires cities and counties to prohibit clearly inappropriate activities, and restrict, allow or condition other activities, as appropriate. [xxiii]

The cities of Normandy Park and Des Moines have adopted ordinances dealing with environmentally sensitive areas which regulate and restrict development activities. [xxv] Each of these ordinances includes wetlands in the definition of environmentally sensitive areas. [xxv] Both cities restrict development in areas where "significant and important wetlands and their buffers" are located. [xxvi] The cities also require that where development is allowed, buffers of 100 feet and 35 feet must be maintained for significant and important wetlands, respectively. [xxvii] The cities also regulate wetlands mitigation activities, specifying the replacement ratio and the replacement location. [xxviii] A similar regulatory regime is found in Tukwila's Sensitive Areas Overlay Zone. [xxix]

The following table sets forth the requirements adopted by the ACC cities and the City of SeaTac with which the Port will have to comply.

City	Wetlands Types	Buffers (Feet)	Requirements for Location of Mitigation
Burien	Class 1,2,3	100, 50, 25	Section 480F. "...that the off site location is in the same drainage sub-basin as the original wetland..."
Des Moines	Significant, Important	100, 35	18.86.107 "...if the compensation project is within the same subwatershed as the wetlands or stream to be altered..."
Normandy Park	Significant, Important	100, 35	13.16.120.9.A.(ii) "...if the compensation project is in the same sub-watershed within Normandy Park city limits as the wetlands to be altered. "
Tukwila	Type 1, 2, 3	100, 50, 25	18.45.089(c)(2)(ii) "Off-site compensation shall occur within the same watershed where the wetlands loss occurred. "
SeaTac	Class I, II, III	100,50,35	15.30.320F. "...that the offsite location is in the same drainage sub-basin as the original wetland..."

Because the local wetlands requirements would affect the Port's proposed Airport expansion plans, the permit application must discuss how the Port proposes to address those wetlands requirements.

The Proposed Permit Fails Adequately to Examine Impacts on Wetlands and to Prescribe Appropriate Mitigation

The biological components sections of the Port's EIS contain insufficient analyses to support assumptions relative to either wetlands mitigation or potential impacts to federal and state-listed wildlife species. The wetlands section provides data that is inconsistent with original wetlands delineation reports and lacks any discussion of why the initial premise of the FAA Draft Advisory Circular was bypassed. Without additional studies and more accurate data the analyses provided in the permit application cannot be relied on by a responsible official evaluating the proposed Airport expansion projects.

The permit application does not explain the rationale behind assumptions and decisions made relative to FAA Draft Advisory Circular 150/5200, Wildlife Attractants on or Near Airports. Wetlands are considered major attractants to wildlife species that are assumed to be safety hazards to airport operations. The permit application does not discuss how the existing wetlands habitat conditions impact past, ongoing or future Airport operations. There are currently 102 acres of wetlands habitat including open-water that will remain within 4,000 feet or less of existing runways and the proposed third runway location. Strict adherence to the Draft Advisory Circular would preclude development of additional facilities at any location within 10,000 feet of existing wildlife attractants.

Ordinances enacted by Des Moines and the City of SeaTac regulating wetlands habitat modification require there be no net loss within the drainage basin of impact.[xxx] In place of the permit's proposed 24-acre wetlands mitigation in the Kent Valley [14], creation of 19.2 acres of palustrine forested, scrub/shrub and emergent wetlands would be required if mitigation was performed under affected city jurisdictions. The assumption that insufficient land to perform wetlands mitigation is available within the drainage of impact completely overlooks availability of over 400 acres of undeveloped land within the project boundary. The permit application particularly overlooks Borrow Areas 1, 2, 3 and 5 for which reclamation plans, if they exist, are not disclosed in the Port's EIS for the proposed projects. Use of Borrow Areas 1, 2 or 3 for wetlands mitigation would place mitigation sites 6,000 to 8,000 feet away from the planned new runway. This would be a distance factor of two to five times further away than existing wetlands habitats.

[14] Permit Application, pp.2-3

A second unsupported assumption is that wetlands mitigation in the drainage or subbasin of impact cannot be accomplished without creating additional wildlife hazards. The permit application fails to acknowledge the Record of Decision agreed to by the Airport and FAA officials that provides onsite wetlands mitigation plans for the SASA project. The approved SASA mitigation plan proposes to relocate Des Moines Creek and create forested and scrub/shrub wetlands within 1,000 feet of Runway 34R.

The discussion of wetlands in the Port's project EIS states that 9.7 acres of wetlands would be lost, [xxxi] but data presented in EIS tables and appendices and original wetlands delineation reports indicate this value is closer to 10.7 acres. The Comprehensive/Intermediate-level wetlands delineations (Wetlands #1-#32), prepared by consultants to the Port, appear to have been conducted in a manner that is inconsistent with Corps manual directions. Specifically, paired-plot wetlands versus upland analysis was performed at each site. Also, due to a lack of formal land survey, there appears to be no basis for assuming that much of the wetlands acreage provided in the DEIS are more than rough estimates.

The wetlands mitigation and stream location plans provided as appendices to the Port's EIS are conceptual in nature. [xxxii] The detail provided in them is inadequate to assess the ability of the plans to mitigate for impacts of the proposed project. Stream relocation and mitigation plans should have explored the removal of downstream barriers to anadramous fish. Monitoring plans outlined for these projects are inadequate to assure successful creation of habitats as complex and long-lived as forested wetlands and riparian zones.

The cumulative effects analysis in the Port's EIS for all environmental components is inadequate pursuant to the requirements of NEPA. There was no analysis of past or foreseeable future impacts to wetlands or threatened and endangered wildlife habitats in a cumulative effects area larger than the proposed project site. At a minimum the analyses should have evaluated past, present and future expected impacts within the total watershed for both Miller Creek and Des Moines Creek.

Conclusion

An analysis of wetlands impacts associated with this permit that would satisfy the requirements of the Clean Water Act, as well as other Federal and State laws will lead the Army Corps of Engineers to conclude:

The project violates the FAA Draft Advisory Circular that recommends new facilities not be located in the vicinity of existing wetlands or other wildlife attractants.

Sufficient land is available such that wetlands mitigation could be located in the drainage of impact as required by local ordinances.

Wetlands mitigation could be designed that does not create an undue wildlife hazard to airport operations. The lack of a prior history of wildlife hazard problems at Sea-Tac would indicate that existing wildlife habitats do not attract species hazardous to flight operations.

Due to cumulative effects of past projects, a high proportion of wetlands habitat that existed in the two watersheds 20 to 50 years ago have been filled by Port and by commercial and residential construction. Further loss of wetlands in the Miller and Des Moines Creek drainages will add to degradation of water quality and changes to stormwater runoff regimes. These conditions would contribute to existing downstream erosion/mass wasting problems in both drainages.

The permit application has failed to consider feasible and reasonable alternatives to the proposed filling of wetlands

Therefore the permit application should be rejected by the Army Corps of Engineers.

If you have any questions please contact me.

Sincerely,

Allan M. Furney
President
Regional Commission on Airport Affairs

Enclosures:

Letter dated July 11, 1996 from Frederick M. Issac, Regional Administrator of the Northwest Mountain Region of the Federal Aviation Administration (1 page)

Implementation of an LDA/DME Approach to Runway 16R in Lieu of a Third Runway at SeaTac Airport prepared by G. Bogan & Associates Inc. June 26, 1995

Third-runway foes say Port pushed foggy statistics", Seattle Post Intelligencer, August 3, 1995, p.B1

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Port of Seattle letter dated November 11, 1997 to Ms. Lisa Zinner, PE, Washington State Department of Ecology (2 pages)

cc:

U.S. Environmental Protection Agency, Region X
U.S. Congressman Adam Smith
Office of the Inspector General - Environmental Protection Agency
Office of the Inspector General - Army Corps of Engineers
Washington State Department of Ecology
Airport Communities Coalition
Miller Creek Management Coalition
Normandy Park Community Club
Sierra Club
Trout Unlimited
Puget Sound Water Quality Authority

[i] Exec. Order No. 11,990 § l(a)(2), 42 Fed. Reg. 26, 961 (1977), amended by Exec. Order No. 12,608, 52 Fed. Reg. 34,617 (1987), reprinted in, 42 U.S.C.A. § 4321 (West 1995).

[ii] Id.

[iii] DEIS, vol. I at IV.11-1.

[iv] Id.

[v] 33 U.S.C.A. § 1344(a) (West 1995).

[vi] Id. § 1362(7).

[vii] This interpretation was upheld by the Supreme Court as consistent with the broad statutory grant of authority to the Corps to regulate "waters of the United States." United States v. Riverside Bayview Homes, Inc., 476 U.S. 121, 131 (1985). See also United States v. Akers, 785 F.2d 814, 818 (9th Cir.) , cert. denied, 479 U.S. 828 (1986).

[viii] Order 5050.4A 11 47e(I 1)(b)2, 83e.

[ix] Id. Para. 85.

[x] See supra § 4. 1.

[xi] 33 U.S.C.A. § 1344

[xii] Id.

[xiii] 33 C.F.R. § 320.4(a)(1) (1994).

[xiv] Id.

[xv] Id.

[xvi] 40 C.F.R. § 230.10

[xvii] 33 U.S.C. § 1344(c).

[xviii] 40 C.F.R. 230.10(a)

[xix] Id. § 230.10(a)(2).

[xx] Id. § 230.10(a)

[xxi] Id. § 230.10(a)(3) (emphasis added).

[xxii] RCW 36.70A. 170,.060(1); WAC 365-190-040.

[23] WAC 365-190-020

[xxiv] See Normandy Park, Wash., Mun. Code ("NPMC") ch. 13.16; Des Moines, Wash., Mun. Code ('DMMC') ch. 18.86

[xxv] NPMC 13.16.030(14); DMMC 18.86.252.

[xxvi] NPMC 13.16.060(a)(1); DMMC 18.86.060(a). Significant and important wetlands are defined in the NPMC 13.16.030(52)(A), (E) and in the DMMC 1.04.663(1), (2).

[xxvii] NPMC 13.16.070(a)(2)(A), (B); DMMC 18.86.070(2)(A), (B).

[xxviii] For example, Des Moines adopted a goal of no net loss of wetlands within a particular drainage basin and requires 1:1 replacement or enhancement/restoration. DMMC § 18.86.107. Normandy Park adopted a goal of no net loss of wetlands within a particular drainage basin. NPMC § 13.16.120.9.(a).(ii). The City of SeaTac has adopted a goal of no net loss of wetlands within a sub-basin and requires a 2:1 replacement ratio for Class 1 and 2 wetlands and a 1:1 replacement ratio for Class 3 wetlands. City of SeaTac, WA Mun. Code § 15.30.320F.

[xxix] Tukwila, WA., Mun..Code Chapter §18.45.089(c)(2)(ii)

[xxx] See supra § 5.9.2.

[xxxi] DEIS at V.11-i.

[xxxii] See id., vol. 3, app. P-A, P-B.

DOE-G-3

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January 20, 1998

VIA Facsimile

Mr. Tom Luster
Permit Coordination Unit
Department of Ecology
P.O. Box 47703
Olympia, WA 98504-7703

Re: Comments on Water Quality Certification for Proposed Master Plan Update Improvements at Seattle-Tacoma International Airport, Corps of Engineers Public Notice No. 96-4-02325

Dear Mr. Luster:

In response to the Department of Ecology's Notice of Application for Water Quality Certification and for Certification of Consistency with the Washington Coastal Zone Management Program and request for comment, Cutler & Stanfield, L.L.P., on behalf of the cities of Burien, Des Moines, Federal Way, Normandy Park, and Tukwila, Washington, and the Highline School District, individually, and collectively as the Airport Communities Coalition ("ACC"), hereby submits the enclosed comments on the Port of Seattle's JARPA Application for Proposed Master Plan Update Improvements at Seattle-Tacoma International Airport. The Port's application covers, among other things, Department of Ecology water quality certification pursuant to the requirements of Section 401 of the Federal Clean Water Act. We highlight for the Department of Ecology's consideration Parts IV and V and Attachment 3 (ACC Comments on Proposed NPDES Permit) of the enclosed comments pertaining specifically to the project's compliance with water pollution control laws. We respectfully request that the Department of

Ecology carefully consider these comments which we believe preclude water quality certification of this project.

Sincerely,

Peter J. Kirsch

cc: Mr. John Rankin, Chairman, ACC Executive Committee
Ms. Kristen Hanson

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Mr. Jonathan Freedman
Regulatory Branch
United States Army Corps of Engineers
Seattle District
P.O. Box 3755
Seattle, Washington 98124-2255

Re: Comments on the Port of Seattle Section 404 Permit Application
File No. 96-4-02325

Dear Mr. Freedman:

In response to the Public Notice of Application for Permit ("Notice") and the Army Corps of Engineers' ("the Corps") request for public comment, Cutler & Stanfield, L.L.P., on behalf of the cities of Burien, Des Moines, Federal Way, Normandy Park, and Tukwila, Washington, and the Highline School District, individually, and collectively as the Airport Communities Coalition ("ACC"), hereby comments on the Port of Seattle's application for a Department of the Army Permit in accordance with Section 404 of the Federal Clean Water Act ("Port Permit Application"). In addition, the ACC hereby respectfully requests that the Corps hold a public hearing to consider the Port's Permit Application.

The work covered by the Port Permit Application would implement proposed master plan update improvements at the Seattle-Tacoma International Airport ("Sea-Tac Expansion"). These

improvements essentially would result in construction of a new Airport at a cost of $3.3 billion. The improvements include a new 8,500 foot runway parallel to the existing runways; the development of corresponding taxiways and runway utilities; the extension of an existing runway to 12,500 feet; the erection of a new air traffic control tower; a vast expansion of existing terminal facilities; and the addition of new terminal, parking, cargo, maintenance and support facilities. The Port anticipates this work to affect at least 12.13 acres of identified wetlands. The work also would affect drainage and groundwater recharge in up to 30% of the Des Moines Creek basin and portions of the Miller Creek basin as well as require the relocation of nearly one mile of Miller Creek and its tributaries.

These comments are not intended to provide a line-by-line critique of the inadequacies of the Port Permit Application. Instead, the ACC will focus on the issues which seriously compromise the sufficiency of the document and which merit the Corps's denial of the Port Permit. Many of the points the ACC raises in this letter, as well as others not addressed here, have been raised in detail in comments the ACC has submitted throughout the approval process for the Sea-Tac Expansion. The ACC incorporates these comments by reference as they apply to the consideration of the Port Permit Application and attaches relevant portions for the Corps's convenience. See ACC, Comments on the Draft EIS (Aug. 3, 1995) (Attachment 1); ACC, Comments on the Draft SEIS (March 31, 1997) (Attachment 2); ACC, Comments on Proposed NPDES Permit (Dec. 9, 1997) (Attachment 3).

As set out in detail below, and in accordance with its own regulations, the Corps should decline to issue a permit for this work on grounds that the Port Permit Application fails to comply with the restrictions on discharge set out in EPA regulations and the Corps own permitting requirements.

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I. A Public Hearing Should Be Held to Facilitate Consideration of Material Technical and Legal Matters at Issue in the Port Permit Application and the Sea-Tac Expansion.

The Corps regulations require that requests for public hearing be granted where substantial issues are raised or valid interests will be served by a hearing. 33 C.F.R. § 327.4. In this case, the issues raised by the Port Permit Application are substantial, in fact, sufficiently substantial to justify denial of the permit. The application presents deficiencies which preclude the Corps from issuing a permit pursuant to the Corps's own regulations. In particular: (1) there is a "practicable alternative" to the Sea-Tac expansion which would have a less adverse impact on the aquatic system; (2) the expansion project does not include appropriate wetlands mitigation measures; (3) the permit would cause or contribute to a significant degradation of the waters of the United States; (4) the permit would cause or contribute to violations of applicable State water quality standards; and (5) the mitigation measures proposed by the permit are inconsistent with local regulations governing wetlands and the views of local officials.

Undeniably, valid interests would be served by a hearing. The magnitude of the project covered by the Port Permit Application is unprecedented in the United States, if not the world. Because Sea-Tac Airport is sited on a plateau rising hundreds of feet above the surrounding land, the proposed placement of the new runway would require the construction of a massive fill embankment, with a height of up to 200 feet in order create a surface which would be level with the existing airfield. See Final EIS at IV.19-1, IV.19-8 to IV.19-18 (Ex. IV.19-1). The Port estimates that this embankment would require twenty-six million cubic yards of dirt—literally a mountain of dirt. See Final EIS at IV.23-13A (Table IV.23-1) Much of this dirt would originate from on-site borrow sources in the Miller and Des Moines Creek basins and in or near 144 acres of identified wetlands.

The scope and potential impact of this project has inspired significant concern by the citizens of the jurisdictions on whose behalf these comments are submitted, as well as other

communities. This concern has been clear at every phase of the project approval and permitting process. A hearing is necessary both to assure that the public is fully informed of the effects of the Sea-Tac Expansion on aquatic resources and water quality and to assure that the public is afforded every opportunity for participation in the Corps's consideration of the Port Permit Application.

Moreover, the Corps has committed to "avoid adverse impacts and offset unavoidable impacts to existing aquatic resources" and, for wetlands, "to achieve a goal of no overall net loss of values and functions." See Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army Concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines (1990) ("Mitigation MOU"). A hearing is critical to the consideration and presentation of data and technical issues involved in achieving these goals with respect to the proposed Sea-Tac Expansion. The Guidelines require the preparation of written factual determinations to be used "in making findings of compliance or non-compliance with the restrictions on discharge" set out in the Guidelines. Determining the compliance of the Port Permit Application will require, among other things:

- the careful evaluation of proposed methods of mitigation and their likelihood of success;
- evaluation of appropriate wetlands replacement ratios;
- attention to the functions in the watershed fulfilled by the particular wetlands and other waters to be affected; and
- evaluation of the risk of impacts to water quality within the aquatic system.

See generally 40 C.F.R. § 230 Subparts C, D, E, F, G. Making these determinations will be technically demanding. In addition, much of the data and other information relating to these questions will be presented for the first time during the review of the Port Permit Application. The opportunity provided by a public hearing for presentation of alternative recommendations and analysis on these technical issues, as well as for rebuttal by the Port, is critical both to

facilitate the Corps's development of factual determinations and for their careful consideration in determining the Port's compliance with the requirements of the Guidelines.

II. The Corps Must Deny the Port Permit Because There Is a "Practicable Alternative" That Would Have a Less Adverse Impact on the Aquatic System.

The Guidelines prohibit the issuance of a 404(b)(1) permit "if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant environmental consequences." 40 C.F.R. § 230.10(a). An alternative is practicable "if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." See 40 C.F.R. § 230.10(a)(2). As the ACC has argued before, a runway considerably shorter than the Port's proposal is highly practicable and would have a less adverse impact on aquatic resources. See, e.g., ACC, Comments on the Draft EIS (Aug. 3, 1995).

A. The Port Permit Application Fails to Provide Sufficient Analysis to Consider this Alternative Under the Guidelines.

The Port Permit Application makes no attempt to address alternatives to the construction of an 8,500 foot runway. The Notice merely refers to the discussion of alternatives set out in the "Final Environmental Impact Statement for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport" ("Final EIS") and the "Final Supplemental Environmental Impact Statement for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport" ("Final SEIS"). The Guidelines dictate that where the analysis of alternatives required for NEPA documents has not "considered the alternatives in sufficient detail" to determine whether there are practicable alternatives to the proposed action, "it may be necessary to supplement these NEPA documents with this additional information." 40 C.F.R. § 230.10(a)(4). The Corps cannot rely on these Federal Aviation Administration

NEPA documents because these documents do not consider shorter runway alternatives adequately or in sufficient detail to meet the Guideline requirements.

Neither of these NEPA documents provides a meaningful discussion of shorter runway alternatives or the reduction in impacts on wetlands and aquatic resources a shorter runway could achieve. In its comments on the Draft EIS, the ACC argued that shorter runway lengths would meet the stated purpose and need for the project, see, e.g., ACC, Comments on the Draft EIS at 4-26 through 4-42, and would reduce or eliminate the use of wetlands associated with the construction of the third runway. Id. at 5.6-1. The record makes clear, however, that the Port never considered in detail a shorter runway designed and located *specifically* to reduce fill requirements. Instead of closely examining even a 7,000-foot runway alternative (Final EIS Option 4B), the Port merely inserted a statement in a footnote, in the smallest print used in the Final EIS, that eliminated Option 4B from any meaningful consideration. The Port stated that Option 4B "was not evaluated due to its similarity to Options 4A, 4C, and 5." Final EIS, (Table II-5) unnumbered footnote (quote in actual size used in the EIS). This analysis is hardly sufficient to determine whether a shorter runway is a practicable alternative that would have a less adverse impact on the aquatic system.

B. A Runway Considerably Shorter Than The Port's Proposal Would Feasibly Meet the Port's Stated Purpose and Need.

It is the responsibility of the Corps to "exercise independent judgment in defining the purpose and need for the project from both the applicant's and the public's perspective." NEPA Implementation Procedures for the Regulatory Program, 33 C.F.R. Part 325, Appendix B § 9(b)(4). An independent analysis by the Corps would show that a runway considerably shorter than the Port's proposal (between 6,000 and 6,700 feet long) would feasibly meet the Port's stated purpose and need as well as the public's. See Written Testimony of Dr. Stephen L.M. Hockaday submitted to the Hearing Examiner of the Port of Seattle, Case No. 96-04 ("Hockaday

Testimony") at 2-6 (Attachment 4). In both the Final EIS and the Final SEIS, the Port stated that the proposed third runway was needed to "improve the poor weather airfield operating capability in a manner that accommodates aircraft activity with an acceptable level of aircraft delay." Final SEIS at 2-18. Since the Port has acknowledged that "[a]rrival delay represents over 85 percent of total current delay experienced by an average flight [at Sea-Tac Airport]," a new runway would principally reduce delays for aircraft ***landing*** in poor weather. Final EIS at I-15; see also Final SEIS at 2-8 (Table 2-4). This admission is significant because aircraft need less distance to land than they do to take off. Hockaday Testimony at 3.

Based on a technical evaluation of Port data indicating the types of aircraft likely to use Sea-Tac Airport, a runway considerably shorter than 8,500 feet could still accommodate the vast majority of aircraft, and therefore meet the Port's stated need of improved poor weather operating capability. Id. A runway as short as 4,000 feet could accommodate all current commuter, general aviation, and military operations, even in wet weather. Id. at 4. The Port's own data also shows that, on an annual average, a 6,000-foot runway could be used by 76 to 85 percent of landing aircraft. Id. Even more significant, a 6,700-foot runway would accommodate 99 to 100 percent of landing aircraft even in wet weather.[1] Id. By accommodating such a large percentage of aircraft arriving at Sea-Tac Airport, a 6,000 or 6,700-foot runway clearly would improve poor weather operating conditions, thus reducing poor weather delay—the precise purpose of the proposed third runway.

A 6,000 or 6,700-foot runway is feasible and would significantly reduce the amount of fill dirt required for runway construction. A runway 6,000 or 6,700 feet in length could be placed in precisely the same location as the Port's proposed 8,500-foot runway, i.e., so that the southern threshold would be at exactly the same location as the proposed 8,500-foot runway. Id.

[1] While poor weather *departure* delay constitutes only a fraction of Sea-Tac Airport's overall delay, a 6,700-foot runway would facilitate 87 percent of all departures. Hockaday Testimony at 5.

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at 6. Since the runway would be between 1,800 and 2,500 feet shorter, however, it would rest largely on the existing airfield plateau. Based on the Port's and FAA's analysis, such a placement is operationally feasible and would not unduly complicate terminal airspace management. Id. at 6.

In terms of fill requirements, the advantages of such a shorter runway are significant. A 6,000-foot runway would reduce project fill requirements by as much as seven and a half million cubic yards. Written Testimony of Dr. Jimmie Hinze submitted to the Hearing Examiner of the Port of Seattle, Case No. 96-04 ("Hinze Tesimony") at 9, Table 1. A 6,700-foot runway would reduce fill requirements by as much as nearly five million cubic yards. Id. These reductions may even be higher, although detailed comparisons are elusive since the Port's analysis of fill requirements is so vague that it is extremely difficult, if not impossible, to identify the details and working assumptions behind the agency's conclusions. Id. at 7-9. In any event, a 6,000-foot or 6,700-foot runway would eliminate the need for fill from on-site sources significantly. See Final SEIS at C-4-5 (Table C-4-2). For purposes of the Corps consideration of the Port Permit, this reduction in on-site fill requirements could reduce or *eliminate* impacts on wetlands from the strip mining of borrow sources.

More significantly, this reduction in fill requirements could avoid a significant amount of construction-related and long-term sedimentation of Des Moines Creek. Des Moines Creek flows between Borrow Areas No. 1, 2, 3 and 4. As clearly illustrated by Figure 1.1-1 of the Revised Mitigation Plan, mining of these areas would disturb a significant area of the Des Moines Creek drainage. The Port estimates that construction would result in an increase of total suspended solids of 14 to 36% in Des Moines Creek during and immediately following construction and an overall increase of 4% compared to existing loading. A shorter runway could eliminate the need to mine most of these three borrow sources, as demonstrated below. Merely by leaving the majority of these areas unmined, the Port could avoid significant construction-related impacts to the stream and leave in place existing vegetation and wetlands to

lessen surface water flow resulting from the increased areas of impervious surface in the watershed.[2]

On-Site Borrow Source	Fill Available (MCY)
#1	6.60
#2	.65
#3	2.9
#4	2.2

As this discussion makes clear, the shorter runway alternative is practicable, has a less adverse impact on the aquatic ecosystem, and does not have other significant environmental consequences. "Decision options available to the district engineer, which embrace *all* of the applicant's alternatives, are issue the permit, issue with modifications or conditions, or deny the permit." 33 C.F.R. Part 325 Appendix B § 9(b)(5) (emphasis added). In this case, the Corps has no choice but to either deny the Port Permit, or issue the permit only on the condition that Port construct a runway considerably shorter than the Port's proposal, such as the one proposed by the ACC.

III. The Corps May Not Issue the Port Permit Because Appropriate and Practicable Steps Have Not Been Taken to Minimize Potential Adverse Impacts on the Aquatic Ecosystem

The Guidelines mandate that "[n]o discharge of dredged and fill material shall be permitted unless appropriate and practicable steps have been taken which will minimize potential

[2] Final SEIS at 5-5-7. It is unclear to what extent the Port intends discharges to Des Moines Creek to be covered by the Port Permit Application. The Port notes that a separate permit application will be submitted, but then states that certain impacts "can be reasonably quantified now and will be discussed here." See Port Permit Application, Appendix B. To the extent that the Port has identified adverse impacts to this stream, the Corps should consider alternatives that would reduce those impacts.

adverse impacts of the discharge on the aquatic ecosystem." 40 C.F.R. § 230.10(d). The Mitigation MOU provides a three-step sequence for developing appropriate mitigation measures: (1) to the extent practicable, all adverse impacts must be avoided; (2) if adverse impacts cannot practicably be avoided, adverse impacts must, to the extent practicable, be minimized; (3) if adverse impacts cannot practicably be minimized, compensatory mitigation is required. The Port has failed to provide for appropriate mitigation of wetland impacts in its Wetlands Mitigation Plan.[3]

A. The Port's Mitigation Plan Fails to Provide or Adequately Consider Either On-Site or Same-Watershed Compensatory Mitigation as Preferred Under the Mitigation MOU.

Under the Mitigation MOU, compensatory mitigation should be undertaken on-site when practicable. If on-site compensatory mitigation is not practicable, the Mitigation MOU advises that off-site mitigation should be undertaken, when practicable, in the same geographic area (i.e., in close proximity and, to the extent possible, in the same watershed). The Mitigation MOU also enunciates the Corps's commitment to "give full consideration the views of the resource agencies when making this determination."

Contrary to the guidance of the Mitigation MOU, the Port' plan provides no on-site or same-watershed mitigation. Instead the Port prefers the creation of approximately 21 acres of new wetlands within the City of Auburn. See Mitigation Plan, at 3-1, 3-8; Final SEIS, at 5-5-14. According to the Final SEIS, mitigation within the same watershed supposedly is not feasible because "most" of the potential sites are too small to support the compensatory mitigation on one site, which would result in two or more sites without habitat connectivity to each other or to other habitat areas; watersheds are "largely" urbanized and "most" of the potential sites are

[3] According to the Final EIS, the Port would "minimize impact by using Best Management Practices (BMP) during construction and operation of the proposed improvements." Final EIS at IV.11-6. As discussed below in Part IV, BMPs are not adequate to control significant impacts to aquatic resources caused by the proposed fill activities.

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fragmented by homes, roadways, or other development; and proximity to existing and proposed runways creates a potential hazard between birds and aircraft. See Final SEIS, at 5-5-13; Final EIS, at IV.11-6.

This rationale is weak. First, maintaining the functions of *existing* wetlands does not create *new* hazards. Even if it did, compensatory mitigation of these functions is unlikely to affect bird hazards noticeably. According to the Final SEIS, "[l]arge soaring birds, such as raptors, gulls and blackbirds represent the greatest hazards." Final SEIS at 5-5-14. However, wetlands affected by the Sea-Tac Expansion do not provide a significant amount of habitat for these birds. The Revised Mitigation Plan indicates that affected emergent wetlands provide "low to moderate" habitat function for birds such as red-winged blackbirds. Revised Mitigation Plan, Table 2.2-4. Forested wetlands provide better habitat function, but the area of affected wetlands represents only about ten percent of the total forested wetlands inventoried in the study area and these wetlands "lack significant open water or standing water during the breeding season, limiting their function as waterfowl breeding habitat." Id. Table 2.2-4, Table 2.2-5. Further, even with these wetland losses, 102 acres of wetlands, including open water habitats of Lake Reba and Lora Lake and an 18-acre palustrine open water/forested/shrub-scrub/emergent wetland complex at the south end of Tub Lake which provides good habitat for many bird species, occur within 4,000 feet of the existing runways. The Port thus cannot claim that replacement of affected wetlands would have much, if any, marginal effect in attracting birds. Further, the Port's own stormwater management measures include relocation of Tyee Pond to provide 40-45 acre feet of storage capacity. Two of the pond's three cells would be *densely vegetated emergent wetland cells*. Final EIS at IV.10-17. Finally, the FAA's own response to comments was inconsistent with its position on bird hazards. In response to comments in the Final SEIS, the FAA maintained that Miller Creek mitigation would address wildlife and *bird* habitat lost by wetland fill. Final SEIS at F-126.

The Port's analysis of potential onsite mitigation areas also neglects the best candidate locations. As the ACC has argued previously, the Port's conclusion that appropriate areas to perform wetland mitigation are unavailable within the drainage of impact completely overlooks the availability of over 400 acres of undeveloped land within the project boundary. See ACC Comments on the Draft EIS at 5.6-7. The Port's EIS particularly overlooks Borrow Areas 1, 2, 3, and 4 for which reclamation plans, if they exist, are not disclosed in the Port's EIS. These areas apparently would remain as undeveloped land following removal of fill materials and would supply 190 acres of land suitable for mitigation. Use of Borrow Areas 1, 2, or 3 would place mitigation sites 6,000 to 8,000 feet away from the proposed new runway. This would be a distance factor of two to five times further away from existing and proposed runways than existing wetlands habitats. The Port's Revised Mitigation Plan repeats this oversight and by neglecting to consider these areas for compensatory mitigation.

The Port's failure to consider on-site or same-watershed mitigation also flies in the face of the comments of the resource agencies. As raised in comments on the Draft SEIS by the U.S. Department of the Interior ("DOI"), the FAA's rationale does not address cumulative wetlands impacts that would occur following project construction as a result of the smaller size and closer proximity of remaining wetlands to human activities if wetlands are not replaced on-site. DOI Comments on the Draft SEIS (April 8, 1997). Further, DOI disputed the main reason for pursuing remote mitigation sites – i.e., the potential hazard between birds and aircraft. DOI pointed out that creation or restoration of wetlands within 10,000 feet of an active runway would not increase "wildlife attractions" over existing levels but would simply replace the habitat destroyed by the proposed project within the same general area. Id. The Port's failure to give serious attention to on-site and same-watershed mitigation against the advice of a resource agency is a particularly egregious deficiency in its application which alone could merit denial of the Port Permit, particularly if the Fish & Wildlife Service ("FWS") concurs with the DOI in its

comments on the Port Permit Application.[4] See Sierra Club v. Corps of Engineers, 701 F.2d 1011, 1032-33 (2d Cir. 1983) (overturning a permit on grounds that (among other things) the Corps "simply ignored" the views of the agencies, and "never made a serious attempt to discover, or make a decision based on, reliable fisheries information."); 33 C.F.R. § 320.4(c) (requiring the Corps to give "full consideration" to the views of FWS on fish and wildlife matters).

B. Even Proposed Off-Site Compensatory Mitigation Is Likely To Be Inadequate To Meet the Goal of "No Overall Net Loss of Values and Functions" Set Out in the Mitigation MOU.

The Mitigation MOU acknowledges the difficulty of wetland creation such as that proposed by the Port. It states:

> There is continued uncertainty regarding the success of wetland creation or other habitat development. Therefore, in determining the nature and extent of habitat development of this type, careful consideration should be given to its likelihood of success. Because the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, restoration should be the first option considered.

In its comments on the Draft SEIS, DOI noted that the creation of wetlands would require experimental construction methods which pose an increased risk that the new wetlands will not be self-sustaining in perpetuity. As a result, DOI urged increasing the mitigation acreage. Notwithstanding this DOI criticism, the Revised Mitigation Plan not only fails to consider the likelihood of success of proposed wetland creation, but actually decreases the compensation ratios for replacement. While the Port's Revised Mitigation Plan provides for the creation of approximately 21 acres to mitigate for the loss of 12.23 acres of wetlands, the mitigation plan in

[4] DOI noted in its comments that "[b]ecause the proposed project would likely require a permit under section 404 of the Clean Water Act, the U.S. Fish and Wildlife Service may provide additional comments when the permit application is reviewed."

the Final EIS provided for the creation of 27.32 acres for the projected loss of only 10.34 acres. (Compare Tables 1 and 2, below.[5])

TABLE 1: Port's Revised Mitigation Plan

Project Impacts	Potential Acreage Provided	Compensation Ratio
Fill of 7.38 acres of forested wetland	In-kind replacement of 14.68 acres of forested wetland	2.0:1
Fill of 2.01 acres of scrub/shrub wetland	In-kind replacement of 2.01 acres of scrub/shrub wetlands	1.0:1
Fill of 2.88 acres of emergent wetlands	In-kind replacement of 4.32 acres of emergent wetland	1.5:1

TABLE 2: Port's Mitigation Plan Under the Final EIS

Project Impacts	Potential Acreage Provided	Compensation Ratio

[5] These tables were compiled from the information provided in the Final SEIS, at 5-5-2, and the Final EIS, App. P, at P3-19.

Project Impacts	Potential Acreage Provided	Compensation Ratio
Fill of 7.08 acres of forested wetland	In-kind replacement of 20.87 acres of forested wetland	Minimum 2.0:1 Maximum 2.95:1
Fill of 0.39 acres of scrub/shrub wetland	In-kind replacement of 1.02 acres of scrub/shrub wetlands	Minimum 2.0:1 Maximum 2.62:1
Fill of 2.88 acres of emergent wetlands	In-kind replacement of 5.43 acres of emergent wetland	Minimum 1.5:1 Maximum 1.89:1

This reduction in mitigation ratios and acreage is not justified and seriously compromises the Port's Revised Mitigation Plan. Compensation ratios of 1.5:1, 2:1, or even 10:1 are common depending on the characteristics of the wetlands and the condition of the replacement wetlands. See, e.g., Environmental Law Institute, Wetland Mitigation Banking 92-94 (1993) ("ELI Report"). The Mitigation MOU advises that compensatory mitigation ratios should include "an adequate margin of safety to reflect the expected degree of success of the mitigation plan." Appropriate compensation ratios should reflect the uncertainty that compensation wetlands can provide adequate replacement for the natural wetlands being lost and the functional immaturity of the replacement wetlands. See ELI Report at 92-93. The ELI Report concluded, "The inability of any system to assure complete function-for-function replacement of any converted wetland leads inexorably to the conclusion that credit ratios should always be greater than 1:1." Id. at 157. Of the wetland types identified by the Corps, the only non-coastal or non-estuarine wetlands for which restoration, enhancement *or* creation has achieved a high level of success are midwestern palustrine emergent and open water wetlands. Id. (citing Institute for Water Resources, Summary of Experience of Restoration, Creation, and Enhancement of Wetlands in the United States (1992) (unpublished summary chart)). In this case, the Port has selected the

least favored method of compensatory mitigation—off-site and out-of-watershed wetland creation—for wetland types not conducive to successful creation. Yet, the Port proposes *at most* 1:1 to 2:1 replacement in its Revised Mitigation Plan.

Not only does the Port's Revised Mitigation Plan provide insufficient mitigation acreage, but the Port acknowledges that it also *underestimates* the acreage of affected wetlands. The Port Permit Application estimates the area of impacted wetlands as 12.13 acres and admits: "This is an estimate. Most wetlands have been delineated. However, some wetlands are on private property and have not been delineated due to lack of access." In response to comments on this issue, the Port wrote, "it is presumed that the U.S. Army Corps of Engineers will establish a process for the Port to identify and mitigate wetlands located on newly acquired property as part of the permit approval process." Final SEIS at F-131. Yet, the Notice issued by the Corps underestimates the acreage affected by the the Sea-Tac Expansion even further—at 11.42 acres.

The Port's failure to (1) give meaningful consideration to on-site or same-water shed compensatory mitigation; (2) propose mitigation ratios that reflect the uncertainty of success of its proposed wetlands creation; or (3) provide accurate estimations of affected wetland areas and functions has resulted in a mitigation plan that does not provide appropriate and practicable steps to minimize potential adverse impacts to wetland resources. For this reason, the Corps regulations prohibit issuance of the Port Permit.

IV. The Corps May Not Grant the Port Permit Because the Fill of Wetlands Authorized by the Permit Would Cause or Contribute to a Significant Degradation of the Waters of the United States.

The Guidelines prohibit the Corps from issuing a permit where the discharge of fill material "will cause or contribute to significant degradation of the waters of the United States."

40 C.F.R. § 230.10(c).[6] The Port Permit Application recognizes that the Sea-Tac Expansion would cause and contribute to degradation of streams and wetlands in the project site:

> Potential construction impacts to streams and fisheries resources relate to short term increases in total suspended solids (TSS) from erosion and sedimentation and temporary loss of habitat due to stream relocation. Contaminants such as heavy metals and oil and grease from construction machinery tend to cling to sediments. The primary mechanism for delivery of sediment from the construction sites to the streams is in stormwater runoff as suspended solids. . . .
>
> Operational impacts associated with the Master Plan Update Improvements are related to increased stormwater runoff due to the increase in impervious surfaces. Additional stormwater runoff will potentially increase the rate and duration of flows within the stream channels after storms. . . .minor increases in heavy metals and oil and grease are likely to reach Miller and Des Moines Creeks. Stormwater runoff may also contain glycols and urea (used as de-icers in the winter).

As the ACC has commented previously, because of cumulative effects of past projects, these impacts are enough to result in a significant degradation of the Miller and Des Moines Creek drainages. A high proportion of wetlands habitat that existed in the Miller and Des

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[6] A discharge will cause or contribute to significant degradation of the waters of the United States if, individually or collectively, it has significant adverse effects on:

- human health or welfare, including but not limited to effects on municipal water supplies, plankton, fish, shellfish, wildlife, and special aquatic sites (which include wetlands);
- life stages of aquatic life and other wildlife dependent on the aquatic ecosystems, including the transfer, concentration, and spread of pollutants or their byproducts outside of the disposal site through biological, physical, and chemical processes;
- aquatic system diversity, productivity, and stability, including, but not limited to, loss of fish and wildlife habitat or loss of the capacity of a wetland to assimilate nutrients, purify water, or reduce wave energy; or
- recreational, aesthetic, and economic values.

40 C.F.R. § 230.10(c)(1)-(4). To demonstrate that there is no significant degradation, the Guidelines require appropriate testing, factual determinations, and evaluations of the potential impacts on the physical, chemical, biological, and human use characteristics of the aquatic ecosystem. See id. § 230.11.

Moines watersheds 20 to 50 years ago have been filled by the Port and by commercial and residential construction. Further loss of wetlands in the Miller and Des Moines Creek drainages would only add to degradation of water quality and changes to stormwater runoff regimes. These conditions would contribute to existing downstream erosion/mass wasting problems in both drainages.

Further, mitigation measures noted by Port are likely to be inadequate to control potential degradation of aquatic resources from sedimentation. The Port Permit Application describes BMPs, including erosion and sediment control measures, such as mulching, silt fencing, sediment basins and check dams as measures to control sedimentation of Miller and Des Moines Creeks. Normally, however, BMPs such as these are not completely effective. Uncontrolled construction site sediment loads have been reported to be in the range of 35 to 45 tons per acre per year and may be as high as 71 tons per year, see Final EIS at IV.10-13, while BMPs are normally only 60% effective. The potential loading to these Creeks under this scenario would be well over 15,000 tons during a 2.5 year construction period.

In addition, increases in stormwater runoff duration, rates, and volumes may cause flooding, streambank erosion, and loss of habitat as well as damage to water quality. As the Port admits, heavy metals and ethylene glycol (which, in concentrations of 10% or more, has been designated a "dangerous waste" under state law) also have been detected in stormwater runoff. Not uncommonly, 40% of heavy metals in runoff will be in the dissolved form. See Final EIS at IV.10-5. These metals can evade the mitigation devices proposed by the Port, including sedimentation ponds and biofiltration swales, to enter the aquatic environment. Once there, they adversely affect aquatic life through water, plants, and other animals ingested. See id. at IV.10-4. Data in the Washington Department of Ecology's files related to glycols and fecal coliform also indicate that the Port's Stormwater Pollution Prevention Plan and BMPs have been ineffective at controlling discharges of these substances even under current runoff levels. The Final EIS acknowledges that the increase in impervious surfaces resulting from the Sea-Tac Expansion will

result in "increased loadings of organics, metals, fecal coliform, and nutrients" which will lead to acute and chronic effects on aquatic biota. See Final EIS at IV.10-14.

All of these impacts result in significant degradation of the type addressed by the Guidelines. In circumstances such as this where significant degradation of streams, wetlands and their associated habitats is the likely consequence, Corps may not issue the Port Permit.

V. The Corps May Not Issue the Port Permit Because the Fill of Wetlands Authorized by the Permit Would Cause or Contribute to Violations of Applicable State Water Quality Standards.

The Guidelines prohibit the issuance of a permit for discharge of dredged or fill material where it "[c]auses or contributes, after consideration of disposal site dilution, to violations of any applicable State water quality standard." 40 C.F.R. § 230.10(b). Washington has established water quality standards for state surface waters. Chapter 173-201 WAC (1990). These standards include an anti-degradation policy which requires that discharges into a receiving water not further degrade the existing water quality. Of the waters affected by operations at Sea-Tac, Puget Sound has been designated Class AA. WAC 173-201-085(21). Class AA is Washington's most protective classification, and it is intended to protect the highest quality waters. Although Des Moines Creek and Miller Creek are not specifically classified by the state's regulations, under Washington law they are given the water quality classification assigned to the water body into which they flow, that is, the Puget Sound. Consequently, Miller Creek and Des Moines Creek each carry the Puget Sound's classification of Class AA. Id. 173-201-070(6).

As discussed above, the Port acknowledges that both construction and operational impacts to these surface waters would result from fill activities as part of the Sea-Tac Expansion due to "increased impervious surface in the watershed and wetland fill." In fact, these impacts would almost certainly result in violations of state water quality standards. The Port admits that "minor increases in heavy metals and oil and grease are likely to reach Miller and Des Moines

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Creeks. Stormwater runoff may also contain glycols and urea." It also notes that total suspended solids are "expected to increase from 11 to 27 percent in Miller Creek and 14 to 36 percent in Des Moines Creek during and immediately after construction. . . . Following construction, overall increase of sediment inputs into both Miller and Des Moines Creek will increase [sic] up to 4 percent per compared to existing loading." Under the State's anti-degradation policy any discharge such as these which degrades existing water quality would violate the state's anti-degradation policy. The Final EIS acknowledges that, in addition, "increases in loading to these creeks would contribute to violations of Class AA water quality standards for dissolved oxygen, copper, lead, zinc, and ammonia" and would result in acute and chronic affects on aquatic biota. Final EIS at IV.10-14. The State already has determined that the stormwater discharges covered under the Port's recent NPDES application, in particular, show "reasonable potential to violate the state water quality criteria for copper, lead, and zinc." Fact Sheet for NPDES Permit WA-002465-1 at 27; see also ACC's Comments on Proposed NPDES Permit at 24.

In short, there is a substantial likelihood that the fill activities authorized under the Port Permit would cause or contribute to the violation of these and possibly other state water quality standards.[7/] This potential for violation of state water quality standards provides one more reason that, under to the Guidelines, the Corps must deny the Port Permit.

VI. The Corps May Not Issue a Permit for the Sea-Tac Expansion Until It Complies With "Other Federal, State, or Local Requirements."

The Corps regulations provide that: (1) where a required federal, state, and/or local authorization and/or certification has been denied for activities which also require a wetlands permit, the Corps cannot grant the permit; and (2) even where such authorization or certification

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7/ Concurrent with the Corps's Notice of the Port Permit Application, the Washington Department of Ecology ("DOE") issued notice of the Port's application for water quality certification. The ACC has copied its comments on the Port Permit Application to the DOE for consideration during the DOE's water quality certification for the Sea-Tac Expansion. The comments presented in this Part V apply with particular force to that determination by DOE.

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is not required, the Corps must give "due consideration" to the "official views" of appropriate state and local officials as "a reflection of local factors of the public interest." See 33 C.F.R. § 320.4(j)(1). The Port's Revised Mitigation Plan makes no attempt to comply with local wetlands mitigation ordinances and utterly disregards the views of local officials.

As the ACC previously has commented, City ordinances in the neighboring municipalities of Burien, Des Moines, Normandy Park, Tukwila and Sea-Tac all require mitigation either in the same watershed, subwatershed, basin, subbasin or drainage, and some set specific replacement ratios. See ACC, Comments on the Draft EIS at 5.6-4 to -5. In comments on the Draft SEIS, the City of Sea-Tac also pointed out that its city ordinance requires that the location of wetland mitigation/relocation be within the same sub-drainage basin. Sea Tac requested that the SEIS assessment of wetland impacts and mitigation plan be revised to conform with the City requirements. As discussed above, the Port's Revised Mitigation Plan nevertheless has failed to give meaningful consideration to on-site or same-water shed compensatory mitigation. Further, in response to comments on this issue, the Port dismisses local ordinances with the following circular response: "it will not be possible to replace filled wetlands in the same sub-basin as the wetlands to be filled due to sitting [sic] criterion." Final SEIS at F-127.

In considering the Port Permit Application, the Corps's own regulations require that the Corps deny a permit for activities which are not authorized under existing local regulations and give "due consideration" to the views of local officials. Accordingly, the Corps must deny the Port Permit as contrary to the public interest unless these requirements are addressed.

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In conclusion, for the reasons set out above, the ACC respectfully asserts that pursuant to its own regulations, the Corps should decline to issue the Port Permit on grounds that the Port Permit Application fails to comply with (1) the restrictions on discharge set out in the EPA Guidelines and (2) the Corps's own permitting requirements.

Sincerely,

Peter J. Kirsch

cc: John Rankin, Chairman, ACC Executive Committee
Kristin Hanson
Permit Coordination Unit, Washington Department of Ecology
Washington Department of Fish and Wildlife

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ATTACHMENT 1

5.5 THE DEIS FAILS TO ANALYZE ADEQUATELY THE IMPACTS OF MASTER PLAN UPDATE DEVELOPMENT ACTIONS ON WATER QUALITY AND HYDROLOGY IN THE PUGET SOUND REGION

5.5.1 The Requirements of the Federal Clean Water Act Must be Addressed in the DEIS

NEPA and SEPA regulations mandate consideration in the DEIS of the water quality impacts of the proposed expansion of Sea-Tac.[1] Moreover, the DEIS must examine the water quality impacts of the Master Plan Update development actions in the context of the substantive requirements of the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 ("Clean Water Act").[2]

The proposed Master Plan Update development actions would result in the release of pollutants from various sources into Miller Creek, Des Moines Creek, their tributaries, and Puget Sound.[3] Releases of pollutants into these water bodies are comprehensively regulated by the Clean Water Act. Washington also has adopted several comparable statutes for the protection c surface water bodies.[4]

The goal of the Clean Water Act is to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."[5] The ultimate objective of the statute is to eliminate completely the discharge of pollutants into navigable waters.[6] In light of the Clean Water Act's

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[1] See Order 5050.4A ¶ 85f; WAC 197-11-444(1)(c).

[2] 33 U.S.C.A. §§ 1251-1387 (West 1986 & Supp. 1995).

[3] DEIS at IV.10-1, IV.10-7 through IV.10-10.

[4] See, e.g., Chapter 90.48 RCW (Water Pollution Control Act; Chapter 35.67 RCW (Sewage Systems); Chapter 90.70 RCW (Puget Sound Water Quality Authority); Chapter 35.88 RCW (Protection from Water Pollution); RCW 36.70A.060 (Protection of Critical Areas).

[5] 33 U.S.C.A. § 1251(a).

[6] See American Paper Inst. v. Train, 543 F.2d 328, 333 (D.C. Cir. 1976), cert. dismissed, 429 U.S. 967 (1976). See also Quarles Petroleum Co. v. United States., 551 F.2d 1201, 1206 (Ct. Cl. 1977); Quivira Mining Co.

remedial nature, the courts uniformly have given it a broad interpretation.[7]

The Clean Water Act uses two principal devices to establish and enforce standards to abate and control water pollution. First, through the National Pollutant Discharge Elimination System ("NPDES") permit program, the Clean Water Act attempts to quantify maximum "effluent limitations" on the discharge of "pollutant[s][8] into the "navigable waters"[9] from point sources"[10] and from stormwater runoff.[11] Essentially, the Clean Water Act places a limit on the quantity of each pollutant that a pollution source may generate during a period of time. Each

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v. EPA, 765 F.2d 126, 129 (10th Cir. 1985), cert. denied, 474 U.S. 1055 (1986).

[7] See Kennecott Copper Corp. v. EPA, 612 F.2d 1232, 1236 (10th Cir. 1979) ("[I]n construing the [Clean Water Act], 'the guiding star is the intent of Congress to improve and preserve the quality of the Nation's waters. All issues must be viewed in the light of that intent.'" (quoting American Petroleum Inst. v. EPA, 540 F.2d 1023 (10th Cir. 1976), cert. denied, 430 U.S. 922 (1977))).

[8] The Clean Water Act defines the term "pollutant" to mean:

> dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.

33 U.S.C.A. § 1362(6).

[9] The Clean Water Act defines the term "navigable waters" to mean "the waters of the United States." 33 U.S.C.A. § 1362(7). The term has been very liberally construed by the courts to include, for example, rivers, streams, lakes, man-made canals or ditches, dry arroyos, wetlands, swamps, marshes, and sloughs. See, e.g., Avoyelles Sportsmen's League, Inc. v. Marsh, 715 F.2d 897, 923 (5th Cir. 1983); National Wildlife Fed'n v. Gorsuch, 693 F.2d 156 (D.C.Cir. 1982).

[10] The Clean Water Act defines the term "point source" to mean:

> any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, runnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.

33 U.S.C.A. § 1362(14).

[11] EPA regulations define "stormwater" as "storm water runoff, snow melt runoff, and surface runoff and drainage." 40 C.F.R. § 122.26(b)(13) (1994).

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discharger's performance must be measured against strict technology-based "effluent limitations" to which it must conform.[11] It is unlawful for any "person"[12] to "discharge"[13] any "pollutant" without a NPDES permit.[14]

The second means of regulating discharges is the water quality standards program. Under Sections 402 and 301 of the Clean Water Act, the NPDES permitting agency must include in each permit "any more stringent" effluent limitations "necessary" or "required" to meet applicable state-adopted water quality standards.[15] These limitations are in addition to the required technology-based effluent limitations prescribed by the NPDES program. Water quality standards are developed by state governments pursuant to Section 303 of the Clean Water Act.[16] Those standards must protect public health and welfare, enhance the quality of water and "serve the purposes" of the Clean Water Act.[17]

Washington has established water quality standards for state surface waters.[18] Of the

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[12] 33 U.S.C.A. § 1311.

[13] The term "person" means "an individual, corporation, partnership, association, State, municipality, commission, or political subdivision of a State, or any interstate body." Id. § 1362(5).

[14] The term "discharge of a pollutant" is defined, in relevant part, to mean "any addition of any pollutant to navigable waters from any point source." Id. § 1362(12)(A).

[15] Id. § 1311(a).

[16] Id. §§ 1342(a), 1311(b)(1)(C).

[17] Id. § 1313(a).

[18] 33 U.S.C.A. § 1313(c)(2); 40 C.F.R. § 131.2. To "serve the purposes" of the Clean Water Act

> water quality standards should, wherever attainable, provide water quality for the protection and propagation of fish, shellfish and wildlife and for recreation in and on the water and take into consideration their use and value of public water supplies, propagation of fish, shellfish, and wildlife, recreation in and on the water, and agricultural, industrial, and other purposes including navigation.

40 C.F.R. § 131.2.

[19] Chapter 173-201 WAC (1990).

waters affected by operations at Sea-Tac, Puget Sound has been designated Class AA.[19] Class AA is Washington's most protective classification, and it is intended to protect the highest quality waters. Although Des Moines Creek and Miller Creek are not specifically classified by the state's regulations, under Washington law they are given the water quality classification assigned to the water body into which they flow, that is, the Puget Sound. Consequently, Miller Creek and Des Moines Creek each carry the Puget Sound's classification of Class AA.[20]

Section 402 of the Clean Water Act makes the EPA the NPDES permit-issuing authority unless the state has applied for, and received, authority from EPA to administer its own NPDES permit program.[21] Washington, acting through its Department of Ecology ("WDOE"), operates an EPA-approved NPDES permit program,[22] and thus, regulates discharges for Port facilities at Sea-Tac into state water bodies.

The Clean Water Act and EPA regulations also require facilities to apply for stormwater discharge permits for runoff associated with industrial activity.[23] In addition to the Port's stormwater permit for normal Airport operations, the Port also would have to comply with the stormwater permitting requirements for the construction activities involved in the implementation of the Master Plan Update development actions, including the development of comprehensive management practices designed to protect against excessive sedimentation and erosion during construction.[24]

5.5.2 The DEIS Fails to Describe Adequately Water Quality Issues

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[20] WAC 173-201-085(21).

[21] Id. 173-201-070(6).

[22] 33 U.S.C.A. § 1342(a), (b).

[23] See Chapter 90.48 RCW; Chapter 172-220 WAC.

[24] 40 C.F.R. § 122.26(b)(14)(x).

[25] Id. § 122.26(c)(1)(ii).

Associated With Existing Operations at Sea-Tac

The DEIS's description of the existing conditions, construction impacts and future conditions of operations at Sea-Tac is inadequate to make an informed decision on the true impacts of the proposal on water quality.

The existing conditions discussion fails to identify the current fragile condition of Des Moines Creek and Miller Creek. Both creeks suffer from urbanization which has destroyed valuable habitat and degraded water quality. Any development in the watersheds will contribute to the future degradation of the creeks by: 1) reducing low flows; 2) increasing total runoff volume; and 3) providing for an efficient means for pollutants to enter the creek systems.

Much of the water quality mitigation relies on an existing Industrial Waste System (IWS) treatment plant, and perhaps more specifically, the capacity of the existing plant outfall pipe. The capacity of this outfall pipe is already under question and is an integral part of the SASA project proposal mitigation. The DEIS inadequately describes the capacity of the IWS to accept all proposed flow.

Analysis of water quality implications of construction activities is inadequate in the DEIS. Major projects of this nature need project-specific analysis to determine impacts and the effectiveness of the proposed mitigation. The DEIS is grossly deficient in this area. For example, borrow site construction impacts on water quality are not identified. Major excavation from borrow sites could destroy shallow aquifers and impact low flows in the creek systems, and could contribute to erosion and sediment loading in the receiving bodies of water. The sediment loading on the creeks by the dependent third runway proposal could be 15,000 tons or more with the currently proposed mitigation. This type of loading could destroy habitat and may increase the likelihood of additional washouts by altering the course of the streams.

The discussion of construction impacts mitigation also is deficient. To imply that Best Management Practices would be adequate[26] is not acceptable. The scale of the proposal warrants the issuance of a project-specific NPDES. A project-specific NPDES would allow for effluent discharge standards to be set and enforcement capabilities to be put in place.

The DEIS fails to demonstrate that the Airport expansion project's negative impacts would be substantially mitigated. Proper analysis would show the cumulative impacts of the construction and implementation of the Airport expansion could irreparably damage the Miller Creek and Des Moines Creek habitats by adding runoff volume and increasing pollutant loadings. There is no clear analysis of the proposed mitigation of impacts to surface water and ground water in the DEIS. What mitigation is proposed in the DEIS is too generic, and severely understates the potential damage to the environment.

Proper analysis would show the need for a longer construction period, project-specific erosion control which may include surface water treatment, permanent surface water treatment to reduce dissolved pollutants, and a major expansion to the IWS plant, including a new outfall.

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[26] DEIS at IV.10-11.

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5.6 THE DEIS FAILS ADEQUATELY TO EXAMINE IMPACTS TO WETLANDS AND PRESCRIBES INADEQUATE MITIGATION

5.6.1 The FAA Must Comply With Federal Requirements for the Protection of Wetlands

Every federal agency is obligated "to minimize the destruction loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities for . . . providing Federally undertaken, financed, or assisted construction and improvements."[1/] Federal agencies, including the FAA, are prohibited from providing funding or other assistance for the construction of projects in wetlands unless they find "(1) that there is no practicable alternative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use."[2/] Each of the Master Plan Update "With Project" proposed alternatives identified in the DEIS would affect existing wetlands.[3/] "Impacts on these wetlands would include: placement of fill material, dredging, removal of existing vegetation, and changes in hydrologic regimes as a result of increase impervious surface area and stormwater management system restructuring."[4/]

Section 404 of the Clean Water Act requires that anyone proposing to discharge dredged or fill material into navigable waters must first obtain a permit from the U.S. Army Corps of Engineers ("Corps").[5/] "Navigable waters" are defined as "waters of the United States,"[6/] which have been interpreted by the Corps to include "wetlands."[7/]

1/ Exec. Order No. 11,990 § 1(a)(2), 42 Fed. Reg. 26, 961 (1977), amended byExec. Order No. 12,608, 52 Fed. Reg. 34,617 (1987), reprinted in, 42 U.S.C.A. § 4321 (West 1995).

2/ Id.

3/ DEIS at IV.11-1.

4/ Id.

5/ 33 U.S.C.A. § 1344(a).

6/ Id. § 1362(7).

7/ This interpretation was upheld by the Supreme Court as consistent with the broad statutory grant of authority to the Corps to regulate "waters of the United States." United States v. Riverside Bayview Homes, Inc., 476 U.S. 121, 131 (1985). See also United States v. Akers, 785 F.2d 814, 818 (9th Cir.), cert. denied, 479 U.S. 828 (1986).

Since construction of the proposed third runway and associated Master Plan Update development actions would affect wetlands, these projects could not be undertaken unless the FAA has affirmatively determined

- that there is no practicable alternative to such construction; and
- that the proposed action includes all practicable measures to minimize harm to wetlands which may result.[8]

The DEIS is required to contain a discussion of the basis for any such findings, along with a discussion of the various alternatives which have been considered.[9] As discussed in detail elsewhere in these Comments,[10] the DEIS fails to consider a reasonable range of alternatives which would satisfy the Port's purpose and need for the proposed Airport expansion project. The DEIS, therefore, cannot legally serve as the basis for a determination that there is no practicable alternative to the use of wetlands. In particular, the failure to consider alternatives which would reduce or eliminate the use of fill would prevent the FAA from making a legally sufficient finding.

If a legally sufficient finding were to be made, the Port would then be required to obtain a permit pursuant to Section 404 of the Clean Water Act[11] in order to dredge or fill the affected wetlands.[12] Corps regulations state that "a permit will be granted unless the district engineer determines that it would be contrary to the public interest."[13] The public interest review requires the Corps' District Engineer to evaluate all probable impacts of the proposed activity, including cumulative impacts. The factors to be considered include:

> conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs

8/ Order 5050.4A ¶¶ 47e(11)(b)2, 83e.

9/ Id. ¶ 85.

10/ See supra § 4.1.

11/ 33 U.S.C.A. § 1344.

12/ Id.

13/ 33 C.F.R. § 320.4(a)(1) (1994).

and welfare of the people.[14]

Other factors to be considered include the need for the project, the practicability of using other alternatives and the extent of permanent damage to the environment from the project.[15]

In addition to complying with Corps regulations, the District Engineer must apply EPA standards for issuance of a wetlands permit.[16] Notwithstanding Corps administrative control over the application process, EPA may veto any permit approved by the Corps if the project "will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas."[17]

EPA's veto authority particularly is important in the context of its ability to demand an evaluation of alternatives to the issuance of a wetlands permit. EPA regulations prohibit the issuance of a wetlands permit if there exists a "practicable" alternative to the proposal.[18] "An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes."[19] EPA Guidelines[20] also require that where non-water dependent activities are involved (e.g., an airport) the Corps must determine whether a "practicable" alternative site exists which would cause less environmental harm to wetlands.[21] The Guidelines further provide that, if a project is not water dependent, practicable alternatives are 1) "presumed to be available;" and 2) presumed to have less adverse impact on the aquatic ecosystem.[22]

5.6.2 The Port Must Comply With State and Local Wetlands Protection Measures

14/ Id.

15/ Id.

16/ 40 C.F.R. § 230.10

17/ 33 U.S.C.A. § 1344(c).

18/ 40 C.F.R. § 230.10(a).

19/ Id. § 230.10(a)(2).

20/ Id. pt. 230 (Guidelines for Specification of Disposal Sites for Dredged or Fill Material).

21/ Id. § 230.10(a).

22/ Id. § 230,10(a)(3) (emphasis added).

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In addition to complying with federal permitting requirements, the Port also will have to obtain a wetlands permit from the Washington State Department of Ecology ("WDOE") and the Washington Department of Fisheries and Wildlife. GMA provides supplemental protection to wetlands by requiring cities and counties to designate critical areas -- including wetlands -- and to issue development regulations to protect these designated areas.[23] The GMA requires cities and counties to exercise control over changes in land uses, new activities, or development that potentially could adversely affect critical areas. The GMA also requires cities and counties to prohibit clearly inappropriate activities, and restrict, allow or condition other activities, as appropriate.[24]

The cities of Normandy Park and Des Moines have adopted ordinances dealing with environmentally sensitive areas which regulate and restrict development activities.[25] Each of these ordinances includes wetlands in the definition of environmentally sensitive areas.[26] Both cities restrict development in areas where "significant and important wetlands and their buffers" are located.[27] The cities also require that where development is allowed, buffers of 100 feet and 35 feet must be maintained for significant and important wetlands, respectively.[28] The cities also regulate wetlands mitigation activities, specifying the replacement ratio and the replacement location.[29] A similar regulatory regime is found in Tukwila's Sensitive Areas Overlay Zone.[30]

TABLE 5.6-1 sets forth the requirements adopted by the ACC cities and the City of

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23/ RCW 36.70A.170, .060(1); WAC 365-190-040.

24/ WAC 365-190-020.

25/ See Normandy Park, Wash., Mun. Code ("NPMC") ch. 13.16; Des Moines, Wash., Mun. Code ("DMMC") ch. 18.86.

26/ NPMC 13.16.030(14); DMMC 18.86.252.

27/ NPMC 13.16.060(a)(1); DMMC 18.86.060(a). Significant and important wetlands are defined in the NPMC 13.16.030(52)(A), (B) and in the DMMC 1.04.663(1), (2).

28/ NPMC 13.16.070(a)(2)(A), (B); DMMC 18.86.070(2)(A), (B).

29/ For example, Des Moines adopted a goal of no net loss of wetlands within a particular drainage basin and requires 1:1 replacement or enhancement/restoration. DMMC § 18.86.107. Normandy Park adopted a goal of no net loss of wetlands within a particular drainage basin. NPMC § 13.16.120.10.(B).(ii). The City of SeaTac has adopted a goal of no net loss of wetlands within a sub-basin and requires a 2:1 replacement ratio for Class 1 and 2 wetlands and a 1:1 replacement ratio for Class 3 wetlands. City of SeaTac, WA., Mun. Code § 15.30.320F.

30/ Tukwila, WA., Mun. Code Chapter § 18.45.089(c)(2)(ii).

SeaTac with which the Port will have to comply.

TABLE 5.6-1

Requirements for Wetlands Mitigation

City	Wetlands Types	Buffers (Feet)	Required Location of Mitigation
Burien	Class 1,2,3	100, 50, 25	Section 480F. "...that the off site location is in the same drainage sub-basin as the original wetland..."
Des Moines	Significant, Important	100, 35	18.86.107 "...if the compensation project is within the same subwatershed as the wetlands or stream to be altered..."
Normandy Park	Significant, Important	100, 35	13.16.120.10.(B).(ii) "...if the compensation project is in the same sub-watershed within Normandy Park city limits as the wetlands to be altered."
Tukwila	Type 1, 2, 3	100, 50, 25	18.45.089(c)(2)(ii) "Off-site compensation shall occur within the same watershed where the wetlands loss occurred."
SeaTac	Class I, II, III	100, 50, 35	15.30.320F. "...that the off-site location is in the same drainage sub-basin as the original wetland..."

Because the local wetlands requirements would affect the Port's proposed Airport expansion plans, the DEIS must discuss how the Port proposes to address those wetlands requirements.

5.6.3 The DEIS Fails Adequately to Examine Impacts on Wetlands and to Prescribe Appropriate Mitigation

The biological components sections of the DEIS contain insufficient analyses to support assumptions relative to either wetlands mitigation or potential impacts to federal and state-listed wildlife species. The wetlands section provides data that is inconsistent with original wetlands delineation reports and lacks any discussion of why the initial premise of the FAA Draft Advisory Circular 150/5200, Wildlife Attractants on or Near Airports ("Advisory Circular 150/5200") was bypassed. Without additional studies and more accurate data, the analyses provided in the DEIS cannot be relied on by a responsible official evaluating the proposed Airport expansion project.

The DEIS does not explain the rationale behind assumptions and decisions made relative to Advisory Circular 150/5200. Wetlands are considered major attractants to wildlife species that are assumed to be safety hazards to airport operations. The DEIS does not discuss how the existing wetlands habitat conditions effect past, ongoing or future Airport operations. There are currently 102 acres of wetlands habitat, including open water, that will remain within 4,000 feet or less of existing runways and the proposed third runway location. Strict adherence to the Draft Advisory Circular would preclude development of additional facilities at any location within 10,000 feet of existing wildlife attractants.

Ordinances enacted by Des Moines and the City of SeaTac regulating wetlands habitat modification require there be no net loss within the drainage basin of impact.[1/] In place of the DEIS's proposed 26.5-acre wetlands mitigation in the Kent Valley, creation of 19.2 acres of palustrine forested, scrub/shrub and emergent wetlands would be required if mitigation was performed under affected city jurisdictions. The assumption that insufficient land to perform wetlands mitigation is available within the drainage of impact completely overlooks availability of over 400 acres of undeveloped land within the project boundary. The DEIS particularly overlooks Borrow Areas 1, 2, 3 and 5 for which reclamation plans, if they exist, are not disclosed in the DEIS. Use of Borrow Areas 1, 2 or 3 for wetlands mitigation would place mitigation sites 6,000 to 8,000 feet away from the planned new runway. This would be a distance factor of two to five times further away than existing wetlands habitats.

A second unsupported assumption is that wetlands mitigation in the drainage or subbasin of impact cannot be accomplished without creating additional wildlife hazards. The FAA already has approved a SASA at Sea-Tac which includes on-site mitigation.[1/] The DEIS fails even to

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[1/] See supra § 5.6.2.

[2/] See Fed., Aviation Admin., U.S. Dep't of Transp. Northwest Mountain Region, Record of Decision for the

acknowledge the FAA's Record of Decision for the SASA project. The approved SASA mitigation plan commits to relocate Des Moines Creek and create forested and scrub/shrub wetlands within 1,000 feet of Runway 34R.[1/]

The discussion of wetlands in the DEIS is a tangled mass of inconsistent statements:

- The total acreage values presented do not agree with summation values provided for the 54 wetlands in the Table IV.11-1 in the DEIS.[1/] The DEIS states that 9.7 acres of wetlands would be lost,[1/] but data presented in DEIS tables and appendices and original wetlands delineation reports indicate this value is closer to 10.7 acres.[1/]

South Aviation Support Area, Sea-Tac International Airport at 8-9 (Sept. 13, 1994)

[33/] Id. at 11.

[34/] DEIS at IV.11-6A, Table IV.11-1.

[35/] See id. at IV.11-1. See also Port of Seattle, South Aviation Support Area ("SASA") Final Environmental Impact Statement at 4-152.

[36/] Id. at IV.11-6A, Table IV.11-1. See generally id., app. H.

- Acreage on 19 of 32 wetlands described by the Port's consultant as delineated wetlands have different values presented in the DEIS[37] than are provided in the individual descriptions found in the Jurisdictional Wetlands Delineation Report.[38]

- One map in the DEIS shows that there would be no impact to Wetland 3 in Borrow Area 8 but that Wetland 27 would be filled,[39] while a table indicates that Wetland 3 is to be filled and Wetland 27 would be unaffected.[40]

In addition to contradictory data, the intermediate-level wetlands delineations of Wetlands 1 to 32 prepared by consultants to the Port,[41] do not appear to comply with directions in the Corps' manual.[42] Specifically, paired-plot wetlands versus upland analysis was performed at each site. Also, because of a lack of formal land survey, there appears to be no basis for assuming that the wetlands acreage provided in the DEIS are more than rough estimates.

The wetlands mitigation and stream location plans provided as appendices to the DEIS are conceptual in nature.[43] The detail provided in them is inadequate to assess the ability of the plans to mitigate for impacts of the proposed project. Stream relocation and mitigation plans should have explored the removal of downstream barriers to anadramous fish. Monitoring plans outlined for these projects are inadequate to assure successful creation of habitats as complex and long-lived as forested wetlands and riparian zones.

The DEIS's cumulative effects analysis for all wetlands impacts is inadequate pursuant to the requirements of NEPA. There was no analysis of past or foreseeable future impacts to wetlands or threatened and endangered wildlife habitats in a cumulative effects area larger than the proposed project site. At a minimum, the analyses should have evaluated past, present and future expected impacts within the total watershed for both Miller Creek and Des Moines Creek.

37/ Id. at IV.11-6A, Table IV.11-1.

38/ Id., app. H.

39/ DEIS at IV.11-6E, Exhibit IV.11-2.

40/ Id. at IV.11-6A, Table IV.11-1.

41/ See id., app. H.

42/ See Federal Interagency Comm. for Wetland Delineation, Federal Manual for Identifying and Delineating Jurisdictional Wetlands, at 35-39 (1989).

43/ See DEIS, apps. P-A, P-B.

An analysis of wetlands impacts that would satisfy the requirements of NEPA and SEPA would have found that:

- The project violates the FAA Draft Advisory Circular that recommends new facilities not be located in the vicinity of existing wetlands or other wildlife attractants.

- Sufficient land is available such that wetlands mitigation could be located in the drainage of impact as required by local ordinances.

- Wetlands mitigation could be designed that does not create an undue wildlife hazard to airport operations. The lack of a prior history of wildlife hazard problems at Sea-Tac would indicate that existing wildlife habitats do not attract species hazardous to flight operations.

- Due to cumulative effects of past projects, a high proportion of wetlands habitat that existed in the two watersheds 20 to 50 years ago have been filled by Port and by commercial and residential construction. Further loss of wetlands in the Miller and Des Moines Creek drainage basins will add to degradation of water quality and changes to stormwater runoff regimes. These conditions would contribute to existing downstream erosion/mass wasting problems in both drainages.

- An alternative that would have no impacts on wetlands exists, and legally it must be selected pursuant to section 404[1/] and EPA regulations.[1/]

[1/] 33 U.S.C.A. § 1344(a).

[1/] 40 C.F.R. § 230.10(a).

City	Wetland Types	Buffers (Feet)	Required Location of Mitigation
Burien	Class 1,2,3	100, 50, 25	Section 480F. "...that the off site location is in the same drainage sub-basin as the original wetland..."
Des Moines	Significant, Important	100, 35	18.86.107 "...if the compensation project is within the same subwatershed as the wetland or stream to be altered..."
Normandy Park	Significant, Important	100, 35	13.16.120 9.A.(ii) "...if the compensation project is in the same sub-watershed within Normandy Park city limits as the wetland to be altered."
Tukwila	Type 1, 2, 3	100, 50, 25	18.45.089(c)(2)(ii) "Off-site compensation shall occur within the same watershed where the wetland loss occurred."
SeaTac	Class I, II, III	100, 50, 35	15.30.320F. "...that the off-site location is in the same drainage sub-basin as the original wetland..."

ATTACHMENT 2

there is only a cursory discussion of these impacts. There has been no examination of the time-above noise levels to which these schools would be subjected, and no commitment to mitigate the effects of Airport noise, beyond what the Port has already committed to do to mitigate the effects of the second runway.

4.4 THE PROPOSED MITIGATION OF WETLANDS IMPACTS REMAINS INADEQUATE

The DSEIS identifies an additional two acres of wetland impacts, resulting in "unavoidable" impacts to a total of 12.23 acres of wetlands under the Preferred Alternative.[46] The DSEIS also notes that additional wetlands may be identified when access is made available to all of the property in the acquisition area.[47] The Port and the FAA recognize the need to mitigate the loss of these wetlands, but continue to ignore any mitigation options which would create replacement wetlands within the same drainage basin as those which will be destroyed.[48]

The DSEIS states that "[a]ll undeveloped, non-forested, non-wetland sites with average slopes less than 5% were identified" in both the Miller Creek and Des Moines Creek basins.[49] The DSEIS presents no explanation for why these limiting conditions were imposed. There is no substantiation for the assertion that only non-forested sites

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[46] DSEIS at 1-11.

[47] DSEIS at 5-5-2, n.1.

[48] DSEIS at 1-11, 5-5-13. In Washington, the first choice for wetland replacement is on-site; the secondary preference is off-site, but within the same watershed. DSEIS at 5-5-12. Likewise, ordinances adopted by the cities of SeaTac, Burien, Des Moines, Federal Way, Normandy Park and Tukwila all require wetlands mitigation within the same watershed or drainage basin. See DEIS Comments, Table 5.6-1.

[49] DSEIS at 5-5-13.

would be suitable for replacement wetlands – indeed, many of the wetlands which would be destroyed by this project are forested.[50] The DSEIS does not define what is meant by "undeveloped," but if this condition were applied to areas with low-density development, the search may have excluded many potentially suitable sites. Similarly, defining eligible sites as those with average slopes less than 5 percent appears to be an unjustified restriction.

The Port apparently confined its in-depth consideration of suitable in-basin mitigation sites to areas within the 10,000-foot radius of concern for wildlife hazards to aircraft,[51] conveniently allowing it to dismiss each of the 19 potential sites identified in its search as infeasible for "safety" reasons.[52] The DSEIS' assertion that "[w]etland mitigation... within the watersheds where the impacts may occur, is not feasible" remains unsupported by evidence in the record.

4.5 CONSTRUCTION IMPACTS CONTINUE TO BE UNDERESTIMATED

The Port has revised its estimates of construction impacts since issuing the FEIS, without managing to provide any better understanding of how more than 26.4 million

[50] DSEIS, Table 5-5-1 at 5-5-4.

[51] DSEIS at 5-5-13. The FAA discourages airports from creating areas which might attract birds, which in turn can create hazards for aircraft using the airport. DSEIS at 5-5-16. In furtherance of this policy, the FAA "has indicated that 'wildlife attractions' within 10,000 feet of the edge of any active runway is not recommended." DSEIS at 1-11.

[52] DSEIS, Table 5-5-3 at 5-5-25 to 5-5-28.

plans or to make the Port's Master Plan Update consistent with those comprehensive plans.[96]

4.9 THE DRAFT SEIS DISREGARDS IMPACTS ON SURFACE AND GROUNDWATER RESOURCES

The DSEIS concedes that implementation of the development actions included in the Master Plan Update would increase the amount of impervious surfaces, increase stormwater runoff flow rates and volumes and increase pollutant loading.[97] Notwithstanding their serious nature, the document includes no more than a cursory mention of these impacts and includes only a vague reference to mitigation which it is alleged "would prevent significant pollution or degradation of surface and groundwater resources.[98] The entire subject is covered in only three brief paragraphs.

State government agencies and the public frequently have expressed concern about contamination of public drinking water wells and Miller and Des Moines Creeks due to Airport operations. Recently, the Washington Department of Ecology required the Port to undertake a major study of groundwater impacts of the proposed Airport expansion.[99] Nowhere in the DSEIS is there any mention of this study or of any plans for mitigating problems which the study might bring to light. The DSEIS also neglects to consider the impact of an increased number of aircraft operations on potential contamination of runoff with jet fuel, and de-icing fluids and other hazardous substances.

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[96] See WAC 197-11-444(2)(b). 365-195-340(2)(B)(iv), -770(2).

[97] DSEIS at 5-7-4.

[98] DSEIS at 5-7-4.

[99] Port OKs $1.1M for Water Study, Des Moines News, Mar. 19, 1997 at A2.

Although the ACC and other citizen groups previously have raised questions about the effect that the creation of a substantially larger impervious area would have on both water quantity and water quality in Miller and Des Moines Creeks,[100] the Port continues to give only general and insubstantial responses and provides no detailed plans for safeguarding the water resources in the region. Given the Port's past failure to adequately maintain its Industrial Wastewater System,[101] it is incumbent upon the Port – and its partner in the environmental review process, the FAA – to undertake a *bona fide* examination of the impacts of airport expansion on ground and surface water resources, to disclose the results of such an investigation and to provide a detailed plan of how it intends to mitigate the unavoidable negative effects.

[100] DEIS Comments at 5.5-5 to 5.5-6.

[101] The Port recently settled a lawsuit with a local citizens' group by admitting that it had not lived up to the requirements of the federal Clean Water Act and had failed to adequately monitor the discharge of polluted water into streams that empty into the Puget Sound.

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ATTACHMENT 3

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December 9, 1997

VIA OVERNIGHT MAIL

Ms. Carla Skog
Water Quality Permit Coordinator
Department of Ecology
Northwest Regional Office
3190 160th Ave. S.E.
Bellevue, Washington 98008-5452

Re: Comments on Proposed NPDES Permit

Dear Ms. Skog:

On behalf of our clients, the cities of Burien, Des Moines, Federal Way, Normandy Park, and Tukwila, Washington, and the Highline School District, individually, and collectively as the Airport Communities Coalition, we submit these comments concerning the draft National Pollutant Discharge Elimination System ("NPDES") Waste Discharge Permit No. WA-002465-1, to expire June 30, 2002 (the "Draft Permit"), which the Washington Department of Ecology ("Ecology") has proposed for issuance to the Port of Seattle (the "Port") in connection with certain discharges and activities associated with the operation of the Seattle-Tacoma International Airport (the "Airport"), and concerning the accompanying Fact Sheet for NPDES Permit WA-002465-1 (the "Fact Sheet"). Ecology proposes to issue the Draft Permit as authorized by the Federal Water Pollution Control Act (the "Clean Water Act" or "CWA"), 33 U.S.C. §§ 1251 - 1387, and the Washington Water Pollution Control Law ("WPCL"), Chapter 90.48 Revised Code of Washington.

The Draft Permit and Fact Sheet are replete with serious deficiencies, as discussed below, which individually and collectively mandate that Ecology revise and reissue both documents in draft for public comment, in compliance with the Clean Water Act and WPCL. As Ecology is aware, the Airport for years has been plagued with significant Clean Water Act/WPCL compliance issues, issues that have been subject to a seemingly interminable series of studies the Port, but never resolved. If the Draft Permit were issued in its current form, Ecology wou

perpetuate the past practice of addressing these issues in a piecemeal manner, often without the benefit of public scrutiny and comment. The issuance of the Draft Permit as currently written is unacceptable under the Clean Water Act and WPCL.

The citizens of the jurisdictions on whose behalf these comments are submitted are adversely affected by discharges of hazardous substances, pollutants, and contaminants from the Airport into the environment. Pursuant to the Clean Water Act and WPCL, we request that Ecology revise the Draft Permit and Fact Sheet to address the deficiencies identified below, and reissue both documents in draft for public comment.

COMMENTS

SPECIAL CONDITIONS

A. Discharge Limitations.

1. S1A and 1B – Interim and Final Effluent Limitations for Industrial Wastewater

Special Conditions 1A and 1B of the Draft Permit establish interim and final effluent limitations for industrial wastewater discharged from the Port's Industrial Wastewater System ("IWS"). "Industrial wastewater" is defined as follows:

> Industrial wastewater is water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater, non-contact cooling water, or stormwater that is not commingled with process wastewater. Industrial wastewater may result from any process or activity of industry, manufacture, trade or business, and includes, but is not limited to: water used for industrial processes such as pipe integrity pressure testing and vehicle and aircraft wash water; stormwater contaminated with fuel, oil, fire foam, cleaning agents and deicing/anti-icing agents; contaminated construction dewatering waters; excess water from ground water well construction and monitoring; and leachate from solid waste facilities. *Industrial wastewater does not include stormwater runoff that contains minor amounts of deicing/anti-icing agents that shear from aircraft.*

Draft Permit at 8 (emphasis added).

Thus, although the above definition states that industrial water *includes* "stormwater contaminated with . . . deicing/anti-icing agents," it exempts from this classification, without explanation, stormwater runoff that contains "minor amounts of deicing/anti-icing agents that shear from aircraft." The application of deicing/anti-icing agents is an industrial activity conducted at the Airport with regular, seasonal frequency. Such agents that shear from aircraft constitute industrial process waste or wastewater. When such waste comes in contact with

waters of the State, industrial wastewater unquestionably has been discharged. The exclusion of this category of contaminated stormwater from industrial wastewater is unsupported by any explanation, either in the Draft Permit or in the Fact Sheet. The Fact Sheet uses the same definition of "industrial wastewater" on page 6.

Moreover, the Port's existing NPDES waste discharge permit (the "Existing Permit") defines industrial wastewater as "water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. *The term includes contaminated storm water and, also, leachate from solid waste facilities.*" Existing Permit at 10 (emphasis added). The Existing Permit includes *all* contaminated stormwater in industrial wastewater. Accordingly, the definition of industrial wastewater in the Draft Permit appears to constitute backsliding – a practice expressly prohibited under the Clean Water Act and WPCL.

Further, nowhere in the Draft Permit or Fact sheet does Ecology explain the basis for its determination that the amount of deicing/anti-icing agents that shear from aircraft is "minor." Similarly, no data, analysis, or explanation is provided concerning how that amount is expected to change over the proposed permit term in the event that the number of flight operations at the Airport changes. All documents, data, and analyses relied upon by Ecology in making these determinations must be made available to the public as part of the administrative record.

The Draft Permit fails to include glycol among the pollutants for which interim and final effluent limitations are established, nor does the Draft Permit require elimination of the discharge of glycols. The Fact Sheet provides an explanation in this regard that is wholly unsatisfactory. The Fact Sheet states on page 10 that waste containing more than ten percent ethylene glycol is generally considered a "dangerous waste" in Washington State, but that Ecology "has certified that waste aircraft deicing fluids containing ethylene glycol generated at [the] Airport are not dangerous wastes." The Fact Sheet does not explain the basis for this certification, nor does it provide a clear, understandable explanation for why the effluent limitations include Biochemical Oxygen Demand ("BOD_5") rather than limiting glycol concentration directly.

Ecology must modify the Draft Permit to provide complete, detailed explanations for the basis for its certification concerning deicing fluids at the Airport, and for its decision to regulate BOD_5 rather than glycol.

Footnote e to Special Condition 1B states that Ecology will establish final effluent limitations after approval of the engineering report required in Special Condition 4, which is intended to provide the information necessary to finally determine All Known, Available, and Reasonable Methods of Prevention and Treatment ("AKART") for the IWS. We object strongly to Ecology's failure to establish AKART in a timely fashion for the IWS.

2. S1C – Mixing Zone

Special Condition 1C states that "[t]he boundaries of the mixing zone for Outfall 001 shall be defined by [Ecology] through a major permit modification after the AKART determination . . ." This statement implies that the Port *will* be allowed to use a mixing zone in connection with Outfall 001, although under state law, a mixing zone may not be authorized unless the facility is operating under technology-based controls that satisfy AKART. See Chapter 173-201 WAC. The Fact Sheet states on page 26 that the Port has conducted a mixing zone study and proposed dilution factors have been determined, to be recalculated if necessary when AKART is fully determined.

Ecology must explain the basis for its decision to make a determination *before* AKART is determined for the IWS, and thus well before the Port is *operating* under controls that satisfy AKART, that a mixing zone is appropriate for the IWS. In addition, Ecology must address the status of current discharges from Outfall 001 during the period in which a mixing zone is not legally authorized. Ecology must modify the Draft Permit to ensure that as long as the Port is not meeting the requirements to qualify for a mixing zone, all discharges from Outfall 001 must satisfy water quality criteria applicable to Puget Sound *without* a mixing zone.

This condition also states that the size of the mixing zone will be established through a major permit modification. It is unclear from the terms of the Draft Permit and the corresponding discussion in the Fact Sheet whether permitted discharge limitations that necessarily can be derived only once the mixing zone is defined (e.g., dilution factors) also will be subject to public scrutiny and comment via a major permit modification. This issue should be addressed expressly in all relevant sections of the Draft Permit and Fact Sheet.

Ecology also must modify the Draft Permit to clarify how Ecology intends to address the mixed discharge from the Port and the Midway Sewer District if a mixing zone is established.

3. S1E – Stormwater Drainage System

The first sentence of this condition states that discharge of industrial wastewater to the stormwater drainage system is prohibited. The last sentence, however, exempts overflows from the IWS system attributable to stormwater flows in excess of the design criteria. Under this provision, if stormwater flows exceed the design criteria for any reason, including those which are the fault of the permittee, the discharge is an authorized bypass and therefore exempt from the treatment requirement normally associated with industrial wastewater. This exemption sharply reduces the Port's incentive to minimize releases and make every possible effort to reduce discharges. The provision also fails to implement what we understand to be AKART for the IWS lagoons, which would include covering the lagoons to prevent uncontaminated stormwater intrusion. Moreover, the Existing Permit does not include this exemption. As a result, the exemption provided in this condition constitutes backsliding, as well as a violation of Washington State's anti-degradation policy.

Ecology must modify the Draft Permit to enforce appropriate controls on the discharge of industrial wastewater to the stormwater drainage system.

4. S1F – Ground Water Discharges

The ground water discharge-related provisions of the Draft Permit and Fact Sheet are wholly deficient and must be revised and reissued for public comment. The Draft Permit "prohibit[s]" the "[i]ntentional discharge of industrial wastewater to ground water . . . " By contrast, the Draft Permit expressly provides that "[d]ischarge of stormwater to ground water *is permitted*." Thus, it appears that while the Draft Permit purports to authorize certain discharges to ground water, nowhere is the Draft Permit properly denominated a state waste discharge permit, subject to the standards and public participation requirements associated therewith.

Further, while the Draft Permit expressly prohibits the discharge of industrial wastewater to ground water, the Draft Permit and Fact Sheet elsewhere concede that industrial wastewater from the IWS conveyance system and contaminated stormwater discharge to Lagoon 3. Lagoon 3 has by far the largest capacity of the three lagoons located at the industrial wastewater treatment plant ("IWTP") (20.2 million gallons as compared to 1.6 million and 3.3 million gallons respectively). Incredibly, the Fact Sheet blithely observes that "Lagoon 3 has not yet been lined, but will be lined in the next few years." Fact Sheet at Page 31.

The Ground Water Quality Standards set forth at Chapter 173-200 WAC (the "Ground Water Quality Standards") regulate all activities that have a *potential* to degrade ground water quality, including both point source and nonpoint source activities. Whether or not the person or entity with control over such an activity *intends* to affect ground water quality is irrelevant. A discharging facility under the Ground Water Quality Standards is one that cannot contain completely all the wastewater generated by its operation. The Fact Sheet concedes that "[t]here are two systems that could potentially contaminate ground water . . . (1) the IWS collection and treatment system, and (2) the underground fuel storage tanks (USTs) and fuel distribution systems." Fact Sheet at Page 31. With respect to NPDES permits, Ecology has noted that "[i]f there is also a discharge that impacts ground water, then the requirements of a state waste discharge permit must also be incorporated into the NPDES permit." Ecology, "Implementation Guidance for the Ground Water Quality Standards" (April 1996) at Page 4. Clearly, the Airport contains numerous facilities/activities which have the potential to degrade ground water quality as defined by the Ground Water Quality Standards.

It is imperative that Ecology revise and reissue the Draft Permit properly denominated also as a state waste discharge permit, as well as comprehensively revise both the Draft Permit and the Fact Sheet to address fundamental ground water quality-related issues of concern to the public:

- Specifically, what activities/facilities at the Airport have the potential to degrade ground water quality?

- Is the Draft Permit a state waste discharge permit? If not, why not (with reference to the specific activities/facilities at the Airport that have the potential to degrade ground water quality as defined by the Ground Water Quality Standards)?
- Precisely what is the regulatory/permitting status of each such activity/facility with reference to the applicability of the Ground Water Quality Standards and associated permitting requirements?
- If a particular activity/facility at the Airport is exempt from application of the Ground Water Quality Standards and associated permitting requirements, explain the scope of such exemption. Specifically, what ground water discharge monitoring and effluent limits (including schedule) are applicable to such activity/facility in light of such exemption?
- What ground water resources are affected by activities/facilities at the Airport?
- What is the ambient ground water quality of such ground water resources?
- What existing and future beneficial uses are applicable to such ground water resources?
- Specifically, what monitoring and enforcement limits are applicable to each such activity/facility to protect such beneficial uses and comply with the State's antidegradation policy?

In sum, the ground water-related provisions of the Draft Permit and Fact Sheet are woefully inadequate in numerous fundamental respects. Ecology must revise these provisions in a comprehensive and expeditious manner to ensure compliance with the WPCL.

5. S1G – Construction Related Discharges

Ecology must modify this section to state that the Draft Permit authorizes only those discharges that are in full compliance with the Stormwater Pollution Prevent Plan ("SWPPP") adopted for construction related activities.

B. Monitoring Requirements

6. S2A – Industrial Wastewater

Special Condition 2A of the Draft Permit provides that BOD_5 is to be monitored only when glycol is monitored, i.e., once per month upon notification that aircraft deicing or anti-icing has taken place. This is not appropriate, as there are many other sources of BOD_5, in particular, food handling and food waste operations. BOD_5 should be monitored concurrently in those months that deicing or anti-icing occurs and as part of standard sampling in those months deicing or anti-icing does not occur.

Furthermore, this section lacks a provision for monitoring fecal coliform. Fecal coliform should be monitored and there should be a requirement to analyze the fecal coliform to determine its source. We understand that data of this kind, specific to Des Moines Creek, has been

developed by the King County Water and Land Resource Division. This additional testing requirement is necessary to resolve heretofore unsubstantiated claims by the Port that fecal coliform found at the Airport is the result of bird droppings.

Ecology must modify the Draft Permit to require consistent monthly monitoring of BOD_5, and to add a monitoring requirement and a source analysis testing requirement for fecal coliform.

7. S2B -- Stormwater

The State is required under Section 303(d) of the Clean Water Act to prepare a list every two years containing water body segments not expected to meet state surface water quality standards after implementation of technology-based controls. The list contains the "water quality limited segment(s)" defined in 40 CFR 130.2(j). The State is required to establish a total maximum daily load ("TMDL") for all water body segments on the list. Once a TMDL has been established for a water body segment or watershed and appropriate source loads developed in accordance with CWA requirements, point and nonpoint source controls must be implemented to meet waste load allocations and load allocations, then implemented through the NPDES permitting process.

Nowhere does the Draft Permit or the Fact Sheet adequately address the implications of this issue. Ecology's Draft 1998 303(d) List indicates, for example, that the Puget Sound Receiving Water Segment (ID Number WA-PS-0270) will be listed for ammonia-N and fecal coliform, and that a TMDL is needed. Further, the Draft 1998 303(d) List indicates that the De. Moines Creek Receiving Water Segment was listed in the 1996 303(d) List for fecal coliform, and also requires a TMDL. Finally, the Draft 1998 303(d) List indicates that the ultimate Receiving Water Segment for the City of Sea-Tac Storm Sewer, namely, the Green River (ID Number WA-09-1020), will be listed for dissolved oxygen, fecal coliform, temperature, and mercury, and that a TMDL is needed for each such water quality criterion.

The Draft Permit and the Fact Sheet should be revised to address the CWA 303(d) listing and TMDL development and implementation processes as applicable to discharges from the Airport.

The Draft Permit contains inadequate requirements for the monitoring of stormwater outfalls. The State listed Des Moines Creek in 1996, pursuant to Section 303(d) of theCWA, as water quality limited for fecal coliform. As a result, Ecology must protect Des Moines Creek from fecal coliform contamination. Information on file with Ecology indicates that the Port currently is discharging fecal coliform to Des Moines creek at a level far in excess of the water quality criteria. In this circumstance, quarterly sampling is not protective of waters of the State, because data on fecal coliform would be generated at a rate that would not allow pinpointing and correcting fecal coliform discharges.

For example, the Port's November Discharge Monitoring Reports indicate fecal colif in the chronically contaminated Outfall 002 (basin SDE-4) at >1600 organisms/100 mL. We

understand that no samples have been taken from this outfall in at least the last three months, therefore it is impossible to determine whether the sample reported reflects a short term or long term problem. Because there are no effluent limits for this outfall for fecal coliform, the Port did not and was not required to resample. Outfall 002 will not be sampled again for another three or more months, making it impossible to determine if the fecal coliform source is intermittent or ongoing, or if any attempted corrective action has reduced or eliminated the fecal coliform source in the discharge.

We understand that to date, the only fecal coliform discharges that have been positively identified relate to industrial discharges from the Airport. Accordingly, effluent limits for fecal coliform should be established in the Draft Permit and enforced for discharges to surface waters. While Ecology historically has prescribed Best Management Practices ("BMPs") to address fecal coliform discharges, information in Ecology's files shows that fecal coliform discharges exceeding surface water quality criteria have continued. This indicates that the actions taken by the Port and Ecology have been ineffective. The reduced sampling frequency provided for in the Draft Permit would increase the probability of discharge of fecal coliform levels that violate surface water quality criteria without detection or corrective action.

In the Sea-Tac Airport Responsiveness Summary, prepared by Ecology on August 22, 1996, Ecology responded to a question about stormwater monitoring: "Routine stormwater sampling is meant to assess the need for and the effectiveness of Best Management Practices to prevent the contamination of stormwater by ongoing industrial activities." Responsiveness Summary at Page 8. BMPs to prevent the discharge of glycols into stormwater were implemented at the Airport this summer. We understand that the highest levels of glycol discharge monitored in stormwater at the Airport were monitored last winter. Thus, the last available relevant data shows the highest levels of glycol monitored in the Airport's history, and the BMPs intended to correct this problem were initiated in July, after the last period of relevant data collection. We understand that there is a similar profile for fecal coliform discharges, in that discharges far in excess of water quality criteria have been detected regularly, as indicated in the last available set of Discharge Monitoring Reports. In particular, information in Ecology's files indicates that the outfall that has had chronic fecal coliform discharges known to be caused by Airport industrial activity, Outfall 002 in the SDE-4 drainage basin, has discharged in excess of 1600 organisms/100 milliliters (mL). The applicable criterion defined in Chapter 173-201A WAC, for comparison, is 50 organisms/100mL.

No data is yet available to determine the effectiveness of the BMPs recently implemented, or to show that corrective actions have improved stormwater discharge quality. Under these conditions, it is inappropriate to reduce the frequency of stormwater sampling or require only quarterly sampling. We believe that quarterly samples taken at the Port's discretion will not be adequate to provide the data that Ecology, the public, and the Port need to assess the effectiveness of the recently initiated BMPs.

The Draft Permit would continue to allow degradation of waters of the State with fecal coliform at levels violating the WAC Chapter 173-201A surface water quality criteria for fecal

coliform. The Draft Permit must be modified to require more frequent monitoring at outfalls that have shown glycol or excessive fecal coliform discharges. Such monitoring must be required at a minimum frequency of every month for at least one year or until data demonstrates that the BMPs and corrective actions taken to eliminate fecal coliform, as well as glycols and other pollutants, from stormwater have been effective.

8. S2B(2) – Monitoring Outfalls 004, 010, 014, and 015

The Draft Permit specifies that the outfalls listed above are to be monitored annually. We understand that there have been and continue to be waste disposal activities in most of these basins, therefore this provision is inadequate. The Draft Permit must be modified to require monitoring of these outfalls on at least a quarterly basis.

9. S2C – Construction Stormwater/Dewatering Monitoring

The Draft Permit requires the Port to submit a monitoring plan for stormwater and construction dewatering discharges at least 30 days before the start of construction for any construction project that is required under Special Condition S13 to have a SWPPP. A small construction project currently underway at the Airport has resulted in at least two instances of sedimentation in Miller Creek due to inadequate erosion control at the site, demonstrating the need for rigorous controls. Central to the protection of Miller Creek and Des Moines Creek, construction monitoring plans should be available for public review and comment. The Draft Permit must be modified to provide for full public participation in connection with the approval of such plans.

10. S2D – Glycols Usage

The Draft Permit requires that all deicing and anti-icing activities for aircraft or runways be reported no later than June 1 of each year, including the volumes and the type of materials used each day by each airline. We believe that this requirement does not provide for adequate reporting. We understand that historically, the quality of information supplied with regard to glycols usage has varied depending on which airline or contractor generated the baseline data. The Draft Permit must be modified to require uniform methods of generating the relevant data, which will form the basis for useful, understandable reporting.

11. S2E – Annual Stormwater Monitoring Summary Report

The Draft Permit requires the Port to submit a report by October 1 of each year, summarizing stormwater monitoring results for the previous 12 months. The Draft Permit must be modified to require that this report include the data points from the outfalls in graph form so the public can easily assess when data was collected and what it indicates. Furthermore, the Port must be required to include more detail in the section of the report describing what the Port has learned from the data – the Port should be required to be more specific and to assess how

measures instituted under the SWPPP have or have not affected the data on pollutants entering waters of the State through stormwater flows.

12. S2G – Flow Measurement

This section of the Draft Permit addresses flow measurement devices and methods. The section does not, however, provide sufficient information to assess reasonably its provisions. The Draft Permit fails to clarify (i) whether the permit would require the Port to install flow monitoring devices to measure stormwater-related discharge; (ii) if so, the prescribed schedule for installation; and (iii) if not, the basis for the decision not to impose such a requirement.

The Draft Permit must be modified to require the installation of approved flow monitoring devices to monitor the volume of discharge, within 120 days of the issuance of a new permit.

C. Reporting and Recordkeeping Requirements

13. S3C – Records Retention

The Draft Permit requires the Port to retain monitoring records for at least three years, and prescribes additional related requirements. The Draft Permit should be modified to require that this data be maintained on file at a location such as a public library, where the public can easily access and review the data. This modification would assist both Ecology and the Port in meeting their legal obligations to make monitoring information available to the public, and would decrease the expenditure of public funds associated with processing requests for such data from members of the public.

14. S3E – Additional Monitoring by the Permittee

This section addresses any monitoring that the Port may perform in addition to that required by the Draft Permit. The Draft Permit should be modified to specify that if the Port performs monitoring using methods and/or locations other than those specified in Special Condition S2, the Port must include in the relevant Discharge Monitoring Report notice of same during the month or quarter in which it takes place, and must provide the data upon request.

15. S3F(2) – Noncompliance Notification

The Draft Permit requires repeat sampling and analysis of any violation of the terms of the permit and submission of the results to Ecology within 30 days following the Port's becoming aware of the violation. This provision does not adequately address parameters for which monthly monitoring is already required; in effect, it requires resampling only for parameters that normally are monitored only on a quarterly or annual basis. This would fail to serve the purpose of demonstrating whether the violation was an aberration or represented an ongoing noncompliant

discharge.

The Draft Permit should be modified to require resampling of *all* discharges that show a lack of compliance with the permit terms.

16. S3F(3) – Noncompliance Notification

The Draft Permit requires the Port to notify Ecology of any failure to comply with permit terms within 24 hours, except spill events "that are contained by the IWS." These need not be reported. This provision is unacceptable, because it removes any incentive to find and eliminate the *cause* of spills. Many substances used at the Airport are not susceptible to treatment or removal by the IWS. Accordingly, we believe that this provision increases the potential for the discharge of toxic substances into Puget Sound without notification to Ecology or the public. The provision also eliminates an important check on the effectiveness of BMPs and SWPPP implementation.

The Draft Permit should be modified to require the Port to report *all* spills to Ecology, particularly when substances that the IWS cannot treat are involved.

D. Compliance Schedule

17. S4 – Compliance Schedule

This section discusses one of the most troubling inadequacies of the Draft Permit.

The Draft Permit requires the Port to submit an updated Industrial Wastewater Treatment AKART Engineer Report (the "Engineering Report") for Ecology's review and approval within one month following the permit issuance date. As described on page 8 of the Fact Sheet, the purpose of the Engineering Report is to provide a means for Ecology to determine what level of industrial wastewater treatment should be provided to satisfy the requirements of AKART. That decision, in turn, will be used to establish final effluent limitations to be incorporated into the permit through a major permit modification subject to public notice.

The Draft Permit also requires the Port to submit a preliminary design report and plans for approval, and allows the Port five years from the date of the approval of the Engineering Report to implement the AKART determination using "all available and reasonable means."

Clearly, it cannot be debated that the development and submittal by the Port of an adequate Engineering Report is critical to the development and imposition by Ecology of adequate effluent limitations to control discharges from the IWS. The Port submitted a draft Engineering Report in December 1995 in accordance with the requirements of its existing NPDES permit. The draft Engineering Report failed, however, to provide the information necessary for Ecology to make an AKART determination. Instead, the report focused primarily on interim improvements to the IWTP.

The issue of controlling the surface water and ground water discharge of pollutants from the IWS has been unresolved for years. This is unacceptable. The notion that in the late 1990s, for example, a 20.2 million gallon-capacity lagoon (Lagoon 3) associated with an industrial wastewater treatment facility would remain unlined for the "next few years" defies basic principles of environmental protection.

It is wholly unacceptable to defer the imposition of appropriate final effluent limitations on discharges from the IWTP until beyond the proposed permit renewal period of four and one-half years, as contemplated in the Draft Permit. (The Draft Permit provides that the Port will implement Ecology's AKART determination not later than five years *after* Ecology's approval of an *approvable* Engineering Report, thus extending far beyond the Draft Permit term, no doubt.) Indeed, many of the improvements made to the IWS and IWTP referenced in the Fact Sheet were made only in settlement of a recent CWA citizens' suit. Further, it is deeply troubling that Ecology proposes to defer addressing the Port's ongoing violation of its existing NPDES permit, namely, its failure to submit an adequate and approvable Engineering Report, into the next permit cycle. The Port's violation of its existing NPDES Permit should be addressed *immediately* by Ecology through an action to enforce the existing NPDES permit. The Draft Permit concedes that this Engineering Report submittal issue could be resolved promptly, insofar as it provides for submittal of the document within one month of the permit issuance date. This issue must not be rolled into the next permit cycle.

Ecology also must provide in the Draft Permit for a more appropriate schedule for implementation of the AKART determination. A five-year implementation period is far too long. Further, the Port must be required to demonstrate specified progress by specified dates, to assure that adequate treatment is put in place as soon as possible.

E. Operation and Maintenance

18. S5A – IWS Operations and Maintenance Manual

This section addresses the Port's mandatory IWS Operations and Maintenance Manual, including required contents and annual review. The Draft Permit must be modified to add a requirement that this manual specify proper handling of solids or wastewaters removed or disturbed during maintenance activities. Also, due to the number of changes in the IWS system through the summer of 1997, the Port must be required to update the manual sooner than the proposed year from the date of issuance of a new permit.

19. S5B – Bypass Procedures

This section requires the Port to notify Ecology immediately of any spill, overflow, or bypass from the IWS. The Draft Permit specifies three circumstances in which the bypass of wastes from the IWS to surface water is permitted, including an overflow of untreated industrial wastewater from the IWS collection system or lagoons due to stormwater flows in exceedance of the design criteria. As discussed in our comment concerning Special Condition S2E, allowing

overflows of the IWS due to stormwater flows in exceedance of design criteria constitutes backsliding, as well as a violation of Washington State's anti-degradation policy. Ecology mus modify the Draft Permit to enforce appropriate controls on the discharge of industrial wastewater to surface water into the stormwater drainage system. In addition, the Draft Permit must be modified to define "stormwater flows in exceedance of the design criteria," as the majority of the public is unlikely to know what this language means.

F. Solid Waste Handling

20. S6B – Leachate

This condition prohibits the Port from allowing leachate from its solid waste material to enter surface waters without providing all known, available and reasonable methods of prevention and treatment, and from allowing such leachate to violate the state Surface Water Quality Standards, Chapter 173-201 WAC, or the Ground Water Quality Standards. The condition further requires the Port to apply for a permit or permit modification "as may be required for such discharges to state ground or surface waters." We understand that Ecology has knowledge that leachate from the Port's solid wastes is discharging to ground water. Accordingly, the Port already should have obtained or applied for a state waste discharge permit for discharge to ground water. Ecology's failure to require the Port to submit an immediate application for a permit to discharge into ground water must be rectified.

G. Spill Plan

21. S7 – Spill Plan

This section addresses the Port's mandatory Spill Control Plan. The Draft Permit must be modified to require that this plan include a description of all hazardous waste storage areas including facilities and measures which prevent, contain, or treat spills of hazardous wastes.

H Acute Toxicity – Industrial Wastewater

22. S8A – Effluent Characterization

This condition prescribes requirements for acute toxicity testing of the IWS final effluent to determine the presence and amount of acute toxicity. Among other elements, the condition lists the species and protocols that the Port must use to conduct such testing. The Draft Permit should be modified to add to the list of species oyster larvae and mussels, with appropriate test protocols. The Draft Permit also must include Ecology's determination that the range of test organisms reflects the range of potentially exposed organisms in the receiving waters and protects the beneficial uses of those waters.

23. S8B – Effluent Limit for Acute Toxicity

This condition states that an effluent limit for acute toxicity will be added to the permit if certain effects are shown in testing. Accordingly, the Draft Permit must be modified to list an effluent for acute toxicity in the "Final Effluent Limitations" condition as one of the limits to be determined. This comment applies with equal force to the potential establishment of an effluent limit for chronic toxicity discussed in Special Condition S9B of the Draft Permit.

This condition also states that if an effluent limit is required, the limit will be "no acute toxicity" detected in a test concentration representing the acute critical effluent concentration ("ACEC"). The Draft Permit states that the ACEC means the maximum concentration of effluent during critical conditions at the boundary of the "zone of acute criteria exceedance" assigned pursuant to 173-201A-100 WAC and "authorized" in Special Condition S1C of the Draft Permit. The ACEC is to be defined by Ecology upon approval of the Engineering Report. This provision requires clarification. The Draft Permit must be modified to state that a "zone of acute criteria exceedance" is the same thing as a mixing zone, to avoid unnecessary complication and confusion. Furthermore, the Draft Permit states that the size of the mixing zone will be established in a major permit modification with public participation, but it makes no similar assurance with respect to the establishment of the ACEC. The Draft Permit must be modified to assure that the establishment of the ACEC will be accomplished in a procedure that includes full public participation. This comment applies with equal force to the determination of the chronic critical effluent concentration ("CCEC") discussed in Special Condition S9B of the Draft Permit.

Linking the establishment of an effluent limitation for acute toxicity to the anticipated mixing zone creates the potential for serious delays in addressing this vital issue. As discussed elsewhere in these comments, a mixing zone cannot legally be authorized until the IWS is operating consistently with AKART. The Engineering Report is not due for submission until one month after a new permit is issued, then Ecology must approve the Engineering Report, which is likely to take some months, and the Port has five years from approval to implement AKART. Under the Draft Permit, toxicity monitoring is to begin within 60 days *after* this implementation, and to continue for one year. A written report is due three months later, which will require review by Ecology and, if an effluent limit is to be set, a major permit modification with public participation. As a result, *no effluent limit for acute toxicity of industrial wastewater is likely to be established for two more permit cycles.* This creates an unacceptably long delay in addressing the toxicity of effluent discharges from the IWS. The Draft Permit must be modified to ensure that the need for an acute toxicity effluent limit is determined no later than the end of the next permit cycle. This comment applies with equal force to the establishment of an effluent limit for chronic toxicity of industrial wastewater and for acute toxicity of stormwater addressed in Special Conditions S9 and S10, respectively.

Further, this condition fails to require adequate testing methodology. Ecology must revise the Draft Permit to require that toxicity testing examine representative and worst-case scenarios. This requirement applies with equal force to the testing requirements for chronic

toxicity of industrial wastewater and acute toxicity of stormwater addressed in Special Conditions S9 and S10, respectively.

I. Acute Toxicity – Stormwater

24. S10A – Effluent Characterization

This condition requires the Port to conduct acute toxicity testing on stormwater twice at each of the following outfalls: Outfalls 002, 003, 005, 006, and 007. The deadline set for completing this testing is January 1, 2001. This provision has at least three deficiencies. First, the Draft Permit must be modified to add Outfall 008 to this list or explain why it is not included. Second, the Draft Permit must be modified to require that this testing be completed within a shorter time period, or to explain why a three-year period is necessary to perform only two tests at each outfall. Third, we believe that the Draft Permit must be modified to require that samples are timed to catch the early part of any release where the majority of the toxicity to surface waters would be expected.

J. Sediment Monitoring (Marine)

25. S11A – Sediment Sampling and Analysis Plan

This condition requires the Port to submit a Sediment Sampling and Analysis Plan for Ecology approval within one year following the issuance of a new permit, to "recharacterize sediment quality in the vicinity of Outfall 001." Ecology must modify the Draft Permit to ensure that adequate data is available concerning the toxicity of sediments in the vicinity of Outfall 001. We believe that the gathering of such data must include a survey for life forms by divers inspecting the outfall, as this information could influence decisions related to the nature and extent of the anticipated mixing zone for Outfall 001.

26. S11B – Sediment Data Report

This condition requires the Port to submit a report concerning the Sediment Sampling and Analysis Plan within three years after the issuance of a new permit. Ecology must modify the Draft Permit either to require this report within a significantly shorter period of time, or to explain fully why such a long period of time is necessary.

K Stormwater Pollution Prevention Plan (SWPPP) for Airport Operations

27. SWPPP

This condition requires the Port to continue to maintain its existing SWPPP, and describes objectives and requirements for the SWPPP. While the concept of having a SWPPP in place is laudable, it needs to be noted that in spite of having a SWPPP in place for some tim[illegible] the Airport, we understand that some of the highest pollutant levels discharged to Miller Cr[illegible]

and Des Moines Creek have occurred recently. In particular, data in Ecology's files related to glycols and fecal coliform are reason for concern and show the limitations of using a SWPPP and BMPs to control industrial discharges from the Airport to local creeks. While there are some technical concerns related to how to treat dissolved copper and zinc being discharged to the creeks, those concerns do not apply to fecal coliform and glycols. For both these parameters, there are available means of treatment and control that would protect waters of the State. It is not acceptable for the Port to continue discharging these pollutants in large amounts to the creeks. Ecology must modify the Draft Permit to require that the Port control levels of glycols and fecal coliform in stormwater through more effective means than the SWPPP and BMPs that have been used to date.

28. S12A – Objective 1

The first stated objective is to eliminate the discharges of unpermitted industrial wastewater, domestic wastewater, noncontact cooling water, or other illicit discharges to the storm drain system. Ecology must modify the Draft Permit to specify the activities and measures that will be implemented if such discharges are not eliminated from the stormwater, and the schedule for such elimination.

29. S12A – Objective 2

The second stated objective is to implement and maintain BMPs. As noted above, to date the effectiveness of BMPs has been questionable at best.

30. S12A – Objective 3

The third stated objective is to prevent violations of water quality, ground water quality, or sediment management standards. Ecology must modify the Draft Permit to make this a requirement, not an objective.

31. S12A – Objective 4

The fourth stated objective is to prevent adverse water quality impacts on beneficial uses of the receiving water by controlling peak rates and volumes of stormwater runoff. We understand that currently the Port has little or no control over peak rates and volumes of stormwater for most of the outfalls. Ecology must modify the Draft Permit to include permit requirements to meet this objective, and to specify a schedule for completing those steps.

32. S12B(1) – General Requirements, Submission and Retention

This condition requires the Port to submit an updated SWPPP to Ecology at least twice during the permit term, and to keep a copy on site. Ecology should modify the Draft Permit to state that a copy of the SWPPP must be available at a public repository to facilitate public access.

33. SB3

This condition allows the Port to incorporate portions of plans prepared for other purposes into the SWPPP. Ecology must modify the Draft Permit to require that such additional documents be incorporated into the SWPPP physically rather than by reference.

34. SB4

This condition prescribes the methodology for preparation of the SWPPP and is deficient in certain respects. Ecology must modify the Draft Permit (i) to require description of *all* source-control BMPs in the SWPPP, not just "selected" ones, and (ii) to describe all treatment BMP, without the "when necessary" qualifier.

L. Stormwater Pollution Prevention Plan (SWPPP) for Construction Activities

35. S13 – SWPPP for Construction Activities

This condition requires the Port to prepare and implement a SWPPP for construction activity that disturbs five or more acres of land. We believe that more attention needs to be paid to construction activities related to the SWPPP than was evidenced in the last permit cycle. There were substantial discharges to Des Moines Creek from construction activity related to the runway safety area at the south end of the Airport. We understand, in addition, that at the north end of the Airport, a contractor placed a soil stockpile almost on top of a storm drainage monitoring location, so close that the automatic sampler was knocked over and filled with soil, making it impossible to sample that location. We understand, in addition, that the Port may have used coverage under a general permit for construction to justify a lesser level of oversight and prevention than what would have been required under the construction requirements of its existing NPDES permit. Ecology must revise the Draft Permit to require that all construction projects are subject to the pollution prevention controls of the NPDES permit.

We understand that Ecology has represented to members of the public that certain changes are being implemented in the approach to monitoring and enforcement related to Airport construction activities. Ecology must modify the Draft Permit to explain and reflect these changes.

36. S13B(4)

This condition requires the Port to retain the SWPPP on site or within reasonable access to the site, and to make it available upon request to Ecology and local government agencies with jurisdiction. Ecology must modify the Draft Permit to make the SWPPP for each current construction activity available to the public at a public repository.

37. S13B(5)

This condition requires the Port to retain the SWPPP and copies of inspection reports and all other reports required by the Draft Permit for at least three years after stabilzation of each construction site. Ecology must modify the Draft Permit to provide that the public may obtain copies of these documents from Ecology upon request.

38. S13B(6)

This condition requires the Port to include in its records reports on incidents such as spills and other noncompliance notifications. Ecology must modify the Draft Permit to ensure that the public has access to such reports.

39. S13B(7)

This condition addresses modification of construction activity SWPPPs. Ecology must modify the Draft Permit (i) to provide for notification to the public of any non-compliance and any modifications to a SWPPP; (ii) to make enforcement of the environmental standards listed in 7c a mandatory duty for Ecology, rather than a discretionary decision; (iii) to require modification of the SWPPP to reflect *any* changes in design, construction, operation, or maintenance of a BMP, regardless of whether the Port considers the change to make the SWPPP less effective in preventing pollution; and (iv) to clearly define, in non-subjective terms, the meaning of "actual discharge of or potential to discharge a significant amount of any pollutant."

40. S13B(9)

This condition addresses the use of experimental BMPs. We believe that the use of experimental BMPs is appropriate, but certain controls are necessary. Ecology must modify the Draft Permit to require that any experimental BMP be at least as effective as the standard BMP being replaced, and to require the Port to state in each request related to an experimental BMP how its use would improve the Port's ability to satisfy environmental statutes and regulations.

41. S13C(1) – Contents and Requirements: An Erosion and Sediment Control Plan

This condition prescribes the contents of a required Erosion and Sediment Control Plan. We believe that these requirements must be more stringent. We understand that the Airport was operating under these same requirements when substantial discharges of sediment into Miller Creek occurred in September and October of this year, and that Ecology has assured members of the local community that a stronger preventative approach is planned. This should be reflected in the Draft Permit. At a minimum, Ecology must modify the Draft Permit (i) to require inspections more frequently than weekly; and (ii) to require pre-storm inspections prior to forecasted large storm events.

42. S13C(4) – Construction Stormwater/Dewatering Monitoring

This condition requires the SWPPP to include a monitoring plan for stormwater and construction dewatering discharges. Ecology must modify the Draft Permit to allow public review and comment on this monitoring plan before its approval.

M. Stormwater Drainage Report

43. S14 – Stormwater Drainage Report

This condition requires amendment of the Port's existing Stormwater Drainage Report prior to any planned action that would adversely affect the hydrology of either Miller Creek or Des Moines Creek. Ecology must modify the Draft Permit to allow public review and comment on this amendment before its approval.

N. IWS Hydrogeologic Study

44. S15 – IWS Hydrogeologic Study

This condition requires the Port to perform a hydrogeologic study to evaluate the potential for the IWS to impact ground water quality, but fails to explain a context for the study or to provide for the imposition of substantive discharge limitations upon the conclusion of the study. We believe that legitimate concerns exist related to impacts of the IWS on ground water, including the collection system and transmission system, not just the IWTP building and lagoon structures. We understand that past studies have confirmed releases from IWS collection structures to subsurface soils and to ground water. To date, no monitoring system has been implemented to determine if and where leaks are located.

Ecology must modify the Draft Permit to provide for the imposition of substantive requirements based on the results of this study. As stated elsewhere in these comments, Ecology also must modify the Draft Permit in several respects to ensure, as required under WAC 173-200-100, that the permit does not allow any activity that would violate the state Ground Water Quality Standards.

COMMENTS ON FACT SHEET

As the Fact Sheet is provided as a companion document to the Draft Permit, the following comments apply with equal strength to the conditions of the Draft Permit. They are articulated here for ease of reference.

O. Description of the Facility

45. Industrial Wastewater System, page 6

The Draft Permit states that Lagoons 1 and 2 have been lined, but that a schedule for installation of a liner in Lagoon 3 will not be established until the Engineering Report is completed. Lagoon 3 provides approximately 80% of the combined capacity of the IWS lagoons. Ecology must modify the Draft Permit to require that Lagoon 3 be lined by a date certain within a reasonable time period.

The likelihood of wastewater discharging into the ground water from an unlined wastewater storage lagoon is very great. The Washington State Waste Discharge Program prohibits the discharge of any waste into waters of the State, including ground water, except pursuant to a permit issued by Ecology. WAC 173-216-040. The Draft Permit does not appear to authorize the Port to discharge waste into the ground water from Lagoon 3, nor does the Draft Permit require the Port to obtain a state waste discharge permit in connection with such discharge. Ecology must modify the Draft Permit to rectify this deficiency.

The Fact Sheet also describes the IWS conveyance system. Information in Ecology's files indicates that the IWS conveyance system as well as the IWTP, has been identified as a discharge source to subsurface soils and ground water.[1] Based on the evidence available, including the age of the system, disturbance due to construction, aircraft and vehicle activity and other factors, the operation of the IWS has the potential to degrade ground water within the meaning of the Ground Water Quality Standards. Ecology must modify the Draft Permit to properly address the discharge of waste to ground water from the IWS conveyance system.

The Fact Sheet states that the efficiency of the IWTP, which is responsible for the actual treatment of waste routed through the IWS, "declines significantly" at temperatures below 35 degrees Fahrenheit. The regulatory implications of this assertion are not explained. Ecology must modify the Draft Permit to explain what causes this drop in efficiency, what the environmental implications are, and the basis for Ecology's implicit determination that this efficiency reduction does not require specific measures to be implemented under the Draft Permit to safeguard waters of the State.

46. Deicing/Anti-Icing, page 9

The discussion in the Fact Sheet makes clear that the application of deicing/anti-icing agents to runways and aircraft is one of the *primary* industrial activities conducted at the Airport. This discussion lends emphasis to our comments on the Draft Permit related to the treatment of deicing/anit-icing agents and their components and degradation constituents.

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1 Ecology files related to Olympic Pipe Line and United Airlines, 1993.

The Fact Sheet's discussion of the toxicity of glycols appears to assume that glycols used at the Airport are pure, laboratory grade glycol formulations. We believe that this is highly unlikely, and that in fact the glycol agents used at the Airport almost certainly contain additives and inerts. Ecology must revise the Fact Sheet to ensure that its analysis of deicing/anti-icing agents is based on the actual products used, not just their primary active ingredients. Conditions prescribed in the Draft Permit must be modified accordingly.

P. Summary of Compliance with the Previous Permit

47. Summary of Compliance with the Previous Permit, page 14

In the first bullet, it appears that Outfall 010 is misidentified. We understand that the location of the August 16, 1995 spill was at Outfall 015, as shown on the Comprehensive Storm Drainage System Plan and Design Drainage Basins map included in the Draft Permit. Outfall 015 is immediately below (south/southwest) the IWS lagoons 1 and 2. Outfall 010 is the furthest west of the southern Airport outfalls, located near Des Moines Memorial Drive. We understand that contrary to the implication in the incident report for the above spill, there were frequent discharges of polluted, foaming water with a petroleum odor and evident sheen. Ecology must revise the Fact Sheet to reflect this information.

Q. Proposed Permit Limitations

48. Proposed Permit Limitations, page 19

In the second paragraph, the Fact Sheet lists the reasons that Ecology may rely on in determining to not develop an effluent limit for a pollutant known to be in a discharge. One of the reasons included is if pollutants "...are not controllable at the source." This assertion is unacceptably vague. Ecology must revise the Fact Sheet to clarify the meaning of this phrase and the basis for Ecology's determination that this exclusion is environmentally appropriate and consistent with Ecology's duties under state and federal law.

49. Interim Effluent Limitations, Oil and Grease, page 19

The Fact Sheet discusses an existing and a proposed substituted analytic methodology for oil and grease, which are to be evaluated concurrently. The Fact Sheet states that if a statistical difference appears, Ecology will establish new interim effluent limitations based on the new methodology. Ecology must revise the Fact Sheet to state whether these new limitations will be established through a major or minor permit modification.

50. Final Limitations, page 21

The first paragraph of this section states that "[t]otal ammonia, PAHs, BTEX, total recoverable phenolics and priority pollutant metals have been removed from the list of final effluent limit parameters because monitoring data has shown that these parameters are not

present at levels of concern in the IWTP effluent." This statement is provided with no explanation whatsoever. The substances in this list typically are associated with discharges from airport facilities throughout the Nation. The removal of these parameters from the list of final effluent parameters constitutes backsliding, which is prohibited under the Clean Water Act. Ecology must revise the Fact Sheet to explain the specific basis for the proposed deletion of these parameters from the list of final effluent parameters, with reference to (1) the particular monitoring data relied upon by Ecology, and (2) the anti-backsliding provisions of the CWA and WPCL.

51. Surface Water Quality-Based Effluent Limitations, page 21

This section discusses protection of existing water quality and preservation of the designated beneficial uses of surface waters, but it fails to consider adequately critical conditions related to Airport discharges to such waters. As noted elsewhere in these comments, Ecology has listed Des Moines Creek, pursuant to Section 303(d) of the Clean Water Act, as water quality limited for fecal coliform. We understand, further, that the King County Water and Land Resource Division has also determined that fecal coliform in Des Moines Creek is a critical condition. Ecology's failure to address fecal coliform discharges into surface water from the Airport in this Draft Permit is unacceptable. Ecology must modify the Fact Sheet and the Draft Permit to establish water quality-based effluent limits to encourage and enforce the elimination of fecal coliform (and related pathogenic) discharges to surface waters from the Airport.

52. Anti-degradation, page 22

This section of the Fact Sheet discusses Washington State's Anti-degradation Policy, which requires that discharges into a receiving water not further degrade the existing water quality. As stated in the Fact Sheet, applicable water quality criteria are determined according to the natural conditions of a receiving water if those conditions are either of higher or lower quality than the criteria assigned by regulation. The Fact Sheet further states that Ecology is "unable to determine if ambient water quality is either higher or lower than the designated classification criteria given in Chapter 173-200 WAC; therefore, [Ecology] will use the designated classification criteria . . ." As a threshold matter, the Fact Sheet fails to specify for which body of water Ecology has been unable to make this determination, therefore we assume this is the case for all the water bodies that receive discharge from the Airport. Moreover, the indifference to enforcement of the State's anti-degradation policy implicit in Ecology's casual observation that it is "unable to determine if ambient water quality is either higher or lower than the designated classification criteria," and therefore will not concern itself with determining the facts, is extremely troubling. Further, the bland assurance that the "discharges authorized by this proposed permit should not cause a loss of beneficial uses" is wholly conclusory.

Ecology must revise the Draft Permit to require the collection of data necessary to determine the natural conditions of the receiving waters and to provide for the imposition of effluent limitations as necessary to comply with the State's anti-degradation policy.

53. Description of the Receiving Water, Puget Sound, page 23

The Fact Sheet makes passing reference to EPA's designation of Puget Sound as an estuary of national significance under the National Estuary Program established by Section 320 of the CWA. Since 1986, federal, state and local governmental activities to maintain and enhance water quality in Puget Sound have been coordinated through the Puget Sound Water Quality Management Plan ("Puget Sound Management Plan"). In 1991, EPA accepted the Puget Sound Management Plan as the Comprehensive Conservation and Management Plan for Puget Sound under the National Estuary Program. Further, in accordance with the Puget Sound Water Quality Protection Act enacted by the Washington Legislature in 1996, it is the "policy of the State of Washington" to "protect and restore the biological health and diversity of Puget Sound."

The Draft Permit and Fact Sheet must be consistent with the requirements of the Puget Sound Management Plan and the ongoing activities, plans and program requirements of the Puget Sound Water Quality Action Team. Both documents should be revised to provide for, and explain to the public, such consistency. In addition, in light of the requirements imposed in the Draft Permit related to outfall monitoring and sediment monitoring, Ecology must revise the Fact Sheet to include discussion of what data exists concerning water and sediment quality in the vicinity of the Airport's outfall into Puget Sound, and to identify where the public may obtain such information.

54. Miller Creek, page 23

We believe that Lake Reba requires dredging to restore adequate capacity to mitigate damage from peak flows. Ecology must revise the Fact Sheet to discuss the capacity of Lake Reba and the advisability of dredging under specific conditions, and must revise the Draft Permit to prescribe a dredging schedule and associated requirements.

55. Des Moines Creek, page 24

Like the discussion of Miller Creek, the Fact Sheet's discussion of Des Moines Creek gives no indication as to the adequacy of detention facilities to protect the receiving water's beneficial uses. Similarly, the Draft Permit imposes no requirements related to the maintenance of existing detention capacity or the need for and schedule for developing additional capacity. Ecology must modfiy the Fact Sheet and the Draft Permit to correct these deficiencies.

Ecology also must modify this section to discuss the State's listing of Des Moines Creek under CWA section 303(d), and the regulatory implications of that listing.

56. Surface Water Quality Criteria, page 25

This section sets forth state surface water criteria for aquatic biota, but it fails to assess the Port's compliance with these criteria. Ecology must revise the Fact Sheet to assess the P[illegible]'s compliance with these criteria, in particular fecal coliform, and to explain how the Draft Per[illegible]

assures such compliance. Ecology must revise the Draft Permit accordingly to assure such compliance.

57. Consideration of Surface Water Quality-Based Limits for Numeric Criteria, Industrial Wastewater, page 26

This section discusses a mixing zone study performed by the Port. It addresses specifically the impacts of dissolved oxygen deficiency and pH, and notes that "[n]o other water quality criteria pollutants are present in the IWTP discharge at levels of concern." Ecology must revise the Fact Sheet to explain the basis for its determination that dissolved oxygen defiency and pH are the *only* water quality criteria pollutants that should be addressed in connection with the Port's industrial wastewater discharge.

58. Stormwater, page 27

The Fact Sheet states that stormwater discharges from the Airport show "reasonable potential to violate the water quality criteria for copper, lead, and zinc." The Draft Permit does not, however, prescribe any measures designed to protect the waters of the State from such discharges. Ecology must revise the Draft Permit to include specific effluent limitations applicable to the presence of copper, lead, and zinc in discharges from the Airport, including stormwater discharges.

59. Whole Effluent Toxicity, page 29

This section of the Fact Sheet discusses methodolgy for the whole effluent toxicity testing required under Special Conditions S8, S9 and S10 of the Draft Permit. As discussed briefly in our comment concerning Special Condition S8, the timing and nature of this testing is not adequately addressed in the Draft Permit. We believe that data collection should start as soon as possible, and be designed to require sampling of the early part of each episode of stormwater discharge. In addition, controls must be instituted to prevent the Port from using data that excludes the highest values from consideration. Ecology must modify the Fact Sheet and the Draft Permit to correct these deficiencies. In addition, to avoid confusion, Ecology must revise the Fact Sheet at least to cross-reference the discussion of whole effluent toxicity testing in the section on industrial wastewater, since such testing applies to industrial wastewater as well as stormwater.

60. Human Health, page 31

This section identifies numeric health-based criteria that must be considered in NPDES permits, then makes the unexplained assertion that the Port's discharges "do not contain chemicals of concern based on existing data." This unexplained assertion is unacceptable. Ecology must revise the Fact Sheet to identify the data on which it relied in making this determination and explain fully the basis for this determination.

61. Ground Water Quality Limitations, page 31

This section acknowledges Ecology's obligations under the Ground Water Quality Standards, but fails to explain adequately how these obligations are met. As discussed in comments to the Draft Permit, Ecology must correct its apparent determination that only *intentional* discharges of waste to ground water are regulated under the Ground Water Quality Standards.

The Fact Sheet discusses the impact of fuel spills and states that all sites that have been affected by such spills have been or are being remediated under the Model Toxics Control Act. These generalized assertions are inadequate. In particular, the Fact Sheet refers to activities called for under an agreed order between the Port and Ecology. It is our understanding that this agreed order is still under review and has not been signed. Accordingly, any assertions based on its provisions are inappropriate. Ecology must revise the Fact Sheet (i) to identify specifically each site that has been affected by a fuel spill or spills; (ii) to explain how after-the-fact remediation under the Model Toxics Control Act is related to Ecology's and the Port's obligations under state law to *prevent* the ongoing discharge of pollutants to ground water; and (iii) to fully address compliance with the Ground Water Quality Standards.

R. Other Permit Conditions

62. Operation and Maintenance, page 33

The Port's required Operations and Maintenance Manual must include specific requirements related to stormwater detention facilities. Ecology must modify the Draft Permit to include such a requirement, and must revise the Fact Sheet accordingly.

S. General Comment on References to Task Completion Dates

63. Task Completion

The Fact Sheet contains several assertions that various improvements to the Port's waste control systems were to have been completed by dates that are now past or soon will be. These include the following:

- Additional pump stations to divert snow melt water from snow storage areas to the IWS, have been completed by November 1, 1997.
- New snow storage facilities draining to the IWS, have been completed by November 1, 1997.
- Two new DAF units in the IWTP, to be completed in December 1997.
- Improvements to drainage on the south side of the IWTP building, to be completed in December 1997
- Installation of a new influent sampler, to be completed in December 1997.

In conclusion, for the reasons set forth above we respectfully assert that the terms of the CWA, the WPCL, State of Washington laws governing discharges to ground water and Puget Sound, the regulations and applicable policy documents promulgated or issued respectively thereunder, the administrative record compiled in this matter to date (all of the foregoing is hereby incorporated by reference as if fully set forth herein), and the exercise of sound judgment to protect human health and the environment, mandate that Ecology revise and reissue the Draft Permit and Fact Sheet for public comment.

Sincerely,

Peter J. Kirsch

cc: John Rankin, Chairman, ACC Executive Committee
Kristin Hanson

ATTACHMENT 4

BEFORE THE HEARING EXAMINER
OF THE PORT OF SEATTLE

CITY OF DES MOINES, et al., Petitioners, v. THE PORT OF SEATTLE, et al. Respondents.	HEARING EXAMINER CASE NO. 96-04 TESTIMONY OF DR. STEPHEN L.M. HOCKADAY ON BEHALF OF PETITIONER AIRPORT COMMUNITIES COALITION

1.0 INTRODUCTION

My name is Stephen Hockaday. Currently, I am on leave from my position as a Professor of Civil and Environmental Engineering at California Polytechnic State University. I received my Ph.D. in Air Transportation from the University of California at Berkeley, with a dissertation on the separation of landing aircraft in instrument weather conditions. I am a registered professional civil engineer, environmental engineer and traffic engineer. I have been active in airport planning and air traffic control for more than twenty-five years. During that time, I have worked on projects for the Federal Aviation Administration ("FAA"), numerous airport proprietors – including the Port of Seattle ("Port") – and regional planning organizations, such as the Puget Sound Regional Council ("PSRC"). I also have presented numerous technical papers and am the author of many published articles on a wide range of topics related to airport layout design and aircraft traffic control procedures. A copy of my résumé is attached to this testimony as Exhibit 1.

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I have been studying the proposed expansion of Seattle-Tacoma International Airport ("Sea-Tac Airport" or the "Airport") for approximately 6 years. In 1991, I was among a [illegible] consultants retained by the PSRC during the Flight Plan study, ("Flight Plan" was the name given to the programmatic, non-project environmental study and environmental impact statemer sponsored by the PSRC and the Port to consider approaches to increasing air transportation capacity in the Puget Sound region), to evaluate the airspace impacts of various proposals for th expansion of regional air traffic capacity. *See PSRC and Port, Flight Plan Project Final Environmental Impact Statement ("Flight Plan EIS") (October 1992).*

Based upon my review of documents and reports developed by the FAA and the Port, including the February 1996 Final Environmental Impact Statement ("Original EIS") and the May 1997 Supplemental Environmental Impact Statement ("Supplemental EIS"), it is my exper opinion that there are feasible alternatives to the Port's plan to add an 8,500-foot runway [illegible]500 feet west of the existing Runway 16L/34R which would satisfy the Port's stated need to "improve the poor weather airfield operating capability in a manner that accommodates aircraft activity with an acceptable level of aircraft delay." *Supplemental EIS at 2-18.*

2.0 DISCUSSION

2.1 The Port's Environmental Impact Statements Arbitrarily Dismiss Alternative Runway Lengths and Placements

According to the Original EIS and the Supplemental EIS (collectively, the "EISs"), the purpose and need for the development of a new 8,500-foot runway at Sea-Tac Airport is to "improve the poor weather airfield operating capability in a manner that accommodates aircraft activity with an acceptable level of aircraft delay." *Original EIS at I-12; Supplemental EIS at*

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18. The EISs did not give serious consideration to alternatives which could achieve substantially the same end at considerably less cost and with less impact on the surrounding communities.

According to the EISs, a new runway is needed to reduce delays for arrival aircraft in poor weather. *Original EIS at I-17; Supplemental EIS at 2-18.* As noted in the EISs, "[a]rrival delay represents over 85 percent of total current delay experienced by an average flight." *Original EIS at I-15; Supplemental EIS at 2-8 (Table 2-4).* Consequently, the asserted need for additional poor weather capacity could be accommodated by a new runway designed only or primarily for arrivals. Based on FAA standards, a runway designed to accommodate arrivals wi be shorter than one required for departures. *See P&D Aviation, Airport Master Plan Update for Seattle-Tacoma International Airport, Technical Report No. 6: Airside Options Evaluation (Sept. 19, 1994) ("Technical Report No. 6") at 2-19, 2-20 (Tables 2-8 and 2-9).* In fact, at Sea-Tac Airport, a runway considerably shorter than 8,500 feet could meet the Port's stated need for improved poor weather airfield operating capability to accommodate aircraft activity with an acceptable level of aircraft delay.

Consultants retained by the Port performed an analysis of runway landing lengths during the preparation of the Sea-Tac Airport Master Plan Update. *See id.* As part of that exercise, landing length requirements were established for aircraft based on landing weights that are 90 percent of maximum landing weight. Since a landing aircraft typically has a decreased load of fuel, these runway length values are conservative.

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Runway length requirements are also available from the FAA. Review of this data for the B737, B747, and B757 aircraft appear to confirm the Port data. *FAA Advisory Circula 150/5325-4A, Runway Length Requirements for Airport Design (Jan. 29, 1990).*

According to the ***Port's*** consultant, landing-length requirements for commuter, general aviation and military aircraft at Sea-Tac Airport are 3,300 feet if the runway is dry and 3,800 fee if the runway is wet. *Technical Report No. 6 at 2-20 (Table 2-9).* Therefore, a runway as short as 4,000 feet (which is less than half the length proposed by the Port), could accommodate all current commuter, general aviation and military operations occurring at Sea-Tac Airport.

Table 1, based on Port data, shows the number and percentage of aircraft operations that could land on and take off from a 6,000 or 6,700 foot runway compared with a 8,500 foot runway. The Port's data shows that, averaged over a year, a 6,000-foot runway could accommodate 76 to 8 percent of all arrivals in 2010, with the exception of the largest aircraft (e.g., A340-200/400, B747 MD11/12, A330, B777) which comprise only 2 percent of the aircraft mix. *See Technical Report No. 6 at 2-19, 2-20 (Tables 2-8 and 2-9).* A 6,700 foot runway can be used by 99 to 100 percent c the landing aircraft. Increasing the length of a new runway from 6,700 feet to 8,500 feet would provide only a minimal increase in the percentage of aircraft that could land on a wet runway and still would not permit use by all aircraft. *See Table 1(attached hereto) and sources cited therein.* The Port recognizes that an 8,500 foot runway would not accommodate all aircraft. *See Supplemental EIS at 3-7.*

Although the primary purpose of a new third runway is to reduce poor weather arrival delay, the Port may use the proposed runway for takeoffs in some peak departure periods. *Origi*

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EIS at II-12; Technical Report No. 6 at 2-14, 2-18. Table 4 (attached hereto), based on Port data shows the percentage of aircraft operations that could depart from a new runway either 6,000 or 6,700 feet long. The Port data show that, averaged over the year, a 6,000 foot runway could be used by 33% of the departing aircraft and that a 6,700 foot runway could be used by 87% of the departing aircraft.

The Port data demonstrate that a 6,700 foot runway has most of the capability of an 8,50 foot runway in terms of the ability of aircraft to take off, and has essentially the same capability as a 8,500 foot runway in terms of the ability of aircraft to land. The data also demonstrate that 6,000 foot runway has most of the capability of an 8,500 foot runway in terms of the ability of aircraft to land. The data are summarized in Table 1.

It should be noted that the percent of aircraft that could use a 6,000 or 6,700 foot runwa during the peak arrival hours and months is higher than the average annual values shown above The Supplemental EIS shows that the weather is much better in the peak months of the year an in the peak arrival hours of the day than the average annual weather, and therefore, that the percent use of a new 6,000 or 6,700 foot runway would be greater than shown in the above average annual values. *Supplemental EIS at F-27, F-31.*

In 1995, the FAA issued a report which documents its investigation of the benefit to be obtained by increasing the length of the proposed runway in order to accommodate all heavy aircraft, (heavy aircraft would represent 15.5 percent of the mix in 2000 and 28.1 percent in 2020 and demonstrated that allowing all heavy jets to use a new runway achieved a 3.5 percent decrea in delays (from 3.95 minutes to 3.82 minutes per aircraft). *See FAA, Airport Capacity*

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Enhancement Plan for Seattle-Tacoma International Airport, Data Package No. 11(Apr. 1995) ("Data Package No. 11") at 48. The development of an 8,500-foot runway rather than a 6,70 foot runway would result in only a marginal improvement in delay.

A 6,000 or 6,700 foot runway could be located with its southern threshold at the location of the southern threshold of the proposed 8,500-foot runway described in the Supplemental EIS. *Supplemental EIS at 3-1 through 3-6.* Based on the Port's and FAA's analysis, such a placement is operationally feasible and would not unduly complicate terminal airspace management.

The analysis of the foregoing data provided by the Port and the FAA clearly demonstrates that alternatives with runway lengths of less than 8,500 feet meet the stated purpose and need for the proposed Airport expansion. Notwithstanding the fact that construction of a shorter runway would, in fact, be a reasonable alternative, the Port summarily dismissed these alternatives without devoting sufficiently detailed analysis to each so as to permit a comparison, or the environmental impact of all reasonable alternatives which meet the stated purpose and need.

2.2 The Port's Environmental Impact Statements Fail to Adequately Consider the Potential Effects of Implementing Localizer Directional Aid Technology

Based upon its faulty analysis of airfield capability, the Port dismissed the advantages of the Localizer Directional Aid ("LDA") approaches already in place at other U.S. airports today. The use of an LDA in conjunction with an Instrument Landing System approach ("ILS") on adjacent, closely-spaced runways increases the percentage of the year that two simultaneous approaches would be permitted on parallel runways during poor weather (i.e., Instrument Flight Rules, "IFR") conditions when the distance between those runways would otherwise be below the 3,000-foot minimum required for simultaneous arrivals in IFR conditions. It involves the u

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of a LDA approach to one parallel runway and an ILS approach to the adjacent parallel runway. This entire procedure generally is referred to as "LDA."

One aircraft is aligned with the ILS approach to one runway while the other aircraft is aligned with a localizer positioned off to the side of another runway until approximately 3 miles from the landing threshold when the aircraft aligns itself with the centerline of the runway. These approaches are conducted simultaneously and utilize the procedures and some of the equipment associated with simultaneous parallel approaches to runways separated by at least 3,000 feet.

An LDA system currently being used at Lambert-St. Louis International Airport allows simultaneous arrivals on runways separated by 1,300 feet when the ceiling is 1,200 feet and visibility is 4 miles. A similar system has been adopted at San Francisco International Airport o runways that are separated by 750 feet.

The use of LDA approaches at Sea-Tac Airport under similar weather conditions, when combined with a 6,000 or 6,700-foot runway, could reduce the amount of time that the Airport i limited to a single arrival stream from the 44 percent stated in the EISs to approximately 8 percent of the year (or approximately 3 percent of the time during peak periods). Thus, the development of an LDA system at Sea-Tac Airport would increase the capacity of the existing Airport and result in a significant decrease in delays in most poor weather conditions.

The use of LDA is mentioned in the EISs. *See Original EIS at II-16 through II-17; Supplemental EIS at 3-6.* The Port and the FAA, however, made the erroneous assumption tha LDA would not operate below the 2,500 ceiling and 3-mile visibility and did not examine the

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of an LDA in conjunction with runway lengths of less than 8,500 feet. *See, e.g., S. Dalton, FAA, Delay Benefit Calculation for an LDA Procedure at Seattle-Tacoma International Airport 21, 1995) at 2; Evaluation of "Implementation of an LDA/DME Approach to Runway 16R in Lieu of a Third Runway at Sea-Tac Airport" (Dec. 20, 1995), at 3.* The full benefits that LDA technology would bring to the Airport, therefore, were not considered in the EISs.

2.3 The Port's Evaluation of Alternatives Failed to Consider the Potential for Airspace Conflicts Between Boeing Field and Sea-Tac Airport

The examination of alternatives in the EISs does not evaluate the effects of a new 8,500-foot runway at Sea-Tac Airport on air traffic using Boeing Field (also known as King County Airport). Conflicts with aircraft using Boeing Field would reduce the benefits of any new runway at Sea-Tac Airport. A report prepared for the FAA documents the fact that aircraft using the proposed 8,500-foot third runway at Sea-Tac Airport would conflict with aircraft using Boeing Field, and, thereby reduce the effectiveness of the runway at Sea-Tac Airport. *See generally Aviation Simulations Int'l, Inc., Impact of Boeing Field Interactions on the Benefits of a Proposed New Runway at Seattle-Tacoma International Airport ("Impact of Boeing Field Interactions"), Prepared for the FAA,, Northwest Mountain Region (July 1992).* These interactions would occur in three situations.

- North Flow Instrument Meteorological Conditions (Instrument Meteorological Conditions require the use of Instrument Flight Rules (IFR)) - Sea-Tac Airport woul not accommodate traffic even with a new runway;
- South Flow Instrument Meteorological Conditions - Sea-Tac Airport capacity gains from a new runway would be small and would reduce Boeing Field capacity; and

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- South Flow Visual Meteorological Conditions (Visual Meteorological Conditions allow the use of Visual Flight Rules (VFR))- Sea-Tac Airport capacity gains from a new runway are not assured.

When problems caused by airspace conflicts between Sea-Tac Airport and Boeing Field are taken into consideration, the total poor weather arrival capacity of Sea-Tac Airport with the proposed new 8,500-foot runway would be considerably lower than projected in the EISs. In fact, there might even be a loss of capacity at Sea-Tac Airport when compared with the existing runway layout (from -10 percent to +12 percent). *See Impact of Boeing Field Interactions at 23.*

A single arrival to Boeing Field stops the arrival flow onto the proposed third runway at Sea-Tac Airport for a significant period. *Id. at 20.* For typical approach speeds (120 to 150 knots), the 10 nautical miles separation required between arrivals to the new runway is equivalent to 4 to 5 minutes, limiting the capacity of the new runway to 12 to 15 arrivals per hou when aircraft are using Boeing Field. There will be five hours each day with 10 or more arrivals per hour at Boeing Field. *Data Package No. 11 at 18.* As a result, disruptions to the capacity of the new runway will be essentially continuous during these hours. Consequently, the report prepared for the FAA demonstrates that the proposed 8,500-foot third parallel runway at Sea-Ta Airport will not provide any significant capacity gains due to airspace interactions with Boeing Field. *See Impact of Boeing Field Interactions at 18, 20, 23.*

The lack of consideration in the EISs of the effects of airspace conflicts with Boeing Field is a serious omission which further undermines the analysis of alternatives in the EISs.

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TABLE 1

Aircraft that could use a new runway of different lengths in 2010
Numbers and percentages of annual aircraft operations

Operation Type / Runway	2010 Forecast	6,000' Runway	6,700' Runway	8,500'
Landing	237,000 (100%)	179,200-201,200 (76-85%)	233,700-237,000 (99-100%)	234,600 (99%)
Take Off	237,000 (100%)	78,200 (33%)	206,200 (87%)	213,300 (90%)
Total	474,000 (100%)	257,400-279,400 (54-58%)	439,900-443,200 (93-94%)	447,900 (94%)

Sources: Supplemental EIS, Table 1-2; Original EIS, Table II-3 and Page II-12; P&D Aviation, Working Paper 1, Unconstrained Aviation Forecast Update (revised Jan. 2, 1997); P&D Aviation, Airport Master Plan Update for Seattle-Tacoma International Airport, Technical Report No. 6: Airside Options Evaluation (Sept. 19, 1994), Tables 2-3 and 2-9, Figure 2-1, and Pages 2-6 and 2-18.

TABLE 2

Aircraft Classification in 2010

Aircraft Category	Number Of Seats	Approach Category	Airplane Desn Gp	Average Daily Operations (2010)
Air Taxi/Commuter	0- 60			
Small	0- 10	A-B	I-II	24.8
J31, Metro	11- 20	B	I-II	103.4
S360, DHC8, J41, ATR42	21- 60	B	II-III	285.5
Total AT/Commuter	Avge 39			413.7 **(31.9%)**
Smaller Air Carrier Passenger	61-170			
F-28, ATR72, RJ70	61- 90	B-C	II-III	47.2
B737-1/2/500, F100	91-120	C	III	39.3
B727, B737-3/400 MD80/90 A319/320	121-170	C	III	448.3
Total Smaller Air Carrier	Avge 137			534.8 **(41.2%)**
Larger Air Carrier Passenger	171 +			
B757-200, 767-200, A310/321	171-240	C	IV	141.6
A300, B767-300, L101, DC10, A340-200	241-350	C-D	IV-V	96.7
B747/777, MD11/12, A330/340-400	350+	D	V	13.3
Total Larger Air Carrier	Avge 242			251.6 **(19.3%)**
Cargo	-	A-D	I-V	68.5 **(5.3%)**
General Aviation	-	A-B	I-II	28.4 **(2.2%)**
Military	-	A-C	I-III	1.7 **(0.1%)**
Airport Total	Avge 125			1,298.6 **(100%)**

Source: P&D Aviation, Working Paper 1, Unconstrained Aviation Forecast Update (revised Ju 2, 1997) Tables 3-14 & 3-15.

TABLE 3

Percent of Total Landing Operations Accommodated by 6000' and 6,700' Runways

Aircraft Type	6,000' Runway			6,700' Runway		
	% in Mix	% Use Dry Rwy	% Use Wet Rwy	% in Mix	% Use Dry Rwy	% Use Wet Rwy
Air Taxi/ Commuter	31.9%	31.9%	31.9%	31.9%	31.9%	31.9%
Smaller Air Carrier (to C-III)	41.2%	41.2%	41.2%	41.2%	41.2%	41.2%
Larger Air Carrier (C-IV +)	19.3%	8.2%	0.0%	19.3%	19.3%	18.6%
Cargo	5.3%	1.9%	1.3%	5.3%	5.3%	4.6%
GA / Mil	2.3%	1.6%	1.1%	2.3%	2.3%	2.3%
Total	100.0%	84.9%	75.6%	100.0%	100.0%	98.6%

Sources: P&D Aviation, Working Paper 1, Unconstrained Aviation Forecast Update (revised Jan. 2, 1997); P&D Aviation, Airport Master Plan Update for Seattle-Tacoma International Airport, Technical Report No. 6: Airside Options Evaluation (Sept. 19, 1994).

TABLE 4

Percent of Total Take Off Operations Accommodated by 6000' and 6,700' Runways

Aircraft Type	6,000' Runway		6,700' Runway	
	% in Mix	% Use	% in Mix	% Use
Air Taxi/ Commuter	31.9%	31.9%	31.9%	31.9%
Smaller Air Carrier (to C-III)	41.2%	0.0%	41.2%	41.2%
Larger Air Carrier (C-IV +)	19.3%	0.0%	19.3%	10.9%
Cargo	5.3%	0.0%	5.3%	1.3%
GA / Mil	2.3%	1.1%	2.3%	1.7%
Total	100.0%	33.0%	100.0%	87.0%

Sources: P&D Aviation, Working Paper 1, Unconstrained Aviation Forecast Update (revised Jan. 2, 1997); P&D Aviation, Airport Master Plan Update for Seattle-Tacoma International Airport, Technical Report No. 6: Airside Options Evaluation (Sept. 19, 1994), Table 2-3..

Note that these runway lengths are based on a full passenger load, zero winds, and 84 degrees temperature.

C.A.S.E.
Citizens Against Seatac Expansion

April 9, 1998

Permit Coordination Unit
Department of Ecology
P.O. Box 47703
Olympia, WA 98504-7703

Reference: 96-4-02325
Port of Seattle

The intent of this letter is to formally request that the Department of Ecology Water Quality Certification and Certification of Consistency with the Washington Coastal Zone Management Program deny the application provided by the Port of Seattle, the aforementioned reference.

Enclosed with this request is a document containing the comments prepared by Citizens Against Sea-Tac Expansion (CASE). These comments are intended to provide information necessary to support the rejection. These comments are also being provided to the Army Corps of Engineers.

1 CASE would like to remind the DOE that the Port of Seattle has an abysmal environmental record. The EIS, SEIS, and FEIS all contained significant and substantive errors and omissions. Consequently, CASE believes that the applicant clearly does not comply with Section 301, 302, 303, 306, and 307 of the federal Clean Water Act of 1977 (PL 95-217). It would be criminal and a violation of the public trust if any other determination with regard to this matter where determined.

2 Based on the aforementioned comments, the Department of Ecology can only make the determination that the applicant does not in fact, comply with Section 307(c) of the federal Coastal Zone Management Act of 1972 (16 U.S.C. 1451), and correspondingly will not comply with the Washington State Coastal Zone Management Program and that the referenced project will not be conducted in a manner consistent with that Program.

CASE expects the Department of Ecology to rise above the political decision making process that it has heretofore be a party to and to make determination as required by the aforementioned statutes, the wishes of the citizens of the State of Washington and affected airport communities.

Sincerely,

Candice Corvari

Candice L. Corvari
Co-President
CASE
19900 Fourth Avenue SW
Normandy Park, Washington 98166

Lawrence J. Corvari
Co-President

cc: Governor Gary Locke
Lt. Governor Brad Owen
State Senator Julia Patterson
State Representative Karen Keiser
State Representative Jim McCune
King County Executive Ron Sims
King County Council Member Peter von Reichbauer
King County Council Member Greg Nickels
King County Council Member Kent Pullen
King County Council Member Chris Vance
King County Council Member Brian Derdowski
King County Council Member Rob McKenna
King County Council Member Larry Phillips
City of Normandy Park
City of Burien
City of Des Moines
City of Seatac
City of Tukwila
City of Federal Way
Port of Seattle
U.S. Senator Patty Murray
U.S. Senator Slade Gordon
U.S. Representative Adam Smith
Frank D. Ellis, Engineering Inspector General
Colonel James M. Rigsby, District Engineer, Corps of Engineers, Seattle District
Environmental Protection Agency
State Department of Ecology
Airport Cities Coalition
Regional Commission on Airport Affairs
Miller Creek Coalition
Puget Sound Water Coalition
Trouts Unlimited
Sierra Club

CASE
Citizens Against SeaTac Expansion
19900 Fourth Avenue SW
Normandy Park, WA 98166

Comments Regarding the Army Corps of Engineers Section 404 Permit Prepared by CASE

Reference: 96-4-02325

Name: Port of Seattle

Date: April 9, 1998

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Copies of this document may be obtained:

CASE
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AR 036882

Background

CASE is a grass-roots organization whose membership includes:

- concerned citizens fighting the battle for over 20 years,
- Current and retired Water Commissioners concerned with drinking water impacts.
- Current and retired Sewer Commissioners concerned with sewer impacts.
- environmentalists concerned with Puget Sound phytoplankton and the impact on the world's food chain.
- aerospace managers, engineers, and physicists convinced this will be so expensive it will hurt the aerospace industry,
- State of Washington Senators and Representatives as well as locally elected officials.
- consultants who verify members' concerns

Our membership provides expertise and analysis by:

- purchasing computer models used in POS and government analyses and run our own analysis to identify MAJOR errors
- participating in international data exchanges via conference calls and the internet
- provide expert data into government agencies and concerned organizations

The Port of Seattle's (POS) Section 404 permit application proposes to fill wetlands as part of the construction of a third runway at the POS's Seattle-Tacoma International Airport. Citizens Against SeaTac Expansion (CASE) objects to the proposed permit for the following reasons:

- The POS has failed to give adequate considerations to alternative approaches and designs which would obviate the need to destroy the wetlands and damage the streams.
- The POS has not proposed an appropriate plan to replace the wetlands it proposes to destroy.
- Destruction of the wetlands will cause or contribute to significant degradation of water quality and aquatic resources in the area including streams and aquifers.
- Destruction of these wetlands is contrary to local regulations and the interests of the surrounding communities, the Clean Water Act, and the current Administration's Clean Water Initiative.
- The destruction of these wetlands and construction of a third runway may make it impossible to implement the AKART plan to be developed under a new NPDES permit by eliminating land and using resources that otherwise could be used to control pollution such as de-icing pads, and

AR 036883

The permit consideration should be delayed until resolution of significant technical and cost issues that could eliminate the possibility of a third runway, including the following:

- Determine the impacts of the proposed Endangered Species designation for salmon;
- Complete the 1997 Groundwater Study required by the Department of Ecology (DOE) Agreed Order 97TC-N122;
- Reconcile the discrepancies between EIS landslide hazards and King County maps including Miller Creek landslide scars;
- Conduct soil and erosion studies based on the fact that the EIS states the 1952 data is believed to be invalid for the area nort of South 192nd Street (IV. Section 19);
- Determine barging and conveyer belt impacts on wetlands both at the project site as well as the proposed borrow sites;
- Determine wetland impacts for strip mining permits;
- Complete the University of Washington earthquake fault study and resolution of current proposal to increase the Uniform Building Code for Puget Sound Seismic rating from 3 to 4;
- Determine North Parking Lot construction violations related to the Miller Creek mud slides, sinking of First Avenue South, and unusual water level fluctuations occurring in Angle Lake.
- Resolve data discrepancies in the EIS and 1998 NPDES. DOE, according to NPDES response to comments, is not apprised of the change of SDN 002 (outfall 007) to SDN 002 (outfall 11) but does report the renumbering of outfall 010;
- Reassess feasibility of a third runway in light of the fill transportation, cost, and availability problems that have worsened since the SEIS was written.
    1. The Department of Natural Resources, in a letter dated 18 June 1997, retracted their SEIS position, and now requires a Surface Mine Reclamation Permit in accordance with RCW 78.44 to strip mine Port Borrow sites 1, 2 and 3.
    2. The issuing of a new Maury Island permit is now complicated by high arsenic levels.
    3. The Port of Seattle has had to re-bid Phase 1 because cost estimates for 1 million cubic yards of fill and a retaining wall exceeded their budget by 23 to 48 %.
    4. Water related construction problems have significantly increased the costs of the new North Employees parking lot construction project.
    5. Upholding of the Des Moines Growth Management Act
- Conduct a Supplementary EIS with a much larger study area and using the revised elevation for a third runway. This SEIS should determine if State Highway 509 must be moved to avoid the high landslide risks if the currently planned retaining wall is built.

Same Standard for All

The Corps of Engineers (COE) must hold the POS to the same standards for a Section 404 permit that it has held other *private* applicants:

- Application by the Emerald Downs race track who was seeking to fill 17 acres of wetlands. When the race track sought the permit, they were required to comply with Section 404(b)(1) of the Federal Water Pollution Control Act. This required an alternative analysis that showed the proposed site was the only site that satisfied the practicable alternatives analysis and was the least environmentally harmful alternative. Within this analysis, every potential site in Western Washington was considered.
- Application for a landfill to be located in Pierce County was recently denied due to unacceptable wetlands impacts and the availability of other solid waste disposal alternatives. This despite the applicant's denial of the suitability of other solid waste disposal alternatives.

POS states in its application that it "is possible that some additional wetland areas and acreage could be identified when access is available to all wetlands in the project area." This alone makes the application unacceptable. Throughout the documentation supplied by the POS, the amount of wetlands varies significantly. Heretofore, no applicant has been given a Section 404 permit with the caveat that they may discover and fill an unquantifiable amount of wetland acreage if they suddenly discover "more" wetlands in the project area. The presence of the aquifer significantly increases the probability that additional wetlands will be identified.

The Department of Interior states, "The public notice and mitigation plan are inconsistent regarding the acreage and number of wetland impacts from the proposed project."[1]

General Comments

- The POS has a dismal environmental and mitigation compliance record.
- The EIS is being challenged in court. The number of operations, costs, and impact on the environment, including the endangered/threatened species and the aquifer, were grossly underestimated.
- The NPDES permit is being challenged and consequently the Section 404 permit cannot be issued until the NPDES permit is renewed.
- The "insignificant" construction to-date appears to have already adversely affected water levels and flooding patterns making prior hydrological analysis obsolete.
- The permit application contains no provisions for special monitoring of the project to ensure compliance with regulations and "best practices" are maintained. Hauling, to date, has not complied with the *recommended* EIS mitigation to restrict hauling to dry weather and use covered haul trucks.

[1] Letter from the United States Department of the Interior, Fish and Wildlife Service, North Pacific Cost Ecoregion, Western Washington Office to Colonel James M. Rigsby, District Engineer, Corps of Engineers, Seattle District, dated January 22, 1998.

Fill materials literally poured off the trucks on South 188th Street as the trucks approached the airport construction entrance.

- References within the EIS are obsolete: release of untreated de-icing agents already occurs; data on the hazards of de-icing agents is available (Canadian Study); and tests indicate high, unsafe fecal coliform found in the creeks surrounding the area are human in origin.
- The ramifications of the Kludt/Miller Creek settlement agreement are not addressed.
- The permit application erroneously states that the wetlands have a "low functional value" (Page 5).
- The "100 year flood" plain has been altered by construction near and at the airport demanding that a new study is needed before a Section 404 permit can be granted.
- Several of the proposed borrow sites are in the immediate vicinity of wetlands.

Specific Deficiency Categories

The following sections discuss, in some detail, why the permit fails to meet basic requirements. In addition, and for these reasons, the EPA stated, "Based upon our concerns and comments...we can not conclude that this project complies with the Clean Water Act Section 404(b)(1). Accordingly, the EPA recommends the permit be denied as proposed."[2]

Alternative Designs

According to the Clean Water Act, the COE may not issue the Section 404 permit if there are design options that would cause less damage to wetlands and streams. In reviewing the POS's application, POS has not examined or presented design options which could save the wetlands.

The POS could obviate the need to destroy the wetlands by:

- Making use of alternative airports already designated as reliever by the FAA, i.e. Paine Field located in Snohomish County, Renton Municipal Airport, Auburn Municipal Airport
- Making use of alternative airports, i.e. Bremerton Airport located in Kitsap County, McCord Airforce Base located in Pierce County, Moses Lake Airport located in Grant County.

[2] Letter from the United States Environmental Protection Agency, Region 10 to Colonel James Rigsby, District Engineer, Corps of Engineers, Seattle District, dated February 3, 1998.

- Constructing an entirely new airport. i.e. Centralia-Chehalis area with easy access to Interstate 5, rail road lines, and the state capital located in Olympia.

The EIS ignores cost -effective and environmentally preferred alternatives:

- Technology used by other airports to avoid expanding into heavily populated areas, nor
- Another Sea-Tac runway on existing property with updated technology which would meet its stated objectives and destroy little or no wetlands.

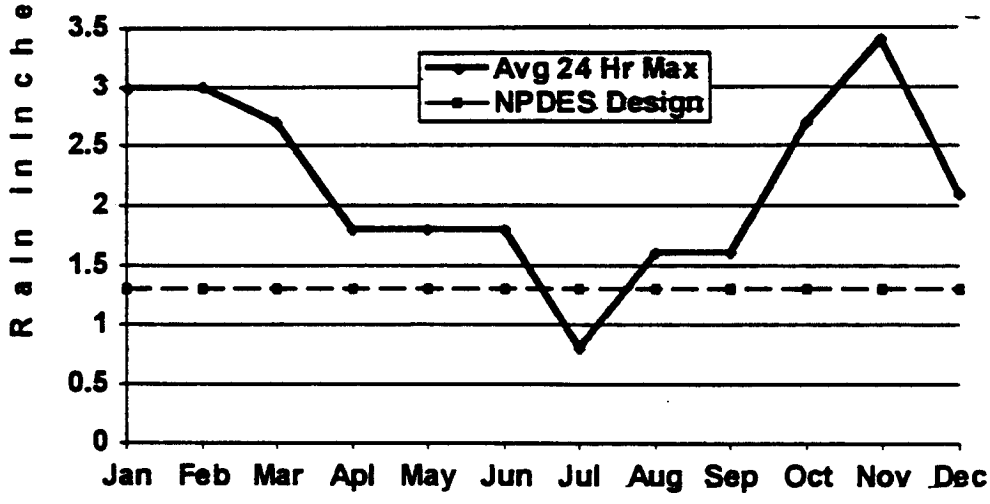
The SEIS states Sea-Tac Airport is surface transportation limited and furthermore, recommends the development of another EIS in 2000 - before a third runway is completed.

Replacement Plan

There are a number of wetlands within the Des Moines Creek and Miller Creek watersheds that could benefit from not only enhancement but also restoration. The POS has not provided an adequate explanation as to why these locations are not satisfactory for replacement of destroyed wetlands.

The existing wetlands mitigate the effects of significant rainfall as it slows the amount of water flow into the existing creeks, refer to Figure 1.

Figure 1 – NPDES Design information



The information required to produce Figure 1 was obtained from the Response summary (Page 107) comparing maximum 24 hour rainfall averaged for the period 1948 through 1990 (Federal Climate Complex Asheville).

The POS cites the FAA advisory regarding location of airports near (within 10,000 feet) aviary attractants. Existing wetlands are clearly within the area the POS claims is too close to runways.

- Where are the facts that substantiate bird hazards to aircraft due to existing wetlands?
- The FAA advisory (AC No. 150/5200-33) states the siting criteria are recommendations and guidance, and that new airport projects should not be built near these hazards.
- The FAA advisory is exactly as its name indicates, it is an **ADVISORY** it is not mandatory regulation!
- If the POS's logic is followed, then all attractants within 10,000 feet should be filled in/eliminated including Angle Lake, Lake Burien, Arrow Lake, Bow Lake, Lora Lake, Tub Lake, and Puget Sound.
- If the FAA advisory is followed, it would imply that increased airport traffic should not be encouraged within 10,000 feet of the existing Miller Creek and Des Moines Creek wetlands.

Replacing wetlands within the affected watershed is critical due to the damage which already has occurred over the past fifty years. These wetlands are Natures way of filtering and cleaning the water, like kidneys, that not only flows into the surrounding creeks but also into the aquifers from which we draw our drinking water supplies.

The POS suggestion that the wetlands be mitigated some twenty (20) miles from the destroyed area and watershed is unacceptable. The construction of new wetlands is fraught with failures and low success rates. The Department of the Interior states, "...the creation of wetlands at the proposed mitigation site would require experimental construction methods."[3]

The POS intends to give land neighboring the proposed mitigation site to the City of Auburn without limitations to control the use of land or maintain adequate water supply to the wetlands once they are built. In addition, the proposed wetlands site is within the Green River watershed which contains the chinook salmon proposed for listing under the Endangered Species Act.

The Department of Interior states, "The Service has previously raised concerns regarding the location and inadequacy of the proposed mitigation. ... The proposed mitigation does not adequately compensate for the direct and indirect impacts of the proposed project."[4]

Water Quality

With regard to the POS's Environmental Impact Statement (EIS), the POS documents the following:

- there will be events that cause more sediment to reach the affected streams,

[3] Letter from the United States Department of the Interior, Office of the Secretary to Federal Aviation Division, Northwest Mountain Region, dated April 8, 1997.

[4] Letter from the United States Department of the Interior, Fish and Wildlife Service, North Pacific Cost Ecoregion, Western Washington Office to Colonel James M. Rigsby, District Engineer, Corps of Engineers, Seattle District, dated January 22, 1998.

- more de-icing agents will reach the affected streams, and
- more heavy metals will reach the affected streams.

It is already well known that these contaminants harm aquatic life thereby disrupting the food chain causing further destruction to habitat that is already greatly stressed. These actions will violate the State of Washington's water quality standards and consequently the COE and Washington State Department of Ecology may not certify this project under these circumstances.

The POS also desires to relocate complete portions of Miller Creek. Much like the construction of wetlands issue, the construction of stream beds is an inexact art (not science). During the relocation effort, habitat and water quality will suffer further. The length and affect of these impacts are non-quantifiable.

The Washington State Department of Fisheries indicates, "there is a serious risk to water quality impacts to Des Moines Creek and Miller Creek especially erosion and sedimentation during construction."[5]

Construction delay impacts resulting in ALL traffic traveling at speeds of between zero (0) to twenty (20) miles per hour instead of current speeds, have not been considered in the water pollution calculations.

Local Regulations

According to COE regulations, a permit may not be issued without state, as well as, local authorizations. The affected airport communities (Cities of Burien, Des Moines, and Normandy Park) have ordinances which indicate that wetland mitigation must occur within the affected watershed. The obvious disregard for these regulations alone, is grounds for denial of the applicant's permit.

Vice President Gore announced the Administration's Clean Water Initiative in October 1997. This Initiative revises the former policy of no net-loss of wetlands. The goal of the initiative, is to provide a net increase of 100,000 acres of wetlands by 2005.

This permit application is completely contrary to:

- the Administration's Clean Water Initiative
- the Army Corps of Engineers' regulations
- the Environmental Protection Agency's guidelines
- the environmental health of the area
- the affected communities regulations
- the sentiment of the citizens

[5] Letter from the Washington Department of Fisheries to Permit Coordination Unit, Department of Ecology dated January 16, 1998.

Endangered Species Act

In July 1997, the National Marine Fisheries Service announced that numerous salmon runs in the Pacific Northwest, including Puget Sound chinook, Puget Sound chum, and sea-run cutthroat, were candidates for listing under the federal Endangered Species Act. The Water and Land Resources Division of the King County Department of Natural Resources has identified Puget Sound chinook, Puget Sound chum, and sea-run cutthrouat as present in Miller Creek. The potential listing had not been announced at the time of the POS EIS was completed and, consequently, the EIS completely fails to consider the impact on these potential endangered species.

It is apparent, that the National Marine Fisheries Service recognizes the importance of healthy salmon runs. It is unacceptable to consider destroying the wetlands and adversely impacting the headwaters of the creeks bearing potentially endangered salmon.

The National Marine Fisheries Services state, that "While there are currently no anadromous fish species listed pursuant to the Endangered Species Act (ESA) present in the project area, there could be in the near future or prior to completion of this project."[6]

[6] Letter from The United States Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Habitat Program/Olympia Field Office to Colonel James M. Rigsby, District Engineer, Corps of Engineers, Seattle District dated January 16, 1998.

Table 1- Species of Concern Listed as Potentially Occurring[7]

Common Name	Status*
Bald eagle	ST, FT
Peregrine falcon	SE, FE
Great blue heron	SM
Pileated woodpecker	SC
Marbled murrelet	SC, FC
Black tern	FC
Bull trout	FC
Mountain quail	FC
Northern red-legged frog	FC
Northwestern pond turtle	FC
Spotted frog	FC
Coho salmon	FC
Steelhead	FC
Chum Salmon	FC

- Status: SC = State candidate for endangered, threatened, or sensitive; SE = State endangered; SM = State monitor; ST = State threatened; FC = Federal Candidate for endangered, threatened, or sensitive; FE = Federal endangered; FT = Federal threatened

Trouts Unlimited, a local habitat enhancement group, has also reported coho salmon residing in both Miller and Walker Creeks.[8]

[7] Management Recommendations for Priority Species, Washington State Department of Wildlife 1991.

[8] Normandy Park Community Newsletter, "Miller and Walker Creeks Salmon Report" by Andy Batcho, November 1997.

Conclusion

CASE believes that we have made a compelling argument against granting of the Section 404(b)(1) permit. Our position is that there is already sufficient data available to warrant denying the permit. However, if it is the intent of the COE to grant the permit or delay its issuance, we respectfully request a special technical forum be held so that our technical experts can discuss the issues with COE experts. CASE has spent thousands of hours reviewing regulations, reports, and environmental impact statements related to the Sea-Tac expansion issue. These comments address only a portion of our concerns.

AR 036892

References

1. Letter from the United States Department of the Interior, Fish and Wildlife Service, North Pacific Cost Ecoregion, Western Washington Office to Colonel James M. Rigsby, District Engineer, Corps of Engineers, Seattle District, dated January 22, 1998.
2. Letter from the United States Environmental Protection Agency, Region 10 to Colonel James Rigsby, District Engineer, Corps of Engineers, Seattle District, dated February 3, 1998.
3. Letter from the United States Department of the Interior, Office of the Secretary to Federal Aviation Division, Northwest Mountain Region, dated April 8, 1997
4. Letter from the Washington Department of Fisheries to Permit Coordination Unit, Department of Ecology dated January 16, 1998
5. Letter from The United States Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Habitat Program/Olympia Field Office to Colonel James M. Rigsby, District Engineer, Corps of Engineers, Seattle District dated January 16, 1998.
6. Normandy Park Community Newsletter, "Miller and Walker Creeks Salmon Report" by Andy Batcho, November 1997.

AR 036893

DOE-G-5

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April 20, 1998

Mr. Jonathan Freedman
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Mr. Tom Luster
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Re: Supplemental Comments on the Port of Seattle Section 404 Permit Application
File No. 96-4-02325

Dear Mr. Freedman and Mr. Luster:

On behalf of the cities of Burien, Des Moines, Federal Way, Normandy Park, and Tukwila, Washington, and the Highline School District, individually, and collectively as the Airport Communities Coalition ("ACC"), we have commented previously on the Port of Seattle's ("Port") application for a Department of the Army Permit in accordance with Section 404 of the Federal Clean Water Act ("Port Permit Application")[1/] and on the associated Washington State

[1/] Letter from Peter J. Kirsch to Jonathan Freedman, United States Army Corps of Engineers (Jan. 20, 1998).

Water Quality Certification.[2] ("January Comments") Those comments are incorporated herein by reference.

This letter supplements the ACC's January Comments and, together with those comments, supports the ACC's oral testimony presented during the April 9th hearing.[3] In particular, this letter addresses in more detail issues raised in the ACC's prior comments as well as issues raised by new information that has become available since that time: (1) the sufficiency of proposed mitigation of adverse impacts of the Port's proposed fill activities; (2) the sufficiency of National Environmental Policy Act documentation supporting the Port's Permit Application; (3) compliance with local and state requirements; (4) the sufficiency of the Port's stream relocation plans; and (5) the consideration of impacts on endangered and threatened species. These issues must be addressed before the Corps may issue a Section 404 Permit to the Port.

I. The Port's Proposed Mitigation Project in the City of Auburn Is Not Sufficient to Minimize Potential Adverse Impacts on the Aquatic Ecosystem.

As noted in the ACC's January Comments, EPA Guidelines mandate that no discharge of dredged and fill material shall be permitted "if there is practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem,"[4] and unless "appropriate and practicable steps have been taken which will minimize potential adverse

[2] Letter from Peter J. Kirsch to Tom Luster, Washington State Department of Ecology (Jan. 21, 1998).

[3] In the notice of joint public hearing issued March 6, 1998 for the proposed construction at Sea-Tac International Airport ("Hearing"), the Army Corps of Engineers' ("the Corps") and the Washington State Department of Ecology ("Ecology"), requested that all important testimony be submitted in writing. The notice also stated that the Corps would accept written comments for ten days following the April 9th hearing and that Ecology would accept comments for twenty days.

[4] 40 C.F.R. § 230.10(a).

impacts of the discharge on the aquatic ecosystem."[5] The Corps's Memorandum of Understanding with EPA ("Mitigation MOU") provides a three-step sequence for developing appropriate mitigation measures to comply with the EPA Guidelines: (1) to the extent practicable, all adverse impacts must be avoided; (2) if adverse impacts cannot practicably be avoided, adverse impacts must, to the extent practicable, be minimized; (3) if adverse impacts cannot practicably be minimized, compensatory mitigation is required.[6] Further, the Mitigation MOU provides that where on-site compensatory mitigation is not practicable, off-site mitigation should be undertaken, when practicable, in the same geographic area (i.e., in close proximity and, to the extent possible, in the same watershed) where impacts occur.

A. The Port Has Not Selected the Least Environmentally Damaging Practicable Alternative Available or Taken Appropriate Steps to Minimize Impacts

The ACC continues to maintain that the Port has not adequately addressed the first and second steps in this sequence because practicable alternatives exist which would avoid or minimize adverse impacts on wetlands and aquatic resources. The Mitigation MOU clearly states: "Section 230.10(a) allows permit issuance for only the least environmentally damaging practicable alternative." Only then may the Corps require steps to assure "remaining unavoidable impacts then be mitigated to the extent appropriate and practicable." Finally, and only when those measures have been exhausted, may the Corps require compensation for aquatic resource values.

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[5] Id. § 230.10(d).

[6] See Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army Concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines (1990).

The ACC has described one practicable alternative to the Port's proposal which would avoid or minimize wetlands impacts in its January Comments—a shorter runway. The resource agencies likewise have suggested alternative project configurations which would avoid wetlands impacts.[7/] Until these alternatives have been implemented the Corps may not consider compensatory mitigation proposed by the Port.

Further, the Mitigation MOU notes that "[i]t is important to recognize that there are circumstances where the impacts of the project are so significant that even if alternatives are not available, the discharge may not be permitted *regardless of the compensatory mitigation proposed.*"[8/] The Miller and Des Moines Creek watersheds are small. These watersheds also have been subject to cumulative losses of wetlands over the years. Taking these two factors into account—the size of the watershed and the extent of prior wetlands lost—the impact of filling additional wetlands as proposed by the Port is very significant. If the only alternative to the loss of these wetlands in these watersheds is to deny the Port's Permit Application, the permit should be denied.

B. Viable Locations for On-Site and Same-Watershed Wetlands Replacement Are Available But Have Not Been Considered Seriously

Not only the ACC, but also the resource agencies have noted the Port's failure to undertake meaningful consideration of on-site and same-watershed locations for wetlands replacement and have recommended denial of the Permit as currently proposed. The Corps has committed to "fully consider" the views of these agencies when determining "whether to issue

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[7/] See Letter from Fred Weinmann, Acting Manager of the Aquatic Resources Unit, EPA, to Colonel James M. Rigsby, District Engineer, Seattle District Corps of Engineers (Feb. 3, 1998) (alternative location of the South Aviation Support Area); Letter from Nancy J. Gloman, U.S. Fish and Wildlife Service, to Colonel James M. Rigsby, District Engineer, Corps of Engineers, Seattle District (January 22, 1998) (reconfigure on-site borrow areas).

[8/] See also 40 C.F.R. § 230.10(c).

the permit, issue the permit with conditions and/or mitigation, or to deny the permit."[9/] In its comments on the Port's Permit Application, the Environmental Protection Agency wrote:

> The proposed off-site mitigation cannot mitigate for those specific lost aquatic resources in the Des Moines Creek and Miller Creek Watersheds. . . . There are a number of wetlands within the Des Moines Creek and Miller Creek watersheds that could benefit from enhancement and restoration.[10/] We recommend the Corps of Engineers look for on-site (in basin) aquatic resources mitigation opportunities that would provide environmental benefits.

The United States Fish and Wildlife Service concurred:

> Although the EIS documents state that on-site and off-site mitigation opportunities within the watershed are limited, mitigation sites closer to the impact site should be considered further. . . . Based on the information contained in the public notice, the Service believes that a permit should not be issued for the proposed project at this time. The applicant should evaluate off- and on-site alternatives to the borrow site, and identify mitigation sites within the same watersheds as the proposed impacts.[11/]

Contrary to assertions in the Port Permit Application, no federal law or policy prohibits the siting of replacement wetlands on site or within the Des Moines or Miller Creek watersheds. The Port relies upon a technical advisory publication issued by the Federal Aviation Administration which has no binding legal effect. As the resource agencies also have indicated, the practices and suggestions set out in the Federal Aviation Administration Advisory Circular for "Hazardous Wildlife Attractants on or Near Airports" ("FAA Guidelines") are

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[9/] United States Army Corps of Engineers, Regulatory Guidance Letter No. 92-1, Federal Agencies' Roles and Responsibilities (May 13, 1992).

[10/] See Letter supra note 7.

[11/] Letter supra note 7.

recommendations, not requirements.[12] These recommendations therefore cannot be used by the Port to avoid serious consideration of on-site or same-watershed mitigation options. The FAA Guidelines explicitly recognize that "exceptions to locating mitigation activities outside the separations identified . . . may be considered if the affected wetlands provide unique ecological functions."[13] As noted above, because of the small size of the Miller and Des Moines Creek watersheds and the extent of historic wetlands losses, the remaining wetlands have great ecological significance. Wetlands also can be managed to eliminate or reduce bird attractions. Strategies could include regular removal of saplings, netting, and use of electronic signals and other devices that discourage wildlife. Thus, adherence to the FAA Guidelines would not preclude on-site or in-basin mitigation as the Port claims.

The Port's failure to identify on-site or in-basin mitigation is not a mere procedural defect in the Port Permit Application. While the Port bears the burden of demonstrating the *absence* of both practicable on-site and same-watershed mitigation, there exist *both* on-site and same-watershed mitigation opportunities which are neither meaningfully analyzed nor even identified in the Port Permit Application. The ACC has had the opportunity to identify a number of such locations within the southern Des Moines Creek watershed alone which appear to be candidates for compensatory mitigation. Although necessarily preliminary (because the analysis is based strictly on aerial photographs and staff expertise), these locations are set out in the attached Exhibit and Figure 1. These locations were selected based on the following criteria: the sites are not currently developed; they do not contain existing wetlands; they are not steeply sloped; nor are they zoned to preclude wetlands restoration or construction.

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[12] Letter from Willie R. Taylor, Office of Environmental Policy and Compliance, United States Fish and Wildlife Service to Dennis Ossenkop, Federal Aviation Administration (July 16, 1997).

[13] FAA, Advisory Circular No. 150/5200-33, Hazardous Wildlife Attractants On or Near Airports (May 1, 1997).

As Figure 1 illustrates, even without considering the entire watershed, significant acreage is available for compensatory mitigation.

The Port identified many additional sites meeting this criteria in its Wetlands Mitigation Plan.[14] Citing federal wetlands mitigation banking guidance, the Port rejected the vast majority of these sites without further analysis simply because the sites were less than ten acres.[15] Even if the Port's mitigation plan qualified as a mitigation bank,[16] the guidance cited by the Port does not preclude consideration of these smaller sites. Federal guidance states only that "[i]t *may be* more advantageous for maintaining the integrity of the aquatic ecosystem to consolidate compensatory mitigation into a single large parcel or contiguous parcels *when ecologically appropriate.*"[17] Furthermore, the guidance maintains a preference for on-site and same-watershed mitigation even when it can only be accomplished through use of smaller sites. The guidance states, "credits may *only* be authorized when on-site compensation is either not practicable or use of a mitigation bank is environmentally preferable to on-site compensation."[18] Further, "compensation for wetlands impacts should occur, where appropriate and practicable, within the same watershed as the impact site."[19] As the resource agencies have commented, and

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[14] See Parametrix, Inc., Wetland Mitigation Plan for Proposed Master Plan Update Improvements at Seattle-Tacoma International Airport, Figure 3.2-2a, -2b (Dec. 1996).

[15] See id. at 3-21.

[16] As a threshold matter, the Port's proposal does not qualify as a mitigation bank because it would not "provid[e] compensatory mitigation *in advance* of authorized impacts to similar resources" as typically required. 60 Fed. Reg. 58605, 58607 (Nov. 28, 1995).

[17] 60 Fed. Reg. at 58607 (emphasis added).

[18] Id. (emphasis added); see also id. at 58611.

[19] Environmental Protection Agency and Army Corps of Engineers, Memorandum to the Field, Establishment and Use of Wetland Mitigation Banks in the Clean Water Act Section 404 Regulatory Program (Aug. 23, 1993) (emphasis added).

the ACC agrees, off-site and out-of-watershed mitigation is not environmentally preferable or ecologically appropriate in the case of the Des Moines and Miller Creek watersheds.

The Port has refused to include local communities in efforts to identify possible locations—such as those depicted in Figure 1—to develop on-site and same-watershed mitigation alternatives. Yet, the affected Des Moines and Miller Creek watersheds are largely located within our cities and therefore the ACC communities have the greatest stake in the outcome of the Corps of Engineers' permitting process. Further, the Port focused its search on the Green River Valley, and admittedly did not examine same-watershed mitigation sites in any detail.[20/] In fact, the Port summarily dismissed consideration of same-watershed mitigation sites in its Final Environmental Impact Statement simply based upon the assertion (made without apparent supporting evidence) that the basin is largely developed and sites of sufficient size do not exist.[21/] Until the Port demonstrates that on-site and same-watershed mitigation is not feasible, issuing a permit for the Port's project as currently proposed would be contrary to Corps regulations, the Mitigation MOU, and to the Corps's stated policy of giving full consideration to the views of the resource agencies.

C. The Port's Proposed Mitigation Project in the City of Auburn is Unlikely to Succeed

On March 18, 1998, the City of Auburn and the Port entered into an Interlocal Agreement for the implementation of the Port's proposed mitigation project ("Agreement").[22/] That Agreement was executed prior to the public comment on, and interagency review of, the

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[20/] See Parametrix, Inc., Environmental Report: Port of Seattle Master Plan Improvements Wetland Mitigation Site, Auburn, Washington 3 (January 15, 1996).

[21/] FEIS, IV.19-8, Appendix P at 3-12.

[22/] See Interlocal Agreement Between the City of Auburn and Port of Seattle Regarding Wetlands Construction, Infrastructure, Improvements, and Property Transfer (March 18, 1998).

Ports proposed mitigation plan mandated by federal law. Under the Agreement, the Port agrees to contribute to infrastructure improvements in the vicinity of the wetlands property and to convey "excess" property not needed for the wetlands plan ("Excess Area")[23/] in exchange for relief from assessments and processing of zoning changes, permits and approvals in "a timely, reasonable and standard manner." However, in this transaction, the Port has neglected terms vital to assuring the long term viability of the Port's mitigation plan.

First, the Agreement notes that Auburn has expressed interest in using the excess property "in conjunction with its infrastructure improvements in the area." These improvements include water and sewer conveyance systems; regional stormwater detention, water quality, and conveyance facilities; and two additional traffic lanes on a neighboring street. Under the Agreement, "Auburn will use, trade, sell, or otherwise manage or dispose of the Excess Area, and will expend any payments of cash value of the Excess Area, solely for the benefit of the [improvements]." The Agreement provides no restrictions on the use of the Excess Area, however, and thus provides no mechanisms, such as deed restrictions and conservation easements, to assure that future uses are not inconsistent with success of the wetlands. It is important also to recognize that the proposed funding of infrastructure improvements for the benefit of the City of Auburn has no demonstrable nexus either to the wetlands functions which are supposed to be fulfilled or to the operation of the airport. While such compensatory payments may be a wise political action needed to secure support for the Port's airport redevelopment project, the payments are not in any manner related to the proposed mitigation function.

Second, the infrastructure improvements adjacent to and "benefiting" the property, including street expansion and stormwater detention facilities, are themselves likely to

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[23/] If the Excess Area acreage is less than 16 acres, Auburn may elect to receive cash payment in lieu of the property.

adversely affect the hydrology of the area and thus the viability of wetlands. These improvements are to be constructed "as shown on Auburn's Comprehensive Plan or as designated in the Special Planning Area." There are no provisions to assure that the ultimate design of these improvements will accommodate the needs of the mitigation project.

Finally, the Agreement indicates that an ongoing water supply and maintenance of sustainable wetlands hydrology may be a significant problem for the project. The Agreement provides for Auburn to provide a temporary easement across the excess property and will make available water for irrigation of the constructed wetlands during the "initial growing seasons following planting." The need for supplemental water to establish wetlands vegetation suggests that sufficient water may not be available to sustain wetlands in the proposed location over the long term. Further, in the event that the wetlands are not self-sustaining, the Agreement does not provide long term assurance of water service to the wetland.

Without provisions to address surrounding land use and assure water supply, the Port has no legal ability to assure the viability of the proposed mitigation project. The terms of the Agreement, in conjunction with technical issues raised in the ACC's January Comments and comments of the resource agencies,[24] substantially diminish the chances that the Port's mitigation plan will succeed.

As the Corps is aware, the federal government recently announced its Clean Water Act Action Plan which calls for attaining a net *increase* of 100,000 wetland acres per year by the year 2005. This goal is to be achieved in part through "ensuring that existing wetland programs

[24] See Letters supra notes 1, 2 and 7.

continue to slow the rate of wetland losses."[25] To issue this permit as proposed would be contrary to this goal and to Administration policy.

II. A Supplemental Environmental Impact Statement is Necessary to Support the Port's Permit Application

The Public Notice of Application for Permit issued December 19, 1997, indicates that the Corps was a cooperating agency in preparation of the Final Environmental Impact Statement and Supplemental Environmental Impact Statement prepared for the Port's proposed Master Plan Improvements ("EIS Documents") which covers activities included in the Port's Permit Application. Where, as here, another agency is a lead agency in preparing an EIS, Corps regulations require that the Corps provide the necessary environmental information and work with the lead agency to "insure that agency's resulting EIS may be adopted by the Corps for purposes of exercising its regulatory authority."[26] As currently written, however, the EIS documents are inadequate to support the Corps's permitting decision.

It is important to recognize that the propriety of NEPA documentation must be measured independently by the Corps and the FAA. NEPA regulations promulgated by the Council on Environmental Policy, and implemented under Corps regulations,[27] specifically require that an EIS "rigorously explore and objectively evaluate all reasonable alternatives" and include in its discussion of alternatives "appropriate mitigation measures not already included in the proposed action or alternatives." 40 C.F.R. § 1502.14(f). Regardless of whether the documentation satisfies FAA requirements (especially with regard to examination of alternatives

[25] 63 Fed. Reg. 14109, 14111 (March 24, 1998).

[26] 33 C.F.R. Part 325, Appendix B.

[27] 33 C.F.R. Part 325, Appendix B.

to the proposed action, as defined for FAA purposes), the Corps must independently determine whether the documentation adequately examined alternatives *from the perspective of a proposed wetlands permit*. While the Corps's statutory mandate in this context is considerably narrower than that of the FAA, it also is markedly different: there may exist sub-alternatives (e.g., alternative ways of designing each reasonable alternative) which should have been examined for the purposes of the Corps's review.

As discussed in detail above, the EIS documents fail to provide "a clear basis for choice among options," as required for purposes of the Corps's Section 404 permit decision, both because the EIS Documents fail to (1) address reasonable alternatives which could avoid wetlands impacts; and (2) discuss in adequate detail on-site and same-water shed mitigation options. In addition, in March, three species that have been identified as using either the project area or the Puget Sound, downstream of the project area, were proposed for listing as endangered or threatened species—chinook and chum salmon and steelhead trout.[28] The impact of the proposed Master Plan Improvements on the designated evolutionarily significant units or critical habitats of these species were not addressed in the EIS Documents. Regardless of whether such omissions were permissible under FAA regulations (an issue which presently is under litigation), the omissions clearly were impermissible under the Corps's NEPA obligations.

Where the Corps finds "substantial doubt as to the technical or procedural adequacy of, or omission of, factors important to the Corps decision" in an Environmental Impact Statement prepared by another federal agency pursuant to the National Environmental Policy Act, the Corps must supplement those documents.[29] Likewise, it may be necessary to

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[28] 63 Fed. Reg. 11482 (March 9, 1998) (chinook salmon); 63 Fed. Reg. 11774 (March 10, 1998) (chum salmon); 63 Fed. Reg. 11798 (March 10, 1997) (steelhead trout).

[29] 33 C.F.R. § 320.21.

supplement NEPA documents where those documents have not "considered the alternatives in sufficient detail to respond to the requirements of the [] Guidelines." [30] The deficiencies in the EIS Documents thus require the Corps to prepare a supplement before it can adopt these documents to support its Section 404 determination. Failure to address these deficiencies would be grounds to overturn the Corps's permitting decision.[31]

III. The Port Has Failed to Comply With State and Local Wetlands Permitting Requirements

As the ACC noted in its January Comments, Corps regulations prohibit granting a Section 404 permit where federal, state, and/or local authorization and/or certification has been denied for activities which also require a wetlands permit.[32] When these other authorization/certification processes are proceeding concurrently, Corps regulations provide that any permit issued should "as appropriate, be conditioned" or, "the district engineer may decide that due to the nature or scope of a specific proposal, it would be prudent to defer taking final action until another agency has acted on its authorization."[33] In this instance, deferral or appropriate conditioning of the Port's Section 404 permit would be in order.

Washington's Shoreline Management Act establishes mandatory local government programs to regulate "shorelines of the state within its jurisdiction."[34] Shorelines of

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[30] 40 C.F.R. § 230.10(a)(4).

[31] See National Wildlife Federation v. Marsh, 721 F.2d 767, 783-84 (11th Cir. 1983) (SEIS required for mitigation options not addressed in EIS); see also, Oregon Natural Resources Council v. Harrell, 52 F.3d 1499, 1506 (9th Cir. 1995) (remand for consideration of new mitigation information and determination of need for SEIS).

[32] 33 C.F.R. § 320.4(j)(1).

[33] Id. § 325.2(d)(4).

[34] R.C.W. 90.58.090(1).

the state are defined to include "the water areas of the state, including reservoirs, and their associated wetlands, together with the lands underlying them."[35] "Substantial development" in these areas (which includes fill activities with a total value greater than $2,500) may not be undertaken without a permit from the appropriate local government entity.[36]

Despite these clear requirements, the Port Permit Application omits any meaningful discussion of state or local requirements. The Port has dismissed local ordinances by stating (without any evidentiary support) that "it will not be possible to replace filled wetlands in the same sub-basin as the wetlands to be filled due to sitting [sic] criterion."[37] To date, the Port has either not yet obtained or not attempted to obtain permits from local jurisdictions in which affected wetlands are located. Nor do these permitting requirements appear to be acknowledged in the Port Permit Application.[38] Since the regulations of the municipalities of Des Moines and SeaTac (in which wetlands currently proposed to be filled are located) require mitigation either in the same watershed or sub-basin,[39] the Port has no reasonable basis for determining whether it is likely to receive the necessary local approval for its mitigation plan as proposed. Without obtaining these permits, or without some reasonable assurance that such local permits are forthcoming, the Corps cannot issue the Port's Section 404 Permit.

Likewise, Washington gives cities, including the ACC cities, power to "regulate and control, and to prevent and punish, the defilement or pollution of all streams running through

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[35] Id. 90.58.030(2)(d).

[36] Id. 90.58.140(2). This definition could exclude certain wetlands depending on the mean annual flow of the stream segment associated with the wetland.

[37] Final SEIS at F-127.

[38] See Port Permit Application, Attachment D.

[39] See ACC, Comments on the Draft EIS at 5.6-4 to -5.

or into its corporate limits, and for the distance of five miles beyond its corporate limits."[40] As the ACC has set out in its previous comments, the Port's proposed expansion is anticipated to create significant degradation of water quality in the Des Moines and Miller Creeks. Surrounding cities possess the power to prevent the pollution of these streams, and deny authorization to proceed.

IV. The Port Has Provided Insufficient Information to Evaluate the Effects of Its Proposed Stream Relocation Plans

The Corps's Public Notice of Application for Permit states that, in addition to filling and rechanneling of Miller Creek and drainage channels in the Miller Creek drainage, the Port proposes to fill and rechannel about 2,200 feet of Des Moines Creek. Yet, while the runway extension and development of the South Aviation Support Area which would require the relocation of Des Moines Creek are scheduled as Phase I construction activities,[41] the Port has provided no information concerning the Des Moines Creek rechanneling. In fact, the Port's Permit Application makes no mention of fill and rechanneling of Des Moines Creek and specifically notes that "[i]mpacts to Des Moines Creek will occur in later phases of construction activity. . . . therefore a separate permit application for construction in Des Moines Creek will be submitted later once precise impacts to Des Moines Creek and its tributary are known."[42] Reconstruction of a natural stream bed is a difficult task and, as the Port admits, fill associated with these activities has "potential long term impacts on fish and aquatic biota."[43] Without

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[40] R.C.W. 35.22.280(29) (first-class cities); 35.24.290(3)(third-class cities).

[41] See FEIS at II-44 (SASA part of Phase I improvements); IV.16-13 (SASA requires relocation of Des Moines Creek).

[42] Port Permit Application, Attachment B.

[43] FEIS at IV. 16-13.

more information to evaluate this proposed filling and rechanneling in Des Moines Creek, the Corps cannot approve this activity under the Port's current permit application. (Regardless of when the Port proposes the channelization project, the impacts of that project should be examined by the Corps as cumulative projects or cumulative impacts under NEPA – an area of analysis which is especially crucial in light of the federal government policy of avoiding and reversing the national trend toward allowing cumulative wetlands impacts.)

V. The Port Has Provided Insufficient Information to Evaluate the Effects of the Proposed Airport Expansion on Endangered Species

Section 7 of the Endangered Species Act requires an analysis of the effects of a major construction project on any federally listed or proposed endangered or threatened species that may use the project area.[44] The status of species, including chinook and chum salmon and steelhead trout, has only recently become known and clearly constitutes new information made available since the Port completed its NEPA documentation on the larger airport redevelopment project.[45]

In closing, the ACC emphasizes that the burden of proof to demonstrate compliance with applicable permitting requirements rests with the applicant. Where the applicant has provided insufficient information to determine compliance, these regulations require that no permit be issued.[46] As set out in these and the ACC's January Comments, the Port has failed to carry this burden. Because the Port's Permit Application fails to demonstrate compliance with applicable regulations and is likely to result in a net loss of wetlands, the Corps

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[44] 16 U.S.C. § 153.6

[45] See supra note 25

[46] 40 C.F.R. § 230.12(a)(3)(iv).

cannot and, for policy reasons, should not issue a Section 404 permit for the proposed Sea-Tac expar ion as currently proposed.

Sincerely,

Peter J. Kirsch

EXHIBIT 1

PRELIMINARY INVENTORY OF
POTENTIAL WETLAND MITIGATION SITES IN THE DES MOINES WATERSHED
PORT OF SEATTLE
PROPOSED MASTER PLAN IMPROVEMENTS

This preliminary site inventory was prepared using aerial photographs taken in April 1997 for the area of the Des Moines Creek watershed located to the south of South 176th Street. These sites are illustrated on the attached Figure 1. Based on aerial photographs, these sites appear to vacant or to contain minimal improvements. The sites do not include known wetlands and are located outside of areas mapped as airport clear zones and noise remedy areas. The majority are located between five and ten thousand feet from existing runways. In most instances, wetlands creation or restoration would not be precluded by current zoning classifications. Site boundaries illustrated on Figure 1 and acreage estimates are not exact. While some sites may be more suitable than others for compensatory wetland mitigation, all deserve careful scrutiny as potential wetland mitigation sites before any properties outside the Des Moines Creek watershed are considered.

Figure 1 Wetland Mitigation Site Number	Jurisdiction	Description
1	SeaTac	This site is currently zoned for industrial uses and is somewhat less than ten acres in size.
2	King County	This site is roughly ten acres in size.
3	King County	This site is roughly ten acres in size.
4	Des Moines	This site is somewhat larger than ten acres and is located near smaller wetlands that would be affected by proposed Borrow Area 3 development. The current zoning is for single family residential uses.
5	Des Moines	This site is roughly thirty acres in size. The current zoning is for single family residential uses. The site is located close to areas of smaller wetlands which would be impacted by development of proposed Borrow Areas 3-4.
6	SeaTac	This size is zoned for urban low density residential and airport/aviation commercial uses. The site is roughly twenty acres in size and shows good potential for enhancing and expanding of existing wetlands within the site.
7	SeaTac	This site is zoned for urban low density residential uses and is less than ten acres in size. This site is located near proposed Borrow Area 3.
8	SeaTac	This site is zoned for urban low density residential uses and is roughly ten acres in size. This site is located near proposed Borrow Area 3.
9	Des Moines	This site is zoned for single family residential uses and is between twenty and thirty acres in size. It is located near Des Moines Creek and appears to be in the same catchment as some smaller wetlands that would be affected by development of proposed Borrow Areas 1-3.
10	Des Moines	This site is zoned for residential attached and single family residential uses and is less than ten acres.
11	Des Moines	This site is zoned for single family residential uses and is roughly ten acres in size. This site is located south of South 216th Street close to the area of small wetlands that would be affected by development of proposed Borrow Areas 1-4.

AR 036911

Figure 1 Wetland Mitigation Site Number	Jurisdiction	Description
12	Des Moines	This site is zoned for multifamily residential uses. The site is smaller than ten acres in size and located south of South 216th Street close to the area of small wetlands that would be affected by development of proposed Borrow Areas 1-4.
13	SeaTac	This site is zoned for an aviation business center uses. The site is smaller than ten acres and located just north of Bow Lake.
14	SeaTac	This site is zoned for urban low density residential uses. The site is somewhat smaller than ten acres in size and located near Bow Lake.
15	SeaTac	This site is zoned for urban low density residential uses. The site is larger than twenty acres and is located near Bow Lake. This site shows good potential for expanding and enhancing smaller wetlands located within the site.
16	SeaTac	This site is zoned for urban low density residential uses. The site is located just south of 188th Street and is larger than ten acres in size.
17	SeaTac	This site is zoned for aviation operations/aviation business center uses and is roughly twenty acres in size.
18	SeaTac	The site is zoned for aviation business center uses and is somewhat larger than ten acres. It is located near smaller wetlands that would be affected by proposed Borrow Area 1. This site could be expanded to include existing wetlands to the west.
19	SeaTac	This site is zoned for medium density urban residential uses. It is located between Route 99 and Interstate 5 and is roughly ten acres in size.
20	SeaTac	This site is zoned for high density urban residential uses. It is located between Route 99 and Interstate 5 and is roughly ten acres in size.
21	SeaTac	This site is zoned for high density urban residential uses. It is located between Route 99 and Interstate 5 and is somewhat smaller than ten acres in size.
22	SeaTac	This site is zoned for aviation business center and community business center uses. It is located to the west of Route 99 near smaller wetlands that would be affected by proposed Borrow Area 1 development.
23	SeaTac	This site is zoned for urban medium and high density residential uses. This site is larger than ten acres in size and is located between Route 99 and Interstate 5. Sites 23 and 24 could be expanded into one large mitigation site.
24	SeaTac	This site is zoned for urban low and high density residential uses. The site is somewhat smaller than ten acres and is located between Route 99 and Interstate 5. Sites 23 and 24 could be expanded into one large mitigation site.
25	Des Moines	This site is zoned for single family residential uses. It is located just north of 216th Street, appears to be located in the same catchment as some smaller wetlands that would be affected by development of proposed Borrow Areas 1-3.

AR 036912

DOE-G-6

Seattle Community Council Federation
3125 W. Montlake Pl. E.
Seattle, Washington 98112

29 April 1998

Tom Luster
Permit Coördination Unit
Department of Ecology
Box 47703
Olympia, Washington
WA 98504-7703

Re: Comments on §401 permit application, Port of Seattle,
for Seattle-Tacoma International Airport

Dear Mr Luster:

I have the honor to transmit to you herewith the comment of Seattle Community Council Federation on the pending application of the Port of Seattle for issuance of a permit pursuant to the provisions of section 401 of the federal Clean Water Act and related State statutes & regulations.

Our organization urges that the permit application be denied, for the reasons set forth in the comments.

Yours very truly,

Jorgen Bader
President

encl

L98-119

COMMENTS OF SEATTLE COMMUNITY COUNCIL FEDERATION ON THE PORT OF SEATTLE'S APPLICATION FOR ISSUANCE OF A PERMIT BY THE DEPARTMENT OF ECOLOGY PURSUANT TO THE PROVISIONS OF SECTION 401 OF THE FEDERAL CLEAN WATER ACT

1. INTRODUCTION

1.1 Introduction – subject matter. Seattle Community Council Federation submits these comments on that certain application by the Port of Seattle ('POS' or 'Port')) to the Department of Ecology for issuance of a permit by that Department to the Port pursuant to the provisions of §401 of the federal Clean Water Act, & related federal regulations and State statutes & regulations. This permit is necessary in order for the Port to proceed with its plans for massive wetlands fill and channelization of streams on lands that it hopes to acquire as the site for its proposed additional ('third') runway at Seattle-Tacoma International Airport, as detailed in the Airport's recent Master Plan Update, and the six environmental-impact studies related thereto that have been published over the years.

1.2 Identity & interest of commenter. Seattle Community Council Federation is the city-wide coalition of Seattle community clubs, community councils, & and neighborhood associations. We have participated throughout the Master Plan Update ('MPU') process, and predecessor public processes concerned with Seattle-Tacoma International Airport, & with transportation planning for the Central Puget Sound subregion. We have previously submitted comments on Sea-Tac expansion environmental impact statements, on the pending §404 permit application of the Port to the U.S. Army Corps of Engineers, & on the pending application of the Port to use passenger facility charges as security for issuance of long-term bonds for financing of various capital projects under the Master Plan

Update. In addition, we have been litigants in lawsuits involved with transportation planning projects, both highway and air traffic. It would be tedious, & not particularly useful, to detail the many activities of our group, & of our member organizations, with regard to aviation issues over the years. Suffice it to say that we, as a federation of neighborhood groups, have a long-standing, active interest in transportation, & especially aviation, issues.

Actions that would enable the misguided expansion of Sea-Tac Airport would have a direct & deleterious impact – for which no mitigation has been proposed, let alone been put in place – on residential & commercial neighborhoods in many parts of Seattle. All arriving & departing flights under what are called 'North flow') (good-weather) conditions fly over Seattle neighborhoods. Noise from Sea-Tac activities has increasingly been a concern for Seattle residents & their neighborhood groups in the last 15 years or so, as the volume of Sea-Tac flights ever increases, with resultant higher levels of annoying noise, & increasing amounts of air pollution from overflying jet aircraft. The Department of Ecology should have a sharp focus on the larger issues posed by possible enablement of expansion of the overcrowded Sea-Tac campus, located as it is, far too close to surrounding cities & unincorporated conurbations, & operated, as it is, with scant regard for its impacts on those who benefit the least from it.

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1.3 Abbreviations. The following abbreviations are used in these comments:

EIS	Environmental impact statement
FAA	Federal Aviation Administration
FEIS	Final environmental impact statement [for the Sea-Tac Airport Master Plan Update, unless otherwise specified]
FSEIS	Final supplemental EIS for the Master Plan Update
MPU	Master Plan Update (for Sea-Tac Airport)
POS	Port of Seattle, owner/operator of Sea-Tac Airport
SEIS	Supplemental environmental impact statement (for the Sea-Tac Airport Master Plan Update)

2. SUBSTANTIVE COMMENTS

A. Examination of alternatives

2A.1 Ecology should take a fresh, & skeptical, look at the justification for, & need for, the project. Ecology should take a fresh, & skeptical, look at the entire justification for this grandiose project. The project is NOT just to fill in some marshes & tinker with some streams. It is not even just a project to increase the amount of pollutants discharged from the proponent's present & future land-holdings into the State's surface & underground waters. Those are incidental effects. But they can only be justified, if they can be justified at all, on the basis of some over-riding public benefit that outweighs the statutory requirements for protecting surface & underground waters.

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2A-2. Fresh look will show systematic exclusion of alternatives. Has the proponent looked all reasonable alternatives to the proposed, environmentally-damaging actions? The proponent will argue that it is required only to look at different ways to fill in wetlands, different ways to discharge pollutants into Puget Sound, & so forth. Ecology's correct position would be to say that the proponent must show that it has looked at all reasonable alternative ways to meet its underlying claimed need for any action at all. Such a review will show the following:

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* The original planning for the third runway was a joint effort of the proponent and the Puget Sound Regional Council (which received a handsome fee from the Port for producing a report favorable to a third runway at the Airport). In that study, known in PSRC jargon as 'FlightPlan', PSRC systematically excluded from consideration all alternatives to Sea-Tac expansion that could take place outside the geographical area covered by the PSRC, i.e., the Port & PSRC decided in advance that they would not examine any potential airport site to handle increased air traffic, if such sites were located in 35 of Washington's 39 counties. The third runway is supposedly needed to meet an increase, a regional increase, in *demand* (in the economist's sense of that word) for commercial air travel on scheduled airlines. Much of that demand comes from persons resident outside the

PSRC area (as departing passengers) and from persons bound for destinations outside the PSRC area (as arriving passengers).

The result of that systematic exclusion was to remove from review the possible use of the existing, & underused, international airport owned & operated by Grant County (with its 13,000-foot runways & huge campus), and also to exclude consideration of the possible development of potential sites in Thurston, Lewis, or Greys Harbor County (although local leaders in each of those counties have sought such development).

* That left possible sites for airport expansion in the PSRC area, & the PSRC area only. The PSRC leadership then systematically excluded from consideration all sites in their own respective counties – other than King County. Excluded by definition were sites at Arlington (Snohomish County),Paine Field (Snohomish County), the Kitsap Airport (Kitsap County), and all sites in Pierce County. It is no accident that the principal officers of PSRC at the time were prominent local politicians from Snohomish and Pierce Counties, fiercely protecting their constituents from the harms of airport expansion, & cheerily comfortable with dumping all those harms on King County (& a small area of Pierce County very close to Sea-Tac, whose leaders, to the extent that they were permitted any voice in PSRC, voted <u>against</u> Sea-Tac expansion). 5

* The Port then required that consideration of possible sites in King County be restricted to its own location.

This process was not a process of examining alternatives, but a process of weeding them out in a sustained, deliberate manner, to drive to the predetermined desired result. Ecology should not be fooled. The application should be rejected.

B. PURPOSE & NEED

2B-1. <u>Purpose & need.</u> The purpose & need of the project (Sea-Tac expansion have not been shown. Please refer to our comments on this subject during the review of the draft supplemental environmental impact statement for the MPU. These comments are reproduced in Appendix G to 6

the final supplemental EIS, at 3 FSEIS G-365, with the discussion of Purpose & Need found at our pages 11-13, reproduced at FSEIS pages G-370 & 371. By this reference, we incorporate those comments herein as if they were set out in full here.

In conjunction with the purpose & need for the project, it is highly important to bear in mind that according to the proponents themselves (FAA & POS), the exact same number of commercial aircraft & the exact same number of travellers will use the Airport if the third runway & related projects are built as would use it if the runway &c were not built. This is stated over & over again, often in vague language. Table 2-6, at 1 FSEIS 2-14, however, shows very clearly that the total number of passengers using Sea-Tac is predicted to be the same in the years 2005 and 2010 under both the 'Do Nothing' and 'Build' ('with Project') alternatives. (Only the years 2005 and 2010 were analyzed by the EIS team, whoever they were: "... year 2020 was determined not to be reasonably foreseeable at this time", 2 FSEIS Appx. D-1.

It is said in Appendix A (1 FSEIS A-5), with respect to the Sea-Tac Master Plan Update forecast, "that forecast did not underestimate the number of operations that would occur due to the construction of a new runway" [emphasis in original].

The comments quoted above only repeat what was said by the anonymous preparers of Appendix R of the FEIS:

> "It is the professional judgment of the FAA, the Port and its technical consultants that it is reasonable to assume for the purposes of this environmental analysis that the same number of operations would occur with and without the proposed new runway." 4 FEIS R-5.

7

In that case, there is no justification for building the project, & thus there is no justification for licensing, as the pending application requests, the environmental damages anticipated from construction.

Of course, the proponents of the project do put forward an ostensible justification for the project – reduction of 'delay'. The reader is invited to find a straightforward definition of 'delay', or a coherent discussion of the 'delay' justification, in any of the EISes. The major scheduled airlines, who will be asked to fund about one-third of this project, & whose approval has been sought for use of passenger-facility charges ('head taxes') for paying for roughly another third of the project, have openly been skeptical. The Department is requested to review the airline responses, as summarized by the Port in its pending application for leave from the FAA to pledge future PFCs to secure a hoped-for bond issue for construction costs. See the last document behind Tab C of the Passenger Facilities Charge application, especially at p.6. One would think that major carriers (Delta, United) would know whether they are experiencing a delay problem that is sufficient to justify this project. They say that they are not. Ecology should reach the same conclusion.

8

C. SPECIFIC WATER-QUALITY CONCERNS

2C-1. Interest of Federation. In addition to our concern about the overall impact of the project, especially on those of us who live or work in Seattle, we also have a generalized concern for the health of the waters of the State, & for the integrity of the Highline aquifer that our water department draws from. We have a more generalized concern that environmental issues in our State are addressed openly, fairly, leading to appropriate results. This application, & its companion application pending before the U.S. Army Corps of Engineers, pursuant to §404 of the federal Clean Water Act, if granted, would lead to serious degradation of water resources.

9

2C-2. Release of pollutants forbidden, but applied for. We understand that under Washington's regulatory scheme, the waters of the Puget Sound are classified as Class AA surface waters, the classification requiring the greatest degree of protection. Because Miller, Walker, and Des Moines Creeks all flow into the Sound, they too are considered to be Class AA waters. The applicant seeks to discharge pollutants into these waters.

10

The applicant suggests that it is authorized by its NPDES permit to engage in these activities. But that permit has been severely criticized for its many shortcomings, & is now being appealed. Given the flaws in the permit, the appalling 50-year track record of the Port as a polluter, & the recent history of the Department's lax, inept, enforcement of water-quality requirements for Port construction projects, it seems almost absolutely certain that the appellants will prevail, just as they did the last time the Department issued an inadequate NPDES to the Airport, & the community appealed. The Department should not 'bootstrap' issuance of the §401 permit by aid of its inadequate NPDES permit. Independent examination of each water-quality issue should be undertaken in this proceeding, rather than blind reliance on the prior permit. 10

2C-3. Out-of-watershed mitigation for stream damage. We think it a very bad precedent to permit this white elephant of a project on the basis of mitigation of stream damage by out-of-basin remedies. The impacted creeks will not be made whole by actions in other basins. Others have &will, address this point in more detail, & the Department has available to it all the comments on this point made at the joint public hearing on 9 April, & the written comments lodged with the Corps of Engineers. The Department should consider all those comments as being lodged with it as well. 11

2C-4. Airborne pollution of waters. Of particular concern to us is the issue of airborne pollution. We KNOW that aircraft using Sea-Tac Airport and King County Airport not only blanket the ground with engine exhausts but also – despite all the official denials – that fuel dumping over our City is common-place. Anyone with eyes to see and nose to smell can attest to these common phenomena (which perhaps explains why no-one in authority locally will do relevant monitoring). If airborne pollution happens as far from Sea-Tac as Seattle, it surely happens over the Miller/Walker and Des Moines watersheds closer to the Airport (& also over watersheds that drain into the Duwamish). The Department needs to conduct actual field studies to determine what is falling out of the skies near the Airport, to be washed into surface streams, &, ultimately, the Sound, & also to filter down into the ground waters. What is in place to mitigate harms from these sources? Nothing adequate, that we can see. In the absence of adequate 12

12 studies & mitigation, the application should be denied (as should the companion §404 permit).

DOE-B-1

SEGALE BUSINESS PARK
A [illegible] LIMITED PARTNERSHIP TRADE NAME

April 9, 1998

U.S. Army Corps of Engineers
Regulatory Branch
Post Office Box 3755
Seattle, Washington 98124-2255
ATTN: Jonathan Freedman, Project Manger

Washington State Department of Ecology
Permit and Coordination Unit
Post Office Box 47600
Olympia, Washington 98504-7001
ATTN: Tom R. Luster, Environmental Specialist

Re: Port of Seattle
Seattle-Tacoma International Airport
96-4-02325

Ladies and Gentlemen:

Thank you for holding a hearing to receive public comments on the proposal of the Port of Seattle to fill approximately 11 acres of wetlands on the west side of Sea-Tac Airport to construct the third runway.

We support issuance of an U.S. Army Corps of Engineers Section 404 permit and the related Washington State Water Quality Certification for the proposed construction.

We are aware of several wetland construction and improvement projects involving Corps permits, and we recognize that the Corps of Engineers is very thorough in its approach to issuing Section 404 and other permits concerning wetlands. We have every confidence that the authorization to fill wetlands and the related requirements to perform mitigation will be carefully reviewed and that environmental impacts will be given proper consideration.

We understand in this situation that mitigation and replacement of wetland acreage which would be lost if the project goes forward, will not occur in the same watershed. We believe wetlands should be replaced in the affected drainage basin, but in this case, the safety of aircraft and

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18000 Andover Park W • Suite 200 • Tukwila. WA 98188-4798
Telephone 206 575-2000 • Fax 206 575-1837

passengers must also be considered. The Sea-Tac International Airport is where it is and as a community we must focus on meeting the needs of our growing region while at the same time preserving our environmental amenities. We believe the proposal strikes this delicate balance.

While the proposed mitigation may not be "ideal", we understand it has been the subject of careful and coordinated planning among the Port of Seattle and regulators. We support the completion of proposed mitigation measures within the Miller and Des Moines Creek Basins to the extent they are practicable (such as buffers along both sides of Miller Creek, and relocation of a portion of Miller Creek). We also support the plan to replace the 11 acres of low value wetlands to be lost as a result of construction with higher value wetlands and forested buffers on the Green River. The combination of work within the affected watershed and outside it will undoubtedly benefit the environment. Preserving small, isolated and heavily disturbed wetlands with lower functions and values does not seem to us a preferable alternative to allowing the appropriate permits to be issued for the project with their related wetland mitigation and other regulatory requirements which will provide environmental protection and benefits.

With respect to the necessary Water Quality Certification, we support its issuance with the understanding that the Department of Ecology will impose conditions it deems appropriate to accomplish the goals of the process.

In conclusion, we believe the Port of Seattle's proposal is both reasoned and reasonable under these circumstances and if the permits are issued, the proposal will serve the public interest. Therefore we urge the Corps of Engineers and the Department of Ecology to issue the necessary permits so the proposed work can proceed.

Thank you for considering our comments.

Very truly yours,

SEGALE BUSINESS PARK

M. A. Segale

DOE-P-1

JAN 2, 98

DEPT OF ECOLOGY

THANK YOU FOR THE COPY OF THE PERMIT APPLICATION SUBMITTED BY THE ARMY CORPS OF ENGINEERS.

I HAVE BEEN A RESIDENT OF THIS AREA FOR CLOSE TO 60 YEAR I HAVE ALSO WITNESSED THE DISTRUCTION OF MILLER CREEK.

THEY CANNOT STOP WHERE THEY ARE STOPPING. THERE HAVE BEEN SO MANY CONTRIBUTERS TO THE DEATH OF MILLER CREEK.

THE FIRST WAS "NOVAK BARREL WORKS" WHICH DUMPED CHEMICALS OF ALL KINDS.

NEXT WAS "BURREA AUTO WRECKING" BAR THAT USED THE SAME STORM SEWER TO DUMP AUTO SALVAGE FLUIDS INTO LORA LAKE.

NEXT WAS NICK REAFO GARBAGE CO THAT FLUSHED THE GARBAGE TRUCKS INTO MILLER CREEK

IN BETWEEN ALL THIS GOING ON WERE PROPERTY OWNERS THAT SCREENED AT THE PROPERTY LINES TO DEVELOP THEIR OWN FISH FARMS. END OF ALL FISH, CUTTHROAT, STEELHEAD, COHO SALMON, EVEN CRAW FISH.

I THINK LORA LAKE, MILLER CREEK AND SURROUNDING AREAS SHOULD BE MADE FREE OF CHEMICALS AND SCREENS AND KEPT LIKE GOD INTENDED

Harold E. Hardwick

1998 Harold Hardwick
1013 S 160th St
Seattle, WA 98148-1333

AR 036924

Diane S. Olson
16408 8th So.
Sea-Tac, Wash. 98148

DOE-P-2

January 5, 1998

State of Washington
Department of Ecology
Public Notice # 96-4-02325

To whom it may concern,

The proposed drainage channel between 160th St. and 168th St. on plan sheet 18. In that area there are adult salmon as well as trout. The erosion, sedimentation and contaminants from construction, construction machinery and glycols, have to have a effect on fish. Those fish will be eaten by: Bald Eagles, Great Blue Herron, possibly Goshawks, Red tail Hawks, peregrine Falcons, Great Horned Owls, Racoons and People. I have noticed in the winter when the Airport is using glycols, for deicing, the Great Blue Herron will not come to my area of Miller Creek. The Herons are like the guardians of the ecosystem. As soon as the

ecosystem starts to deteriorate, the Herons are the first to leave. They return when the glycols are not being used. How much of the glycols can the wildlife ingest before it kills them?

It doesn't take a Rocket Scientist to see that destruction of homes, trees, filling for the 3rd runway, construction of Airport facilities, noise dust and pollutants will effect wildlife, including threatened and endangered species. 2

For 26 years I have left aprox 1/4 of my property in its natural state, to help preserve and protect the wildlife. I am outraged with the plans the Port of Seattle has for this area.

Wetlands that are to be constructed in Auburn, will not help the wildlife in this area. It would be better to annex the Sea-Tac Airport to the Auburn wetland mitigation site and leave the wildlife an wetlands here alone. 3

4 Will there be environmental impact statements for the areas in the 5 countys that the fill material is comming from? My husband, the sole support of my family, works for a major road construction company, in the area. He has been told, construction of the 3rd runway will put the compan out of business. The reason being, it would not be economically feasible to haul materials from such a great distance, the extra man hours involved and increased cost. Since the 3rd runway will take so much fill materials and deplete the sources. The constructi of the 3rd runway will very likely effect othen companies and thein employees, reducing jobs in the area. Probably including increased cost of road and freeway construction, for Washington State, the 5 countys the 3rd runway fill material is comming from and cities in the 5 countys. We

5

should assume the thind runway will effect the economy, in all 5 countys (that the fill material would be comming from,) in some way maybe not for the betten but for the worse.

List of wildlife in the proposed 3rd runway buyout area.

Bald Eagles
Great Blue Herons
Peregrine Falcons
Great Horned Owls
Red Tail Hawks
Goshawks
Ducks (mostly mallard)
Salmon (adult, upstream from me.)
Trout
Crawfish
Eel (I don't know what type.)
Frogs (tree & water types.
Periwinkle
Opposom (some albino)
Skunk
Coyote
Red Fox
Racoon
Rabbit
Gray Squirrel
Ring neck dove
Crow
Blue Jay

Ring - Necked Pheasant
California Quail
Barn Swallow
Chickadee
Oregon junco
House Sparrows
Hummingbirds (some varities)
Woodpeckers ; (occasionally pileated woodpeckers)
Red-Shafted Flickers
Downy Woodpeckers
Robins (Have seen albino here)
Varied thrushs
Starlings
Black-headed Grosbeaks
Evening Grosbeaks
Gold finches
Rufous-sided Towhees
And of course; rats, mice, shrews, moles and other less desirable animals.

DOE-P-3

8 January 1998

To: US Army Corps of Engineers
PO Box 3755
Seattle WA 98124-2255
Attn.: Regulatory Branch
Project manager for File Number 96-4-02325
Mr. Jonathan Freedman

To: Permit Coordination Unit
Dept. of Ecology
P. O. Box 47703
Olympia, WA 98504-7703

Subject : Request for Public Hearing and Comments on "Port of Seattle File Number 96-4-02325", Notice of Application for Water Quality Certification and For Certification of Consistency with the Coastal Zone Management Program

This is a formal request for a public hearing regarding the subject application regarding the Sea-Tac Airport Master Plan Update. Justification for a public hearing includes, but is not limited, to those items indicated in the enclosures.

If this request has not provided adequate justification for a public hearing you are requested to provide examples of the type of information required within a couple of working days of receipt of this request. Many individuals have collected an enormous amount of relevant data that the permit does not appear to have considered. The hearing would provide an opportunity to collect relevant data from various environmental groups and individuals for an extremely controversial project.

In addition, you are requested to extend the comment period by 45 days after the public hearing date because

- Christmas mail backlog delayed delivery of the permit by at least a week
- Extra time is needed to obtain the referenced document. Distributing copies to local libraries would enable people to view them without taking a vacation day from work. Please consider mailing them to at least the Burien library.
- Extra time is needed to incorporate the public hearing comments into a written response.

Also, this shall be considered my comments to the 404 permit and the DOE Notice of Appplication for Water Quality Certification and for Certification of Consistancy with the Coastal Zone Mangement Program dated 19 December 1997. If an extension is granted, I may add to these comments.

Thank you,

A Brown

A. Brown
239 SW 189 Pl
Seattle, WA 98166
Pager (206)654-1533, Home/Messages (206)431-8693

cc: Commander Robert H. Griffin, US Army Corps of Engineers PO BOX 2870, Portland, Oregon 97208-2870

File number 96-4-02325 permit198

404 Permit Key Points Summary

- Extent of wetlands impacted unknown.
- No provisions for enforcement of regulations or mitigation despite the Port of Seattle's dismal environmental and mitigation compliance record.
- EIS validity is being challenged in court. The number of operations, costs and impact on the environment, including the endangered/threatened species and the aquifer, were GROSSLY underestimated. This project violates environmental regulations. Realistic alternatives were NOT considered.
- The "insignificant" construction to date appears to have already changed the water levels and flooding patterns making prior hydrological analysis obsolete.
- The construction schedule has slid so much from the original plan, the Third Runway will already be beyond "practical capacity", as defined by the aerospace industry, even if it were to open in 2005. The SEIS in part recognizes this and recommends a new EIS in the year 2000 !

- The permit admits to not knowing if additional wetlands are impacted. A site survey is MANDATORY. Also, impacts from ALL planned construction or temporary construction such as road bypasses, need to be considered.
- Permit contains no provisions for special monitoring of the project to ensure compliance with regulations and "best practices'. Historically, the Port violates regulations for decades until a group of citizens get a lawyer. Usually the threat of a lawsuit inspires departments such as the DOE to issue violations. However, those fines are just tokens and still are not on a daily basis.
- The Permit references documents on page 16A that are part of the NPDES discharge permit but it expired last June. This 404 Permit should not be issued until after a NPDES is renewed.
- The permit on page 16A refers to pollution prevention, sedimentation and spill prevention plans, etc., which are inadequate for this non-standard record-breaking project. Best commercial practices are inadequate for a project of this magnitude. Civil engineering books say to avoid building on aquifers, yet this project not only builds on our drinking water supply, it dumps over 80 billion pounds of fill on it and then uses a non-standard retaining wall (angle too steep) to hold it in place.
- References to EIS data are misleading by omitting other relevant data that was also in EIS such as other endangered/threatened species such as frogs that can not fly to Auburn
- Referenced EIS data is obsolete such as
  (a) the Port of Seattle has now admitted in writing to the release of UNTREATED glycols
  (b) additional data on the hazards of glycols, particularly propylene glycol are now available (rot stomach of fish at 65 ppm)
  (d) tests indicated the high, unsafe fecal coliform count in creeks by the Sea-Tac Airport is human, not aviary. Its relationship to aircraft toilets must be identified and the problem resolved prior to any additional significant construction at the airport
- Permit erroneously attributes deicing to just winter months
- Lawsuit underway due to incredible number of technical discrepancies in EIS and significant opposition to the project
- Ramifications of Kludt Miller creek judgment from 2nd runway mitigation lawsuit not addressed

- Provides NO PROVISIONS to enforce mitigation such as covered double haul trucks addressed in the FEIS. This year's hauling created *severe respiratory problems* in citizens by the airport who would choke as they drove by the airport. According to pharmacists "an incredible number" of respiratory medicines were prescribed during the major hauling that occurred during the fall of 1997. The 1996 petition by citizens requesting mitigation was ignored by Sea-Tac Public Works.
- Provides no mitigation for the pollution from the massive amount of road kill that will occur. Just the current construction level has increased the amount of "road kill" (small animals such as field mice, skunks, moles, etc.) by at least 300 percent (based on the number of dead animals on the streets by the airport during the morning commute). The Dept of Public Health is investigating a deadly virus transmitted by field mice trying to determine its source !
- Provides no mitigation for displacement of larger animals such as foxes now seen in the Normandy Park QFC parking lot or the raccoons seen crossing the street in higher numbers than past years.
- Does not provide mandatory mitigation for vibration damage to structures within a mile or two of construction. Due to the interaction of the soils and aquifer even a "small" Sea-Tac warehouse project at 8th and 200th caused vibration and noise problems in the heart of Normandy Park.
- Does not appear to address the removal of soft soils form the two seismic anomaly locations or removal of contaminated soil.
- Does not appear to address the current and planned stockpiling of fill or the particulate control necessary to provide breathable air.
- Does not provide for mitigation such as air cleaners for all homes within two miles of the construction. The two miles is based on current haul levels and may need to be increased if the haul rate is increased without adequate particulate control.
- Does not account for the added pollution from the extra cleaning of homes and vehicles due to the incredibly high particulate level from construction. At the current hauling levels, just driving by the airport a few times makes your car windows filthy with a distinctive dirt easily measured by using your windshield wiper end point as the collector.
- An accurate assessment of the scope of the project is not available. In their comments on the EIS, the University of Florida indicated that the fill calculations for the 26.4 million cubic yards were in error and are too low.

The real number is over 28 million plus whatever is needed to resolve soft soil and contaminated soil issues.

- Provides no provisions for quality of fill testing even though at least three people have witnessed, and then reported to the DOE, that debris from the torn down First Ave Bridge was hauled to the site of the new parking lot under construction by the federally protected well head.
- Implies that wetlands by Borrow source 5 are not impacted. However, the recent UNPERMITED construction of the north airport parking lot appears to impact this area. Damage from construction violations, particularly those that resulted in fines, must be factored into the environmental analysis.
- Jet fuel spills at the airport make the drinking water in nearby cities so polluted some residents are unable to drink suggesting a connection of airport pollution to either the aquifer or water mains - either way additional MANDATORY mitigation is required for the CURRENT airport and must be resolved prior to even considering a Third Runway
- Tests have shown numerous abandoned, buried home heating oil tanks were not emptied and are creating a safety hazard for the aquifer and salmon bearing creeks
- Does not address the essential nature of the aquifer that provides water to a large area and the associated hazards. Ironically, Seattle Water launched a major publicity campaign to get people to reduce their fertilizer use by the airport to reduce contamination. Yet the EIS isn't concerned about the oils, greases or deicers, etc. Considering the water rates were recently raised to go find other water sources, does it make sense to further pollute the existing source of water used by Highline and Seattle Water Departments?
- At least one outfall was recently renumbered, just months after the DOE was given pictures of it oozing or gushing oil, grease and glycols, so it is not possible for citizens to make use of EPA pollution data to assess the situation (Which data goes with which outfall?). They still have not answered citizens' inquiries regarding the change in numbers or any other comments made regarding the December 1997 NPDES permit or last June's proposed Groundwater study. It is reported that the only NPDES permit that has ever received more comments than the Sea-Tac Airport 1996 NPDES permit was Hanford Nuclear Plant.
- It is premature to release a draft of this permit until the DOE has issued a response to comments and allowed a rebuttal time to both the Groundwater Study and the NPDES permit due to the close tie between them.

- Contamination of the uppermost aquifer ("Qva Aquifer") is already documented in Dept. of Ecology Agreed Order 97TC-N122 which identifies the Port of Seattle as the "potentially liable person".
- The permit erroneously reports that these wetlands have a "low functional value" (page 5). On the contrary they are the pollution buffer between Puget Sound and the airport. Both Walker Creek and Miller Creek have had numerous coho salmon sitings this year. The destruction of the wetlands and disruption to the creeks guarantees increased Puget Sound pollution and eventual loss of beach habitat. Considering the findings of the Washington/British Columbia Marine Science Panel that we can sustain no more beach habitat loss, to say that they have low functional value is ludicrous!!!!!!!!!!!
- Mitigation outside the watershed is not justified when very viable new airport sites such as Tenino exist. A statewide search for alternatives, as was required for the Emerald Downs race track, is REQUIRED.
- Misleading Permit maps that do not indicate the existence of Burien, Normandy Park, Des Moines, Sea-Tac or Kent.
- The "100 year flood" plain has been so radically altered by construction near and at the airport it is probably a "two year" flood plain. A new flood plain study is needed before issuing a 404 permit. Water was still running over S154th by the airport on January 6, 1998 around 5:50 PM yet the rain had already stopped.
- What happens to an aquifer when you put over 80,000,000,000 pounds of fill on it (yes, that's over 80 BILLION pounds excluding the thick concrete)? The sinking of one lane of nearby First Ave and the bubbling up of new mini-creeks that have occurred since the first 370,000 cubic yards was dumped in summer of 1996 must be put into perspective. The 370,000 cubic yards represents less than 1% of the total future weight. The situation has worsened with the added complication of the North Employee Parking lot and the 1997 stockpiling of Third runway fill. The first North Parking Lot Construction mud slide that damaged Miller Creek has been attributed to a **"spring that came out-of nowhere"** according to Seattle Water Dept. personnel. They were called to the site to determine if a water main had broken! Subsequent to the first slide another slide occurred and on at least one other occasion the water began flooding highway 518. The water level is now so high in the lake beside 518 that some days it appears about to

- Neither the Port funded studies or the DOE to date have considered the long term health of the existing wells or aquifer. To assume it's acceptable to contaminate our drinking water supply in 10 years is UNACCEPTABLE.
- During the Miller Creek survey, they were able to push a 20 foot stick into the Miller Creek bed as if it were a straw in a milk shake and a peat farm was adjacent to the airport land in the proposed third runway area. This raises the question, how much soil must you excavate to hit "land" or will they build on unstable land?
- Geologists are considering upgrading the seismic rating to the highest rating to further complicate the civil engineering task of trying to stabilize fill. What MANDATORY monitoring is needed during construction so the entire project can be terminated if technology and finances can't beat mother nature? Actually, just the problems to date should have haulted the project already.

Hydrologic studies and flood plain maps are now obsolete. The "insignificant" construction has already significantly altered the water table !!

Upon completion of the North Sea-Tac Parking lot construction, a hydrological and environmental impact study is needed to determine if the aquifer can support a Third Runway. The stockpiling of the Third Runway fill on airport property should be **halted immediately** until it can be determined if we have an aquifer crisis already.

- The proposed runway significantly increases the probability of air-to- air and on-the- ground accidents. The FEIS indicated a 21% increase in incursion rate for those operations but the number was not recalulated when the number of operations was increased in the SEIS, nor was it ever calculated for the theoretical maximum. Imagine how high the accident rate must be with the higher number of operations !

THE THIRD RUNWAY IS DEADLY

wash out SR 518. Before the North parking lot construction, the lake was so small most people didn't even realize they were driving by it.

- The AGI[1] groundwater report refers to material as "till" whose conductivity is over two orders of magnitude different than the definition by Freeze and Cherry (1979 page 151). Using the industry standard definition for "till", the aquifer does NOT have the level of till protection claimed in that report. Do the same problems exist with the Third runway analyses as the North Sea-Tac Employee Parking Lot report?
- The AGI[1] groundwater report, which is limited in scope to the North Parking lot and adjacent Riverton wells, also has unexplained differences in some of the key data. The risk to the aquifer from the parking lot may not be limited to just the area near SR 518 and the duration of the construction may be longer than assumed in the report. Contamination risks are time dependent.
- Neither the Master Plan Update nor the Permit consider the source of fill and its impact on wetlands. According to a government official , it will use up this areas supply of fill for at least the next ten years so new mining sites are needed. The EIS also indicates the need for new permits. The maps and tables in the EIS show some sites that NO LONGER have permits.
- Currently a company is trying to get a permit to mine arsenic laden fill to the depth of the Maury Island's aquifer. The arsenic levels are almost as high as ASARCOs. The company's only credible potential customer for quantity they want to excavate is the Third Runway. Think of it, just one mining event will ultimately contaminate not only the Maury Island aquifer and the Highline Aquifer but possibly the Vashon Island aquifer too. Considering the company is now foreign owned, our environment may not be their uppermost consideration. If the barge has an accident, what will the arsenic and fill do to Puget Sound? A barging EIS is needed !!!!!
- The impact of the vehicular traffic, mostly at a dead stop or 10 miles per hour for the years of massive hauling also needs to be considered in the water pollution calculations.
- The Port of Seattle has started condemnation procedures on a farm in the buy-out area. The Pumpkin Patch Farm was already bought out. The EIS does not accurately portray the farmlands, wetlands or tributaries to the creeks.
- The SASA EIS mitigation conflicts with the Master Plan Update SEIS plans.

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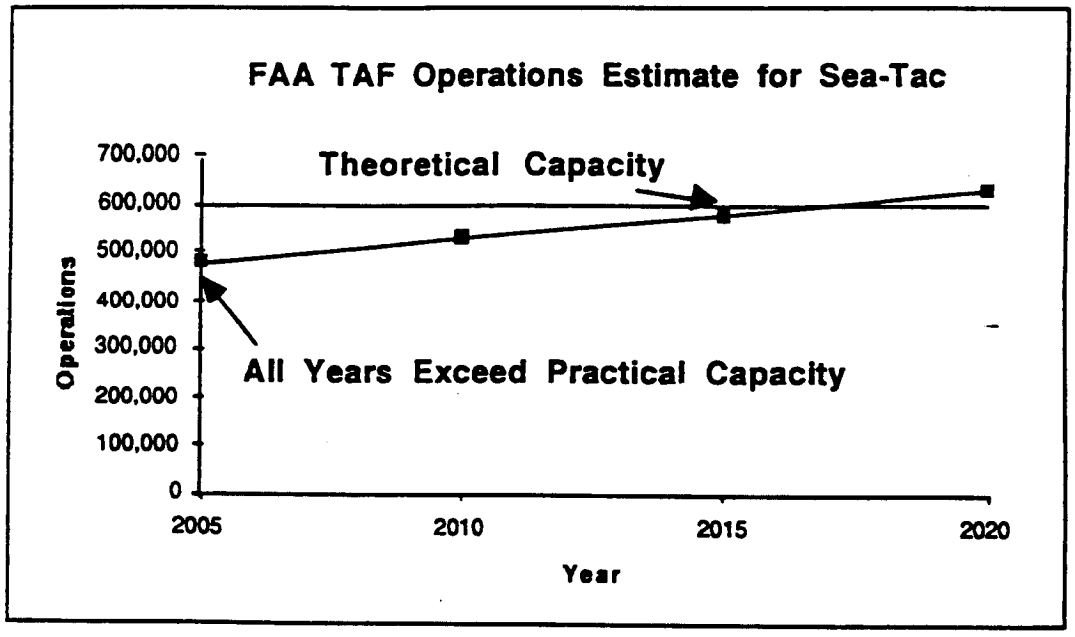
[1] AGI Project 16,116.001, Draft Groundwater Quality Impact Evaluation Proposed North Employee Parking Lot Seattle Tacoma International Airport, SeaTac Washington, AGI Technologies, 11 April 1997

- The usefulness of the "Third" runway was overstated in the EIS and Permit. The EIS did not differentiate advantages from the extension of the existing runway which can handle heavy jets from the dependent Third runway that is too short for big jets. The Third Runway reduces capacity of the existing Sea-Tac runways and Boeing Field (FAA report referenced in FEIS).
- The FEIS overstates the capacity advantages. The Sea-Tac Airport WITH the "Third" runway will already EXCEED practical capacity as defined by the airport industry (NPIAS) when it opens even if the construction schedule and lawsuits do not cause any schedule slides. See Figure 1 which is based on SEIS and FEIS data.

Figure 1 : Part Time "Third" Runway Exceeds Practical Capacity Before it Opens



This situation is much like trying to fit a baby bootie on a man's size 13 foot and paying 100 times the standard price.

We desperately need to expand outside of King County !

- The "full range of alternatives' statement on page 2 of the permit is a joke. Tenino, Washington has been lobbying for years for an airport that would impact the environment less and be more cost-effective. There is even enough room to build one like the model airport that was in the possession of State Secretary of Transportation Morrison ! However, the Port of Seattle

would not have jurisdiction over Tenino because it is outside King County. Also the FEIS stated that "no technology currently exists" yet Global Positioning Satellite technology is scheduled to be on most commercial jets BEFORE the Third runway opens. Had the Third Runway actually opened in 1997 as planned rather than sometime after 2004, the technology argument would have been valid. This is in example of the problem with out-of-date EIS's.

- The economic advantages were also overstated by the EIS and permit. The Third runway, including mitigation, will ultimately cost MORE than the entire new FIVE runway Denver airport but provide only ONE PART TIME runway. The funding available from the FAA will likely be less than what was available to Denver who raised airline user fees to about $19 to cover costs. That means either airline user fees per ticket must go up to about $60 or King County taxpayers get to pay the difference. No wonder the airlines have been quietly pursuing moving operations to more economical airports like Vancouver, British Colombia and Paine Field. WA. The world's most expensive runway is not very attractive to airlines unless someone else is footing the bill. The Port's bond rating went down in recent years, how low will it go?
- The SEIS also overstates the traffic pollution for the "Do Nothing" alternative by assuming no road or parking improvements. This unfair assumption was used even if the construction had already begun and would occur with or without the Third runway. This resulted in higher ground traffic pollution for the "Do Nothing" alternative than with the "Third" runway, even though the "Do Nothing" has less traffic.

- The EIS **understates all pollution for the Master Plan update by HUNDREDS OF THOUSANDS OF OPERATIONS.** It used a total number of operations for the existing airport that EXCEEDED the theoretical capacity while using a number for the Update that was lower than both the theoretical capacity and the FAA Terminal Air Forecast (TAF) projections. Considering Sea-Tac generally exceeds the TAF estimates this is a very unconservative approach.

  The SEIS operations data compares "apples and oranges", a common expression within engineering to indicate the wrong data was compared resulting in a wrong answer that has NO technical basis. There are a variety of parameters that could have been used to compare operations such as on the basis of severely congested, the Do Nothing alternative constrained to its theoretical maximum, or both at their theoretical maximums. Table 1 provides examples of some more appropriate comparisons. Table 2 provides additional data and the source of the Table 1 data.

Table 1 Pollution Calculations Ignored Hundreds of Thousands of Operations

Basis of Pollution Calculations /1/	Additional Annual Operations with Third Runway compared to "Do Nothing"
SEIS for Year 2005 -	0
SEIS for Year 2010	14,000
Do Nothing at Theoretical Maximum, Third Runway at Yr 2010 FAA TAF amount	128,200 /2/
Comparing both at Theoretical Maximums	230,000 /2/
Comparing the 2nd Runway mitigation quantity to theoretical maximum for Third Runway	369,000 /2/

/1/ See Table 2 for references

/2/ Note, this number is much greater than the Zero used for 2005 and 14,000 used for 2010 in the SEIS pollution calculations

Table 2 : SEIS Pollution Calculations Grossly Underestimated

	"Do Nothing" Alternative: Existing two runways	Master Plan Update : Third Runway & Extend another	Comments /4/
Used for 2nd Runway noise boundary mitigation /1/	**260,810**	Not Applicable /3/	Update is over **339,000** more operations but no proposed change to noise boundary!
Practical Capacity /2/	350,000	460,000	Update is **110,000** more operations
Severely Congested /2/	390,000	540,000	Update is **150,000** more operations
Theoretical Capacity /2/	400,000	600,000 - 630,000	Update is **200,000 plus** more operations
FEIS and SEIS used "New Port" calculations in 2005 for pollution impacts	445,000 (exceeds theoretical capacity)	445,000 (less than TAF estimate)	2005 Pollution calculations used **IDENTICAL NUMBER of** operations **i.e. ZERO INCREASE**
FEIS and SEIS used "New Port" calculations in 2010 for pollution impacts	460,000	474,000	2010 Pollution calculations used **only 14,000** more operations
Terminal Air Forecast (TAF) in 2005		478,050 (exceeds practical capacity)	TAF Yr 2005 **higher** than the New Port Yr 201 0 used in SEIS
Terminal Air Forecast (TAF) in 2010		528,200	**Exceeds severely congested**

/1/ Phase I, Part 150, Port of Seattle, Oct. 1985
/2/ See SEIS and FEIS Table 1-1 and FEIS Exhibit 2-2 for operation numbers
/3/ The location proposed for Third Runway was rejected during 2nd runway EIS process. Same issues still exist !
/4/ SEIS SHOULD have used TECHNICALLY FEASIBLE number of operations instead of exceeding theoretical capacity for the "Do Nothing" and underestimating the number of Third runway operations. For example it could either (1) compared theoretical maximums resulting in 200,00 to 230,000 operations more operations for the Update than the "Do Nothing" Alternative OR (2) compared to the limit set for the second runway originally for an additional 339,000 to 369,000 operations with the Update. Instead for the year 2010 a mere 14,000 additional operation were used.

AR 036942

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Enclosure B ~ Annotated for File Number 96-4-02325

8 JAN 1998

A. M. Brown
239 SW 189 Place
Seattle, WA 98166
28 March 1997

To : Federal Aviation Administration (FAA)
NW Mountain Region
1601 Lind Ave SW
Renton WA 98055-4056
Environmental Protection Specialist Dennis Ossenkop, ANM-611

Subject : Comments on Sea-Tac Airport SEIS due 31 March 1997

Enclosed are comments on the subject SEIS. They should be considered as a supplement to all my comments previously submitted. Please note, I do not consider many of my prior comments adequately addressed in the FEIS or SEIS. In my comments on the DEIS, I provided data suggesting that the estimates were too low. The "New Port" estimate is still too low.

Please include the questions or revision requests, their number (AB x), and the enclosed rationale in the Record of Decision. This will make it more obvious to the reader when the questions are taken out of context, ignored or only partially answered. The SEIS response should reference the question number.

Also, in accordance information in accordance with the following chapter in NEPA:

> 1503.4 (5) "Explain why the comments do not warrant further agency response, citing the sources, authorities, or reasons which support the agency's position and, if appropriate, indicates those circumstances which would trigger agency reappraisal or further response".

Due to the short comment period, despite the major revisions, I was unable to organize my comments into an easy to follow document as I did for the DEIS.

Sincerely,

A Brown

A. Brown

Pager (206)654-1533 (Also can be contacted through CASE or RCAA office)

Enclosure : Note - References for SEIS comments are listed in Appendix A

A. Brown SEIS Comments -Questions dispersed throughout this enclosure

Global Comments

Question AB 1 : Why aren't alternatives outside of Sea-Tac being considered now that FAA TAF forecasts indicate the Third runway does not provide adequate capacity but will cost more than building an average US airport (construction, infrastucture, mitigation and funding costs)?

Question AB 2 : Why were the impacts for alternative 1 based on operations above the theoretical maximum?

Question AB 3 : Why weren't the impacts for alternative 3 calculated using the theoretical maximum of operations and enplanements?

2. *Question* AB 4 : Why weren't the impacts for alternative 3 calculated using the FAA TAF estimates ?

Question AB 5 : Considering the uncertainties around the estimates, why wasn't a sensitivity analysis done comparing New Port estimates, FAA TAF estimates, and theoretical maximums?

Question AB 6: What are the impacts using FAA TAF estimates, 10 % over FAA TAF estimates, and theoretical maximums?

Question AB 7 : How do fleet mix assumptions change impacts to assessments based on New Port estimates, FAA TAF estimates, and theoretical maximums?

Question AB 8 : Realizing the SEIS was required by the Washington DC FAA office because they felt the FEIS estimates were too low, isn't issuing a SEIS that only adds 68,200 operations and ignores the FAA TAF estimates inconsistent with Washington DC FAA's intent?

Question AB 9 : Isn't assuming only a 2.5 % growth for Sea-Tac airport too conservative considering (1) Sea-Tac's large growth to date, (2) continuing growth of industry and population in the area and (3) its proximity to popular foreign travel routes?

Question AB 10 : Isn't excluding Boeing Field impacts inconsistent with the cumulative impacts approach required by environmental regulations?

Question AB 11: What are impacts if Boeing Field current and projected growth are included?

Question AB 12 : Aren't their exceedences or larger exceedences in pollutants such as nitrogen oxides if Boeing Field is considered?

POLLUTION IMPACTS

Question AB 13 : Considering the mix zone for Boeing Field and Sea-Tac overlap and the nitrogen oxides from the newer aircraft are worse than the old ones, what are the real expected pollution levels?

Question AB 14: How much larger would the noise mitigation boundaries be if Boeing Field noise and Sea-Tac noise for ALL aircraft operations including foreign carriers were considered?

Question AB 15: What are the approximate additional mitigation costs if all reasonably probable cumulative impacts are considered along with all the supporting infrastructure needed to make a Third runway practical ? This includes pollution from Boeing Field operations, SASA, tower, parking lots, road repairs, road construction etc.

Question AB 16: Are their any precedents for ignoring the higher TAF estimates but then later in the same SEIS stating that ANOTHER Master Plan update will be need around the year 2000 because of the fast growth?

Question AB 17 : What is the rationale for ignoring the higher TAF estimates but then later in the same SEIS stating that ANOTHER Master Plan update will be needed around the year 2000 because of the fast growth?

Question AB 18 ; What is the rationale for assuming Sea-Tac will grow slower than the US average?

Question AB 19 : Have you assumed slower growth for Sea-Tac because the Third runway is inadequate from a capacity standpoint?

Question AB 20: Have you assumed slower growth for Sea-Tac because of the Third runway's unprecedented high TOTAL cost, particularly if supporting infrastructure costs are considered?

Question AB 21: Why do the traffic models predict no impact from double haul trucks on roads and highways that people dread going on NOW because they are so congested?

Question AB 22: Would the modeling results be different if only one edition of the Highway manuals had been used instead of mixing different versions?

Question AB 23: Isn't Sea-Tac's location and geographical constraints incompatible with significant growth?

Question AB 24: page 2-2 Why was year 2010 Alternative 1 estimated to be 474,000 operations (New Port estimate) rather than the 460,000 theoretical maximum operations listed on page 2-7?

Revision AB 25 : All Alternative 1 year 2010 impacts including but not limited to noise, pollution, and surface transportation should be recalculated using the NPIAS 460,000 in the SEIS.

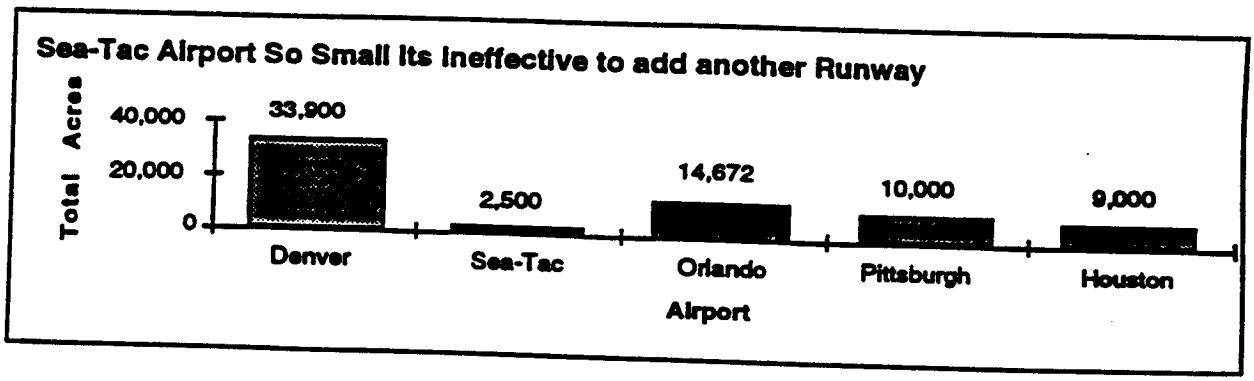
Comments and Rationale Primarily related to pervious Questions

Airport Location and Size Incompatible with Significant Growth

Port Columbus is obtaining 240 acres to build a new 10,250-foot third runway (ref. (p)). Compare that to Sea-Tac basically taking several blocks of a residential street with houses lining one side of it.

When other small U.S. airports don't have room to expand because of heavily populated areas, they use another airport or technology to increase their capacity. For example, Charlotte with 5,000 acres and San Francisco with 5,400 acres opted for Localizer Directional Aid technology instead of additional runways. It is the airports with large acreage that can afford to add runways or those with large buffer zones. Comparing airport sizes, runway lengths and capacities, using data in the FEIS (ref. (d), page R-201), it becomes obvious that even with the proposed land acquisition, Sea-Tac's proposed expansion is too small to be cost-effective and safe. See figure below.

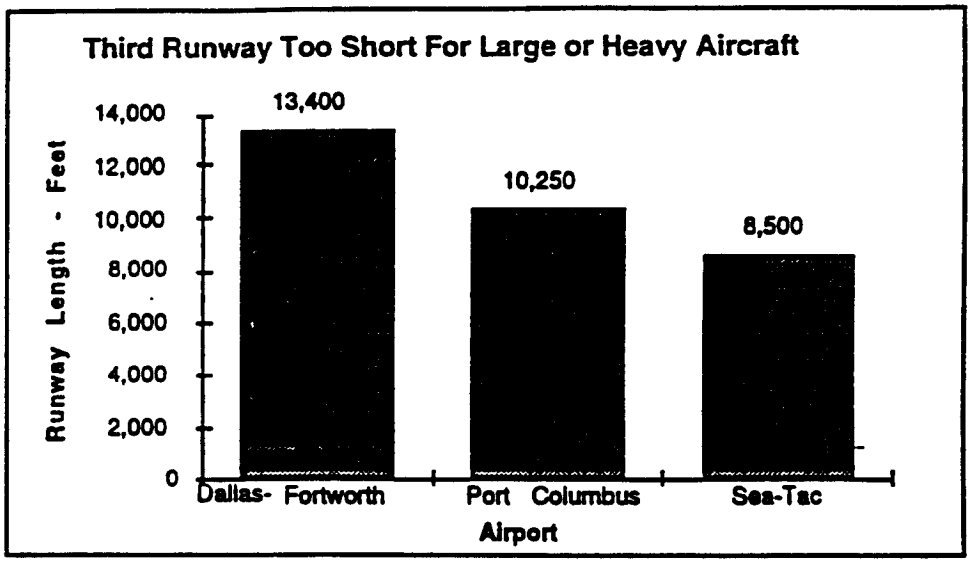
Figure 1 Airport Size Comparison



Runway Length Incompatible with Significant

The proposed runway is too short to handle fully loaded cargo planes. The FEIS states the 8,500 foot runway is too short for B-747, DC-10, MD-11, L-1011 or B-767 (Ref. (d), page R-126). Compare the proposed Third Runway short length to other new U.S. runways. The other airports have considered the new, larger airplanes that will be in use by the time the Third runway is built as well as the existing large passenger and cargo jets. *The industry preferred runway length is about 40 % longer than Sea-Tac's proposed part time arrival runway length of 8,500 feet !!*

Table 2 Proposed Runway Too Short for Large Jets



Using the 1997 FAA TAF (Terminal Air Forecast) estimate and NPIAS standards in SEIS Exhibit 2-7, the Sea-Tac airport with the Third runway will

1) Exceed practical capacity before it opens
2) Be severely congested by 2010
3) Be able to support only an additional 68,200 operations after 2010 before it reaches its theoretical maximum capacity of a mere 600,000 operations.

SEIS Exhibit 2-2 clearly shows that Sea-Tac operations per year have been consistently UNDERESTIMATED for over a decade using the FAA estimates.

Yet the SEIS chooses to ignore the 1997 FAA TAF estimate and use even lower numbers (474,000 for 2005). Even SEIS Appendix D that evaluated Case 3, a 10 % increase over the SEIS estimates, is BELOW the 1997 TAF estimate for 2010.

Using the SEIS (Port of Seattle) estimates Sea-Tac won't reach the TAF 2010 levels until approximately 2020! Considering the Washington FAA office required the SEIS be prepared because of the low Port estimates in the FEIS, does it really make sense to ignore the TAF levels? The 1994 FEIS estimates for year 2000 were surpassed in 1995. The 1982 projections for year 2000 were surpassed in 1986 so extremely low estimates have plagued this airport for decades (Ref. Sea-Tac Noise Exposure Update June 1982, Table G-1).

Question AB 26: Considering elsewhere in the SEIS it indicates that Sea-Tac airport is growing so fast it will need another Master Plan Update around year 2000 (SEIS pg. 2-14), how can the SEIS agencies justify not comparing the following for 2000 through at least 2020:

1) New Port's estimates (current SEIS)
2) 1997 TAF estimates
3) Upper bound of 600,000 operations for years 2010 and 2020
4) "Do-Nothing" alternative constrained to its theoretical maximum of 460,000 operations

The sensitivity analysis for the four scenarios listed above should include airport operations, pollution, surface transportation, and noise, etc. because
1) Using FAA TAF estimates capacity appears inadequate
2) Using FAA TAF estimates, Alternative 3 violates the Clean Air Act
3) SEIS indicates surface transportation could be a limiting factor
4) Appendix D identifies a much larger area of housing will be impacted by noise which then influences mitigation costs

The 1997 TAF projections are conservative. Historically, as SEIS Exhibit 2-1 shows, the TAF UNDERESTIMATES Sea-Tac growth. It is extremely misleading to use the New Port projections for noise, air or traffic estimates. The new Port estimates are still unrealistically low and point to the poor quality of the SEIS. See also data A. Brown DEIS comments and growth projections (ref. (c)).

Appendix D provides some comparison information for different levels of operation but appears to be seriously flawed. For example, SEIS Table D-2 predicts 7 less tons of nitrogen dioxides for Alternative 3/Case 1 even though it has 72,000 more operations than the "Do-Nothing" alternative for the same time period. If this is due to fleet mix considerations, a fleet mix sensitivity analysis of those is also needed. It is unlikely that Sea-Tac will be able to continue sending its jets like MD-80's to Boeing Field for the duration of the planning period.

Using the numbers in SEIS Table D-2 to calculate nitrogen oxides for TAF estimated operations in 2005, it appears the Clean Air Act "trigger" of 100 tons additional nitrogen dioxides may be reached by 2005 and that by 2010 over 200 tons of additional nitrogen oxides will occur annually with Alternative 3. These violations occur even if the connecting road, whose absence in Alternative 1 so significantly biased the SEIS surface traffic pollution calculations in favor of Alternative 3, is still absent. Note, this just addresses nitrogen dioxides, when other pollutants are added to the equation, the violations occur even sooner.

The air pollution assessment is illogical that " any of the "With Project" alternatives would result in pollutant concentrations equal to or less than would occur in the Do-nothing." (SEIS 1-9)

Using 1997 TAF FAA with the Third runway Sea-Tac airport will already be "Severely congested per NPIAS by 2010 and per Exhibit 2-7 be theoretically capable of LESS than 600,000 operations (SEIS Exhibit 2-7)

If the SEIS "New Port" estimates are as underestimated as the original FEIS estimates , Sea-Tac will reach theoretical maximum capacity of a mere 600,000 operations long before the SEIS predicts.

Why if the technology conference on September 25,1996 (SEIS pg. 1-5) concluded that there is 2500 foot spacing requirement between runways attributed to wake vortex conditions is a Third runway that is only 800 feet from one of the present runways being recommended? It reduces the capacity of

the existing runway as well as Boeing air field. (pg. 3.2 2500 west of 16L/34R)

Question AB 27: Haven't the benefits of the Third Runway been overestimated?

Dependent Air Space and Taxiing The transportation expert when testifying before a Congressional hearing indicated that the Third runway may actually increase schedule delays under certain circumstances (ref.(i)). Because it is dependent, it will decrease capacity of the existing Sea-Tac runways and reduces Boeing Field capacity (ref. (III)).

Peak Season Corresponds to Less than 3% Poor Weather The FEIS claims the benefit from the Third Runway is that it decreases arrival delays in poor weather. However, peak season coincides with less than 3 % poor weather (ref. (i)).

According to the FEIS R10-14, page R-124,
"..the possibility of a peak hour of airport activity and worse case meteorology occurring at the same time is rare if not highly improbable."

Question AB 28: Were the weather corrections made to the models so the number of summer's will now equal the number of winter's? If not, why weren't the corrections made?
Comment : See Congressional testimony

Another Runway Doesn't solve the ATC problem

Air capacity is a world wide problem. Europe has already faced up to the reality that infinite expansion of airports is not cost-effective and other alternatives are being implemented. The Port needs to consider the Air Transport Authority's March 20,1996 statement (ref. (rr)):

"The key lies with the air traffic control system, not our airports. System delays are overwhelmingly the result of inefficient ATC capacity"

Sea-Tac's load factor is less than 30 passengers per aircraft. The airport is recognized both nationally and internationally for its timeliness. Building a short runway that costs more than building a new airport is NOT a practical short term fix.

Question **AB 29: Isn't the Third Runway project and related infrastructure, on a per passenger or per pound of cargo basis, more expensive** than any other airport project in the world? Chek Lap Koc (Hong Kong) cost 21 billion but expects 35 million passengers. This total island/airport/bridge/town/railway cost amortizes to $ 600 per passenger over the first year.
Denver spent $ 3.2 billion to construct an airport with 5 runways that resulted in 530,839 operations (ref. (n) and FEIS Table R-12). If you amortized this over just one year then it's equivalent to $ 6028 per operation.

If you use the Denver's $ 4.9 Billion figure (ref. n) which includes all costs of money, rental car facilities, etc., then the equivalent Sea-Tac figure exceeds the partial cost of $ 3.3 billion in Tech Report 8. The $ 3.5 billion doesn't include toxic and hazardous clean ups, excavation or replacement of soft soil at Sea-Tac, loss of Federal HUD housing (or noise mitigation to avoid losing HUD funding, etc.). The $3.3 billion has since grown in the SEIS but it still leaves out many costs.
People are driving out of their way to use Colorado Springs airport because it's cheaper than the new Denver airport (ref. (l)). How much business will Sea-Tac lose if we help pay for the Third runway with enplanement fees? How much do our taxes go up if we don't pass the costs of the new part time runway onto the airlines? Even bonds cost money ultimately. Ask Denver about their junk bonds if you doubt this (ref. (o)). Or, ask United Airlines if they want us to spend as much on a part time arrival runway as was spent on the new Denver Airport. United pays $ 35 million to operate out of Stapleton. They pay "$ 195 million to operate at the new airport -- after realizing a $ 15 million savings from efficiencies. " (ref. (p))

Don't let Denver's high cost scare us away from a new airport. Denver spent $7.5 million in art and $ 232 million on their baggage handling system (ref. o). A well-planned airport can cost much less than Denver's new one **IF we set aside the land NOW.**

Question AB 30: Isn't Mirabel in Montreal a good deal compared to the proposed Sea-Tac expansion? They spent about a billion in Canadian dollars but at least they have cargo traffic even though the passenger traffic didn't materialize. Can you blame the passengers for not using it? There is no highway connecting Dorval to Mirabel and "the high speed rail from downtown never got on track" (ref. (q)). Mirabel airport also has over 35 times more acres than Sea-Tac so it has growth capacity.

The Third Runway is incredibly expensive compared to other projects no matter what cost number you use:

$ 500 million (some construction cost),

$ 1.5 billion (related construction),

$ 3.3 billion (includes some cost of money and operating expenses but still doesn't include all construction costs), or

a higher cost figure than $ 3.3 billion that includes the costs that government documentation says have not been computed yet such as soft soil excavation, toxic clean up, litigation costs, etc.

A state government funded Burien mitigation study (ref. (mmm)) with a very limited scope, has already identified at least another $ 3.3 billion in costs.

If all costs are considered, rather than just those the Port of Seattle and FAA acknowledge today, the real price tag probably exceeds $10 billion dollars for construction of the runway and associated infrastructure plus the cost of mitigation.

Question AB 31: Which runway is SEIS page 2-18 referring to?

pg. 2-18 item B "Provide sufficient runway length to accommodate warm weather operations without restricting passenger load factors or payloads for aircraft types operating to the Pacific Rim" ... Base on the projected demand, the runway extension would be needed after 2010. "

Which runway? Are there plans to extend the Third runway since its too short for most large jets? If so, that impact needs to be assessed now, not in another Master Plan Update around 2000.

Revision **AB 32: Aircraft pollution calculations are underestimated and need to be revised**

The calculations of the aircraft need to be redone using a realistic fleet mix, all aircraft engines being used in flight, and a REALISTIC landing/takeoff cycle time (L/T/O). To assume only 11 minutes for an entire L/T/O cycle as the FEIS does is unconservative (ref. (d) Table R-10). If this number was true there would be no discussion about building a part time runway that ultimately will cost more than the new five runway Denver airport. Considering it will have dependent flight paths with two airports and requires taxing in and out across two active runways, 11 minutes is a gross understatement. Eleven minutes is much shorter than prior Sea-Tac studies. At least 20 minutes should be used for the pollution calculations and the DC-10 calculations should assume two engines are used in flight.

No particulate is estimated in the EDMS 944 model. Particulates are significant and should be calculated.

The number and placement of receptors in the modeling is inadequate.

Since the release of the FEIS, a 14 foot slope for the Third runway has been proposed. Pollution calculations need to be redone to account for the different engine characteristics and the impact to taxiing also needs to be evaluated.

impact on flooding?

Groundwater and Flooding Inadequately Addressed

Revision AB 33: The SEIS needs to be revised to more accurately address the groundwater issues and risks that were understated in the FEIS (ref. (d))
The response to comments in FEIS (ref. (d)) indicated a significant risk to the Highline aquifer but did not offer any real mitigation. Isn't it a fact that Highline's aquifer which supplies 20% of Seattle's drinking water is already contaminated with jet fuel? Residents complain that even "contained" jet fuel leaks correlate with increased incidence in diarrhea. The construction of the Third runway and moving of creek beds virtually guarantees an even higher pollutant level. Isn't a permanent water source other than Highline's aquifer needed for the area or are we all to buy bottled water for the rest of our lives ?

See the Seattle Water Department letter reproduced in the Appendix E of the SEIS.

Revision AB 34: The amount of retention capability needs to be increased due to the high frequency of "100 year floods".

Question AB 35: Why have the DEIS, FEIS and SEIS consistently downplayed the critical water problems and risks?
The recent construction at the airport increased the area of impervious surface which caused 1996 flooding in areas that historically have not had not had flooding problems. Flood maps have been revised and mortgage holders notified that they now must carry flood insurance. The 1996 FEIS (ref. (d)) seriously underestimates flooding impacts. The area has had several "100 year" floods in recent years.
The SeaTac city appeal outlines the lack of 100 year flood capacity of the current Miller creek Reba detention facility despite King County and Port of Seattle agreements to comply.

Question AB 36: What are the increased impacts considering only 10% of the homes are cold climate (more insulation in cold climate homes)?
Question AB 37: Was the "cold climate" assumption used in setting noise mitigation boundaries or strategies?
Question AB 38: Was the "cold climate" assumption used in estimating loss in property values?
Question AB 39: What is the estimate in loss in property values considering we do not live in cold climate homes and property descriptions, even for property well outside the general study area, are now required to list "airport noise" on them?
Rationale for above questions
The DEIS and FEIS both assumed we live in cold climate homes when evaluating the socio-economic aspects. The FEIS response admits that only 10% of the homes fall in this category so there can be an additional 15 dB of noise exposure while inside.

Revision AB 40: SEIS pg. 1-12 neglects to list the Kindercare kindergarten as one of the schools impacted."

Revision AB 41: SEIS pg. 1-13 needs to be revise to indicate that the $50, 000 million is inadequate to provide adequate insulation

Revision AB 42: The noise model needs to be revised to correlate better with actual noise measurements
Rationale : Noise panel report cast grave doubts regarding the accuracy of the model. Boeing Field noise should be added into the noise model if it isn't already. This is particularly important since some noisy Sea-Tac flights were switched to Boeing Field. Also, Boeing Field is also undergoing a Master Plan Update to increase operations which will increase noise.
Each version of the noise model has reduced the contours yet the public is adamant the noise is getting louder and more frequent. Actual measurements support the public's claims that noise is increasing. Some noise issues include:

(1) Existing Noise Contours too Small
April 15, 1996, aviation easement contradicts the 1996 noise contour models (ref. (x)). It indicates that the noise contour model lines should be at least 5

DNL larger. There are whole neighborhoods even closer than that home to the airport. Therefore, there are still many people living in high DNL contours that the Expert Noise Panel was told had been removed (ref. (e)). This removal was sited by the panel as being why the noise mitigation was impressive, however, this removal hasn't actually happened.

(2) Predicted Noise Contours too Small

The current projections are even more unrealistic than the current noise contours. Actual noise measurement data shows that the existing contours are too small. See references (y), (aa) and Expert Panel report (ref. (e)) as well as the panel's supporting data. Noise contour maps need to consider All air traffic, including Boeing Field, when calculating noise exposure.

(3) Mitigation Boundaries Too Small

Noise boundary analysis appears to assume we live in cold climate homes but we don't according to the FEIS. Therefore, more homes should be eligible for noise insulation and/or buy-out (ref. (d) and (z)).

Actual noise monitoring, by the Port as well as RCAA, indicates that the noise contours are incorrect. See references (y), (z), (aa), and Expert Panel report (ref. (e)) as well as the panel's supporting data.

It appears that the noise model has not been updated to handle the different type of noise patterns caused by Stage 3 aircraft. Vibrations from Stage 3 have not been addressed. Also, according to the FEIS the noise model doesn't consider the increased noise from the reflections from the new buildings, walls and pavement around the airport.

(4) "Significant" Number of Homes Insulated Misleading

Area residents, deprived of their rights under the Federal Relocation Assistance Act when the second runway was added, have been forced by economic circumstances to live in areas that other airports would have paid to remove them from. Sea-Tac airport has more people living in areas that should have been condemned so we have more homes needing insulation. Also, the geographical location, i.e., close proximity to cities without the advantages of over the water flight paths, creates far more homes, daycares, hospitals, businesses, etc., in high noise and air pollution areas than most, if not all, other U.S. major cities. The FAA in other regions wanted a "residential

no-build zone" inside the 60 dB DNL boundary (ref. (ll)), compare that to Sea-Tac with homes and schools adjacent to the airport both before and after the Third Runway.

(5) Ramifications from Flight Path Changes and Noncompliance with Routes

The noise measurement data has been compromised by both unintentional and perhaps intentional flight path changes. Numerous flight path violations are a matter of record. In additional, changes to a Flight Manual suggest flight paths were also intentionally changed. A court may need to determine if the change in the Flight Manual should have required an Environmental Impact Statement in accordance with 1992 U.S. Court of Appeals, SCCF vs. FAA . See Mr. R. Akers correspondence including, but not limited to reference (bb), his court case. See also reference (y), and Reference (aa). These route changes have extremely serious ramifications with regard to availability of Federal funding for three low income housing developments which, based on actual noise measurements, appear to no longer be eligible for federal money (ref. (w)) and ref. (y)). The Hud housing impact is the subject of Aker's FEIS appeal (ref. (ooo)). See also the Mitre report (ref. (xxx))!

(6) Ramifications from Fleet Mix Changes Uncertain

Realistic current and future fleet mix is needed to predict noise contours. Changes in Alaska Airlines operations to Boeing Field impacted recent noise measurement data. Impact of the new larger airplanes, still on the drawing board, do not appear to be fully considered in the projected noise contour maps.

Revision AB 43: Does the noise model adequately take into account the side noise from hush kits on aircraft such as MD 80's
Comment: Noise from hush kitted planes is particularly loud in the Normandy Park area which is outside the current noise contours.

Question AB 44: Is their any data that suggests that aircraft are still not operating in accordance with the assumptions in the noise and pollution models.

Comment : Mitre report (reference (xxx)) indicates "... most airlines were using procedures which differed significantly from those assumed by then then-current Number 7 INM data base."

Revision AB 45: The impact of vibrations on landslide hazards is inadequately addressed.

During the recent flooding weren't the flight paths altered for some aircraft because they were contributing to landslide hazards. Considering the quality of the soil in the area under the flight paths, won't this hinder using the airport at full capacity?

Question AB 46: How can you have a landmark scar without their being a landslide hazard?

Wildlife Attraction Guideline

Question AB 47: Is the Third runway inconsistent with the FAA wildlife attraction rule?

Question AB 48: Is the 600 foot runway extension inconsistent with the FAA wildlife attraction rule?

Question AB 49: Why doesn't the EIS apply the FAA "wildlife attractions' rules consistently?

Rationale : The FAA has indicated that "wildlife attractions' within 10,000 ft of the edge of any active runway is not recommended (SEIS pg. 1-11). Page 5-5-13 used the "wildlife attractions' rationale to explain why the wetlands mitigation would be in another basin. But, using that same rationale, the Third runway and the other runway extension shouldn't be allowed considering the following are examples of items within 10,000 feet:

(1) bald eagle nest on Angle Lake just 3907 feet from airport (see FEIS)
(2) bald eagle nest in Normandy Park.
(3) Normandy Park Park (hiking trails in forest)
(4) Burien Park
(5) Marine View Drive Park (hiking trails in forest and along water)
(6) Puget Sound
(7) Many Lakes (Lora (visited by an otter annually, Arrow, Bow, Tub, Angle, and possibly Arbor Lake depending on which map in the SEIS is scaled accurately)
(8) Miller creek with active salmon run and Des Moines Creek

Note, the SEIS interpretation of the wildlife rule is different than the verbal interpretation the FAA gave A. Brown in 1994. They told her it only applied to things like garbage landfills and the fact that we have wetlands, bald eagles and a strip of restaurants adjacent to the airport was irrelevant. They noted that bald eagles do not present the bird strike hazard that geese do because of where and how they fly.
The FAA should clarify and then apply this guideline consistently in the SEIS.

Endangered and Threatened Species

Revision AB 50: The SEIS needs to be revised to accurately report the impacted endangered and threatened species on each page that mentions them.
Question AB 51: Why are the political ramifications and possible schedule slides resulting from destruction of the environment used by rare species understated in the SEIS?
Question AB 52: Why are the possible schedule slides resulting from successful breeding of bald eagles not mentioned in the SEIS?

Rationale : The area is one of the "Top 200" that World Wildlife Fund (Reference (www)) has decided to focus on. The Sierra Club has passed a resolution against the Third Runway.

SEIS Pg. 1-11 indicates raptors are not nesting on the west side but neglects to mention the nesting bald eagles on the east side. This needs to be revised to add "bald eagles are nesting in the east side of the airport less than 3907 feet from the airport and the project will reduce their foraging area by at least 274 acres". Note, 0.74 miles in the FEIS on page IV 17-1 equals 3907 feet. Reporting this distance as a fraction of miles increases the probability that a reader may not realize how close the nest is, so I suggest this number be reported using feet instead.

Revision AB 53 : The impact on salmon and other fish needs to be addressed in more detail.
The impacts to salmon and other fish were not adequately addressed. Studies such as the DNA ones in reference (mm) are needed (see also

references (nn) and (oo)), particularly considering the fuel incident mentioned in the DEIS that killed all the fish in Miller Creek.

Wetlands

Question AB 54 : Does the 274 acres in the following statement include all projects in the SEIS such as SASA or does it refer just to the Third runway?

> 'As a result of the proposed new parallel runway construction, approximately 274 acres of forest, grasssland and wetlands potentially suitable for bald eagle perch and foraging habitat would be permanently lost" (FEIS IV17-3)

If it just refers to the Third runway, what is the total number of acres impacted by all the airport related improvements in the airport area, even if outside the small study area but still in the same basin? How many areas are impacted at the off-site fill locations?

Hazardous Clean Up

Question AB 55: What are the cost estimates associated with hazardous materials clean up?

Revision AB 56: Exhibit IV-2.1-1, Hazardous Substances Risk Sites in FEIS should be updated in SEIS. This should also indicate probable sites for asbestos, lead paint, and underground oil tanks of property that previously had buildings. Note, also, that some Port estimates of the number of oil tanks that were reported in local newspapers appear very low considering the number of buildings impacted and the popularity of oil heat at the time the buildings were erected.

Comments: In the DEIS this was dismissed as insignificant but additional hazards have been identified since that time. Considering the ongoing delays with the North SeaTac project regarding asbestos, oil, and dust violations (ref. (hhh), (ww) and (fff)), hazardous clean up costs and schedule delays need to be considered. Known problems include asbestos, oil tanks, gasoline stations and sludge farms (ref. (d) and (ww)).

Fill and Construction

Question AB 57 : Will the land that 154/156 St. is suppose to be relocated to, hold up the weight of vehicles or is it so soft it will require excavation?
Question AB 58: How much soft or contaminated soil must be excavated for (1) the existing Master Plan Update (2) the other planned projects including those the SEIS mentions that are not part of the existing Master Plan?

Question AB 59: What are the risks that the oil tanks, left in the ground when houses were abandoned, now have contaminated soils around them that must be removed?

Question AB 60: Is it assumed fill will come from the Des Moines Creek Campus even though the project's been canceled?
Rationale : Table 2-7 indicates "Development of Des Moines Creek Campus" This project was canceled. The FEIS assumed fill dirt would be obtained from this location.

Question AB 61: How much must the retaining wall slope design be compromised to avoid impacting Highway 509?

Question AB 62: What is the steepest slope that will be used in the retaining wall design?

Question AB 63: Will standard practices be used or is a special unique design needed for the retaining wall?

Question AB 64: Why were sketches at the low points of the retaining wall included in the SEIS rather than the tallest section?

Question AB 65: Considering the proximity of the retaining wall to the aquifer, our drinking water supply, what are the risks of the retaining wall construction materials contaminating the groundwater or Puget Sound?

Question AB 66: Considering the proximity of the retaining wall to the existing soft soils, what are the risks of the retaining wall construction materials retaining their integrity over time even assuming the existing soft soils are removed?

Question AB 67: Considering some soil is so soft, the Miller Creek Restoration team was able to sink a 20 foot stick into the creek bed as easily as a straw in a milk shake, what are the risks of excavating those areas and what are the uncertainties with the amount of soil that must be excavated?

Question AB 68: Is it possible that it may not be feasible to excavate all the soft soils and the runway will need to be built on top of soft soils?
Question AB 69 : How much engineering data is their to support the premise that construction projects can be accomplished in such a way that the soil is stable and the retaining wall will remain intact in an earthquake? Please site specific references.
Question AB 70: If the retaining wall fails due to earthquakes, landslides, or inadequate design, what is the estimate for loss of life and property damage? and environmental damage
Question AB 71: What are the underlying engineering assumptions being used that support the impervious surfaces will be stable?
Question AB 72: What are the underlying engineering assumptions being used to support that the retaining wall will be stable?
Question AB 73: What are the underlying engineering assumptions that lead to the assumption that the rest of the airport won't start shifting as a result of the over 80,000,000,000 pounds of fill being placed on what is now wetlands and an aquifer?

Rationale : Considering a lane on First Avenue is closed because it is no longer stable, what is the life of a retaining wall without the proper slope.
Considering the retaining wall design should include an additional strength calculation factor added for earthquakes, be able to accommodate a fluctuating water table, and is three times the normal height of retaining walls in some locations, how can standard practices be applicable?
Significant civil engineering challenges are being treated as "standard practice" such as the earth retaining wall about 3 times the standard height.
A design is needed to determine costs and feasibility. The design should accommodate a minimum of an additional 10% lateral pressure (ref. (rrr)) to account for the earthquake sensitivity in the area (rated 4 on a scale that only goes to 5)

The "soft" soil in the airport area needs to be removed yet the amount hasn't even been determined yet according to the FEIS (ref. d). It is not part of the 26.4 million cubic yards.

The contaminated soil in the airport area needs to be removed yet the amount hasn't even been determined yet. It is not part of the 26.4 million cubic yards. Not only has the unknown quantity of contaminated soil been ignored, the Port has even forgotten about the soil that is known to be contaminated such as that in the proposed Snow Equipment Storage Shed area (ref. (ggg) from Port contradicts FEIS ref. (d) page IV 21-2).

No matter how simple the construction sounds in the SEIS, politics can't change the fact that the land needed to make the expansion of the airport in reality is really a combination of wetlands and covered over peat bogs that cover the area's aquifer (our drinking water supply). Can the "land" ever stabilize?

Question AB 74: What are the densities and type of fill needed for the Master Plan Update Projects and other necessary projects?

THE CORP MUST CONTROL THESE !

Question AB 75: What will be the impact to the construction schedule, fill costs and fill availability if the Department of Natural Resources reverses their position in the SEIS and consequently decides to enforce RCW 78.44 rather than taking exception to it?

Rationale : Excerpt from March 1997 letter to WA Dept. of Natural Resources
Attention:
Region Manager: Ms. Bonnie Bunning
Commissioner of Public Lands : Ms. Jennifer Belcher

Subject : Permits for Mining in Sea-Tac Airport Area

This is regarding your letter dated March 20,1996 issued by Ms. Bunning and David Pierce, that is reproduced in the Sea-Tac Airport's Supplemental Environmental Impact Statement.

What is your rationale for taking exception to Washington State Surface Mining Act (RCW 78.44)? Your letter states " A Surface Mine Reclamation Permit is not required for borrow sites located within the Port of Seattle Ownership" even though the sites are not "adjacent or contiguous".

Ignore this. The Dept of Natural Resources decided to enforce RCW 78.44 as a result of letters like this.

Potential borrow sites 1,2, and 3 are not only are so far south of the airport that neighborhoods and major public streets like S 188th and S 200th separate them from the airport, they are even located in a different city. These proposed borrow sites act as a noise buffer, pollution buffer, and are a habitat for endangered and threatened species. These functions can not be performed if the intended strip mining occurs.

Site 4 has similar issues as 1,2, and 3 but some of it extends into the SeaTac city limits (it's immediately north of S 200th).

Site 5, which is across a public street and on the other side of the highway from the airport, is located within the federal and state mandated wellhead protection area and is over the aquifer. Its purpose is to provide drinking water. It is not intended to be a parking lot , after being excavated, as the SEIS suggests. I urge you to read the Seattle Water Departments letter in the SEIS on page E-6.

Area 8 is across a public street from the main airport area and consists of wetlands.

Using your "exception" as currently worded, the excavating of the proposed wetlands mitigation area in Auburn, which is mentioned in the SEIS, could also be allowed.

Please provide specific examples where you have applied or tried to apply this "exception" in the past. Was its legality ever challenged ? If so, please provide a brief summary of the outcome and the case number.

Surface Traffic

Revision AB 76 : Considering the traffic jams, pollution, schedule delays, and accidents associated with Permit PWD0115-96 (ref.(gg)) that hauled dirt to the south Runway Safety Area in 1996, the SEIS needs to be revised to admit to the significant problems that could be in the critical path of the project's schedule.

Revision AB 77: Construction traffic models need to be rerun with realistic speeds and lane closures.

more ↗ pollution

Revision AB 78: The surface traffic models are so inaccurate that they misleading with regard to pollution, construction feasibility, construction schedule etc. and need to be revised.

Question AB 79: Have the proposed road improvements considered that by improving one section of the road, congestion shifts to another portion of the road or another road?

Revision AB 80 :How can the FEIS and SEIS be sure safety won't be impacted?

Question AB 81 : How many cubic yards of fill were the double haul trucks for Permit PWD0115-96 (ref. (gg)) able to haul on the average?
Question AB 82: Using this amount hauled by permit PWD0115-96 (ref. (gg)) does the 1,200,000 haul truck figure in the SEIS need to be increased?
Question AB 83: If the loads are covered can they carry as much as they did for permit PWD0115-96 (ref. (gg)) ?

Rationale :

(1) Traffic Hazards Dismissed or Underestimated

How many accidents will there be as unsuspecting drivers suddenly see what looks like an explosion near-by? When the dirt associated with permit PWD0115-96 (ref. (gg)) at the south end of the airport is dumped, it creates a huge sudden thick dust storm. While driving down S 188 St., it is extremely distracting since your initial reaction is to assume there has been an explosion due to the incredible size and density of the dust.

The FEIS (ref. (d)) says that you can put over 3000 trucks per day on the roads around Sea-Tac, even ones with unusually high accident rates, and not impact safety (ref. (d)). That defies logic if you are familiar with the particular roads.

The FEIS response R-28 that "increased truck traffic on any leg does not impose any increased traffic risk" contradicts the Dept. of Transportation conversations with A. Brown the summer 1995. The conversations resulted in Department of Transportation providing the SR 509/SR 518 interchange data because they said it was the area's most hazardous traffic location. It is no surprise that a double haul truck "jack knifed " at that location on September 18, 1996. Now that there are many haul trucks taking that route, the community has additional concerns based on data. It is much more difficult to merge onto north bound SR 509 using the 160 St. entrance when the haul trucks are present. A. Brown already knows someone involved in an accident on 188th that blames the recent construction hazards. In addition, there was also a fatal accident there recently involving a car and truck (it was early evening so haul trucks may not have been present) (ref. jj). The August 1996 forty vehicle pile-up on Interstate - 5 that resulted in at least one dead child had a jack-knifed double haul truck at the front (ref. (jjj)). Was it traveling to Sea-Tac airport?

The commute was not only longer , but also more HAZARDOUS, as a direct result of hauling a TINY FRACTION of the amount that will be needed for the Third runway !!!!!!!!!!!!

The FEIS (ref. d)) also says you won't impact safety on roads that have yet to be defined, in cities yet to be selected. How can the FEIS be sure safety won't be impacted? This is not a "standard practice" hauling job. Over a million double haul trucks is difficult to conceive. Considering SeaTac PWD0115-96 (ref. (gg)) usually has 5 double haul trucks in a row, with one car in between each, even though it "only" requires hauling less than 2% of the dirt in 1/4 the time than the Third Runway, what will things be like if the Third Runway construction begins?

If you ratio the amount of dirt to the number of months needed for the current permit work and assume the same rate for the Third runway,
It would take over 50 years to haul
the 26.4 million cubic yards of dirt !!!

To avoid taking about 50 years, the traffic jams from the Third Runway and associated additional pollution will have to be much worse than the summer of 1996 south end airport construction traffic congestion and construction pollution.

(2) Traffic Congestion Inadequately Addressed

The thousands of double haul truck trips a day will severely impact transportation. SeaTac permit PWD0115-96 (ref. (gg) for double haul trucks currently traveling to the south Sea-Tac airport construction site are traveling about 15 mph below the speed limit and come to a full stop to turn on the roads around Sea-Tac. The FEIS (ref. (d)) transportation assessment does not address the 3 or more years of traffic jams. Permit PWD0115-96 (ref. (gg)) is for less than 2% of the dirt required for the Third Runway project but increased commute time by about 2 hours per week for those using S 188 St. The current construction site had speed limit signs that are 10 mph below the street's customary speed limit and signs that read **"Be Prepared to Stop"**. Neither the reduced speed or full stops were considered in the FEIS traffic analysis.

These traffic and pollution concerns are shared by many as illustrated by the multiple complaints being phoned into Bruce Rayburn, SeaTac Public Works Representative, the local newspaper publishing complaints (ref. (hh)), and the Highline school district has said the construction is "expected to cause delays when students return to school in September" (ref. (ii)). See appendix for letter that accompanied a petition sent to SeaTac Public Works.

The number of just double haul trucks is about equivalent to all the vehicles that travel over a busy section of Interstate-5 in about a week's time (based on data from FEIS page R-153 (ref. (d)).

The traffic assessment is illogical . It assumes more traffic with Alternative 1 than New Port alternative 3 (114,000 vs. 113,300 SEIS pg. 1-8). Yet it says additional 95PM peak hour trips in 2010 with Alternative 3.

SEIS Section 5-4 references the FEIS Appendix J. It assumed 70 miles per hour highway design speeds, all lanes open, and level terrain for some highways. Were these same assumptions used in the SEIS traffic analysis? The current speed limit on SR518 is still 60 mph. On I-90, a likely truck haul route, which has raised the speed limit for cars to 70 mph, retained the 60 mph limit for trucks. Traffic models with these high densities of trucks need to use the lower of the following speeds (1) truck speed limits or (2) actual vehicle speeds consistent with realistic LOS conditions. Are the traffic models models overly optimistic? See other related comments herein, particularly page AB 33.

Seattle is tied as the sixth worst traffic congestion in the US and is rated as the fourth highest congestion tax (cost of wasted fuel and time while in traffic).

Is road construction underway?

Question AB 84: Is any of the clearing of brush, preparations to build roads or actual building of roads that has been going on at the airport, related to trying to provide roads for haul trucks?

Question AB 85: Would the road construction activity at and around the airport be as high if the Third Runway proposal was killed?

Comments : There appears to have been significant activity related to roads in and around the airport in recent years, particularly along side Des Moines Memorial Drive and S 188th.

Transport Across Public Streets of "On-Site" Fill

Question AB 86: How will the fill get across S 200th, a public street?

Question AB 87: How will the fill get across S 188th, a public street?

Question AB 88: If the runway area bridge over S188th is used for haul trucks, will it reduce the use of the runway?

Rationale : On-site fill is assumed to not impact public roads in the DEIS, FEIS and SEIS. Will bridges or conveyer belts be built over the public roads?

Impacts

Question AB 89 : Why isn't construction pollution adequately addressed? The complete impact of thousands of truck trips per day plus all the associated construction equipment and traffic for YEARS needs to be fully addressed. These calculations need to be done using the actual pollution levels and then adding the trucks/equipment using pollution parameters (emissions in grams per mile) consistent with the age of the trucks and a realistic speed (typically a maximum of 15 mph below the speed limit except on highway exit ramps). Cumulative impacts from other projects in the area need to be included in the calculations.

Haul truck pollution in the DEIS was estimated far below the current federal standard emission indices for new trucks manufactured in the U.S. Realistically, doubling the particulate levels presented in the DEIS would still be too low, but when added to construction dust, would exceed the PM_{10} short term standard every day. What is high particulate impact on creeks?

Question AB 90: Why isn't the cumulative particulate pollution adequately addressed in the FEIS or SEIS?

Question AB 91 : What is the impact on the children swimming in the outdoor YMCA pool or on the play toys outside Kindercare, both a short walk from the airport's dust storm construction site, the south Runway Safety Area?

Question AB 92 : What will be the impact on the children swimming in the outdoor YMCA pool or on the play toys outside Kindercare, both a short distance from the proposed Third runway site?
Question AB 93: Considering this current construction is nothing compared to the Third Runway construction (about 2%), how can the FEIS and SEIS treat the pollution subject as so trivial?

Permit PWD0115-96 (ref. (gg)) for double haul trucks currently traveling to the south Sea-Tac airport construction site has resulted in a dust storm that made it difficult to breathe, particularly on the "Smog Alert" days (July 1996). The accumulation of dust and dirt on vehicles that drive by there a few times appears worse than a year in a standard urban environment. This is causing wear and tear on property as well as an increased use of water for cleaning. Impacts from significant projects such as this must be considered in conjunction with those in the FEIS (ref. (d)) and probable new projects mentioned in the SEIS.

The National Resources Department Council Urban Environmental Program report in the words of their Senior Attorney Richard Kassel is " the latest in an overwhelming and ever-growing body of evidence that particulate pollution contributes to **ill health and early death**" (references (uu), data in ref. (vvv)) (bolding added for emphasis).

Question AB 94: What are the impacts if the employee parking lot N of SR 518 can't be constructed?
N of SR. 518 for employee parking lot (SEIS pg. 3-15) requires filling 1 acre of wet lands (3-13) and requires excavation of Borrow site 5 (pg. 5-5-7) which has hydrocarbon contamination per FEIS. Also, the Seattle Water Departments' wants a legal indemnity agreement because it will contaminate the drinking water supply for the area (SEIS Appendix E)

See Agreed Order 97TC-NI22
DOE / Port of Seattle

SEIS Chapter 4 : Affected Environment Issues

Revision AB 95 : Page 4-4 Aviation Subcommittee hearings. This section should reference an appendix with the complete testimony of Michaelis and Hockaday. Considering there is a question whether the Third Runway will even

increase capacity under poor weather conditions, rebuttal of their testimony is needed.

Revision AB 96 : Pg. 4-7 Need to add the Ray Akers appeal regarding HUD noise violations and also mention the issue of the Flight Manual changes that occurred without the authorization of an FEIS

Chapter 5 : Environmental Consequences

Revision AB 97a: Page 5-1 needs to be revised. The Third runway does not permit unrestricted departure weights or accommodate 99% of the aircraft. Rather, the 600 foot extension of the existing runway provides these benefits.

Note, the Albuquerque airport dismissed an alternative to build a runway of the same length, i.e. 8,500 because of its inability to support Type V aircraft. (ref. ttt).

Revision AB 97b: The SEIS needs to be rewritten to differentiate the impacts and benefits from the 600 foot extension versus the short Third runway.

Revision AB 98 : The second Page 5-1 should be labeled 5-2

Revision AB 99 : The data for 425,000 operations for year (2003 and 2013) and delay costs ($146M and $132M) on the second page 5-1 do not match page 5-5-7 and 5-6-16. One of these pages need to be corrected.

Question AB 100:What are the delay losses if the FAA TAF estimates are correct for 2005 through 2020?

Question AB 101: Isn't the Third Runway a poor investment considering it is going to cost the surrounding cities much more than $3.3 billion identified to date in the Burien Study plus has a project cost that exceeds $3.3 billion but it is projected to save only $136 million in 2003 and $454 million annually by 2019. Even if the Third runway was operational right now, using FAA guidelines that at 60% Annual Service Levels (ref. (ttt)) alternative planning for a fourth runway or use of alternative airport(s) should have begun years ago. Waiting until the year 2000 for another Master Plan Update is contrary to FAA planning guidelines *(60% of 600,000 max. operations with Third runway = 360,000 operations). According to FAA guidelines construction at 80% capacity construction should start. That's about the year 2005 using FAA TAF estimates and 2010 using the Port's estimate IF the Third runway was already in use.*

Question AB 102 : Page 5-5 Delete or clarify "minimizes aircraft push-back and taxiing conflicts as flights enter and exit the terminal". As discussed in the FEIS the Third runway increases the incursion rate by 21% using the "low " FEIS capacity so the accident risk is presumably even higher with the new increased capacity numbers.

Question AB 103: Page 5-2-6 Change item 2 to indicate that Alternative 3 creates and/or worsens exceedences of the Nitrogen dioxide ambient air quality standard (AAQS). This is true even using the low New Port estimate of operations but even worse if the FAA TAF estimates are correct.. See page 5-2-5 that refers to 0.08 ppm at the S 154 receptor which exceeds the 0.053 ppm annual AAQS Note, also that the public routinely park and picnic along side S154 to watch the airplanes land and take-off . Either "No Parking" signs or signs warning of the health hazard are needed in all areas with exceedences as part of a mitigation strategy.

Question AB 104: Page 5-2-6, Were the nitrogen oxides and ozone modeled assuming 40F as the annual temperature as some of the other air pollution was in the FEIS? If so, what are the values for the hot summer temperatures in July-August if typical summer temperatures are used in the model?
Question AB 105: How many days exceed the annual AAQS for nitrogen oxides and ozone if seasonal high temperatures are used in lieu of 40F?

Question AB 106 :Page 5-2-11 Need to change that Alternative 3 exceeds the applicable de minimus threshold rates when:
1) using the FAA TAF operations estimates
2) using the NPIAS defined theoretical capacity for Alternative 3 compared to the "Do-Nothing" alternative (630,000 versus 460,000 operations respectively)

Note, if the model has not been run using the high summer temperatures and summer air traffic peak operations then it needs to be run to determine if that condition also has exceedences. Also, it should be noted that the SEIS calculations assumed Alternative 1 had 14,000 annual operations above the theoretical maximum so there is a larger difference between Alternative 1 and 3 than stated in the SEIS.

Question AB 107: Exhibit 5-2-4 : The receptor locations do not adequately reflect (1) the significant number of intersection take-offs that are planned , (2) the data from either end of the new proposed runway or (3) the new end of 34R runway. Additional receptors are needed in the model.

Question AB 108: Has the destruction from strip mining been considered in the pollution model?
In order to reduce wildlife hazards the removal of some trees is being considered. This will increase the pollution, particularly nitrogen oxides. The amount of vegetation to be removed needs to be coordinated with the air pollution agencies, particularly if the model uses data from the actual monitoring program that has been arranged under the Memorandum of Agreement.

Question AB 109: How do the assumptions regarding % usage of runways impact the pollution calculations?
(pg. 5-3-4 Third runway By 2005 20% approaches and 4% departures but in 2010 states 44% approaches)

Question AB 110: Have you taken into account the actual noise of some stage 3 is louder than stage 2's?
Comment: SEIS pg. 5-3-5 "even with the new parallel runway, the noise exposure pattern of each future alternative would be between 42% and 46 % smaller than the noise exposure pattern of the existing condition" .
This does not take into account hush kits are just "rule beaters' Often aircraft such as MD-80's exceed the side noise allowance by making less take-off noise so their total noise allotment complies. Therefore, they are actually louder to those on the sides than some stage 2 aircraft.

Revision AB 111: Page 5-4-2 The pollution and construction traffic modeling need to account for hauling in excess of 16 hours per day and 109 one-way truck trips per hour in the good summer weather referred to on Page 5-4-2. Impacts during peak conditions need to be assessed.

Revision AB 112 : Page 5-4-42, Eliminate dots for sites on Exhibit 5-4-1, Off-Site Material Sources that have been eliminated based on Table 5-5-3
Rationale: Exhibit gives false impression that numerous sites are available when only seven sites are still under consideration.

Revision AB 113 : Page 5-4-42 Add a scale to Exhibit 5-4-1, Off-Site Material Sources
Rationale: The FEIS and SEIS omit scales whenever it would indicate to the reader the long distances that need to be traveled with thousands of double haul trucks daily

Revision AB 114: Page 5-4-44 Add a scale to Exhibit 5-4-3., Potential Barge Transfer Locations
Rationale: The FEIS and SEIS omit scales whenever it would indicate to the reader the long distances that need to be traveled with thousands of double haul trucks daily

Revision AB 115 : Increase flood plain storage on SEIS Page 5-5-20
Rationale :10,000 cubic yards of floodplain storage and floodway conveyance is inadequate based on increased frequency and severity of flooding that the Burien/Normandy Park area has experienced that coincided with airport and Boeing related construction on both sides of S154 St. as well as the south runway safety area.

Question AB 116: Were the Alternative 1 noise impacts calculated based on 474,000 operations (New Port estimate) rather than the 460,000 theoretical maximum? Rationale: Page 5-6-4 notes that there will be more residences, parks, churches and schools impacted with 65 DNL or greater noise with Alternative 3 than with the Alternative 1.

Question AB 117 : What is the difference in noise of the theoretical maximums of 460,000 for Alternative 1 and 630,000 for Alternative 3 are used?

Question AB 118: Why isn't the inadequacy of mitigation funding noted?
Rationale : Pg. 5-5-6- $50 million can not possibly even complete the noise mitigation required for the second runway, which is still incomplete after 20

years, much less provide any meaningful mitigation for the Third runway if noise is to be kept to 45 dBs in the classroom and the noise calculations are done on the school day rather than averaging quiet nights in with noisy days.

Question AB 119 : Why wasn't the FEIS induced socio-economic section rewritten to reflect we do not live in cold climate homes and therefore, we are impacted more than the FEIS assumed (see SEIS pg. 5-71)?
Rationale : In the FEIS response to comments the FEIS says that only 10% of the homes are cold climate yet the FEIS assumes they were cold climate and therefore, insulated. Noise impacts on temperate climate homes are greater than cold climate by about 15 dB, thus greatly increasing the area impacted as well as severity.

SEIS Appendix C-1 Surface Traffic

Revision AB 120 : Table C-1-1 Need to add construction for year 2000 for alternative 3

Question AB 121: Why do Tables C-1-3, C-1-7, C1-9, C-1-13 and C-1-15 assume Alternative 1 and 3 are the same when Alternative 1 has considerable less operations?

Rationale:

Table C-1-3 incorrectly assumes the same number of passengers in 2005 and 2010 for both alternatives. Do Nothing has less than the "preferred"

Table C-1-7 incorrectly assumes the same amount of employee traffic in 2005 and 2010 for both alternatives. Do Nothing has less than the "preferred"

Table C-1-9 incorrectly assumes the same amount cargo traffic in 2005 and 2010 for both alternatives. Do Nothing has less than the "preferred"

Table C-1-13 incorrectly assumes the same amount of general aviation traffic in 2005 and 2010 for both alternatives. Do Nothing has less than the "preferred"

Table C-1-15 incorrectly assumes the same amount of maintenance facility traffic in 2005 and 2010 for both alternatives. Do Nothing has less than the "preferred"

Example: Page C-1-17 refers to South 200th between International Boulevard/SR 99 and Interstate -5 as a "four lane, east-west principal arterial roadway". It should be noted that the speed limit is only 25 mph on S 200th because it is lined by closely situated single family residences. The road improvements on page C-1-23 for year 2000 on Military Road South, S 200th and I-5 will not ease the congestion on S 200th . This also applies to page C-1-51 for year 2010. See Question AB 79.

See also other areas herein that are related to this subject

Revision
~~Question~~ AB 122: Revise taxes
Note: SEIS Appendix D -Impacts through 2020 (2010 if use FAA TAF numbers) Table D-2 , Page D-10 needs the lost taxes revised to include lost real estate taxes in the impacted cities and any other tax issues in the Burien Mitigation study. Normandy Park house sales data was submitted as part of the DEIS comments but ignored because it was considered to be outside the study area. Considering as a direct result of the threat of a Third Runway, the average sale price has already dropped $75,000 the data indicates that the study area is much too small and the impacts much larger than estimated in the SEIS or even the Burien mitigation study. The loss in sales price ultimately translates into lost real estate revenue. See also socio-economic comments enclosed.

Revision AB 123: Table D-2 , Page D-10 needs the amount of Earth to be revised to be equal to 26.4 million cubic yards or a flag note needs to be added explaining that 23 excludes the 15% for settling.

Revision AB 124: The connecting road should be either be in both or neither pollution surface transportation analyses.

Question AB 125: How can 30 to 40 double haul trucks be insignificant to a congested road like Auburn Way North (SEIS pg. 5-5-18)?

Question AB 126: How technically and economically feasible is using Borrow site 5 for the new North parking lot as proposed in the SEIS when Borrow Site 5 was eliminated for consideration for the Third runway?
Rationale for question : FEIS Page IV 19-17 in the FEIS indicates that the 1.1 million cubic yards or 1.75 depending on cut geometry includes "petroleum hydrocarbon-contaminated fill in these estimates". The SEIS indicates because of cost considerations, it will no longer be used for the Third runway project but the SEIS elsewhere indicates it will be used for the parking lot.
Question AB 127 : Why is "using best practices" or "standard practices" acceptable answers throughout the EISs for mitigation associated with construction, excavation, and hauling tasks are that are orders of magnitude more difficult than what is customary ?
Question AB 128: What are the probabilities of being able to obtain the maximum quantity of on-site fill indicated in the SEIS considering topography,

peat bogs, aquifer, water levels, seismic anomalies, contamination, incomplete soil surveys, debris from buy-outs, etc. ?

Question AB 129 :What accounted for the increase in Borrow site 1 fill estimates?
Question AB 130: Does the SEIS, unlike the FEIS, assume excavation in the low lying areas where there is a "likely occurrence of shallow groundwater (ref. FEIS page IV 19-17)?

Question AB 131: How many on-site fill square miles previously had homes or businesses that may have had in-ground oil tanks ? How many of these square miles are known to be contamination free?

Question AB 132 : Is it true that this project will use all of the local areas fill for the next 10 years if no new strip mining permits are issued and no on-site fill is used?
Question AB 133 : What percent of the presently permitted sites within 10 miles of the airport will be available for non-airport related projects assuming no on-site fill is used?
Question AB 134: What percent of the presently permitted sites within 20 miles of the airport will be available for non-airport related projects assuming no on-site fill is used?
Question AB 135 : What percent of the presently permitted sites within 30 miles of the airport will be available for non-airport related projects assuming no on-site fill is used?
Question AB 136: What is the realistic schedule for new strip mining permits?
Question AB 137: What is the total likely estimate of required fill including replacement of contaminated soil, soft soils, and adjustment for shrink/swell?
Question AB 138: What is the worst case total estimate of required fill including replacement of contaminated soil, soft soils and adjustment for shrink/swell?
Rationale : The adjusted fill requirements are 26.4 million cubic yards (SEIS C-4-5) excluding replacement of soft soils and contaminated soils so the total requirement exceeds 26.4 million cubic yards. The critical path for construction is the fill availability. If inadequate fill is available the construction schedule could slide several years or even more if haul costs exceed original estimates.

Question AB 139 : Why does Table C-4-3 show 66 peak hour trucks when elsewhere in the SEIS it discusses 109 one-way truck trips in the summer months?

Question AB 140 :How many cubic yards did the 1996-1997 runway safety area trucks carry?

Question AB 141: Will the trucks really carry 22 cubic yards or do they typically carry 17.5 cubic yards?

Rationale : Using numbers in a newspaper article the 1996-1997 runway safety area was only able to transport 17.5 cubic yards of fill instead of the 22 assumed in the SEIS.

?

more trucks → more water pollution

Question AB 142: When on-site fill needs to be replaced, such as when its removed from the SASA site but eventually needs to be replaced to finish SASA, the replacement fill needs to also be identified. Has the 26.4 million cubic yards been adjusted upwards to include the eventual replacement fill?

Question AB 143 : What are the socio-economic, economic and environmental impacts if all cities surrounding the Sea-Tac airport are considered?
Question AB 144: Why don't the property devaluation estimates in the EISs pass a sanity check?
Question AB 145: Are some property values low because the Port bought out average to high income families and then rented the same property to low income families so that over time the neighborhood degraded?
Rationale: The study area needs to be enlarged to include all cities being devastated economically and environmentally by the proposed Master Plan Update. The increase in noise contours, increased flooding, and loss in potential real estate revenue justifies the increase in study area. As shown in the table below the threat of the Third Runway has depressed appreciation so much that the average loss in 1996 tax revenue is $1028 per house in Normandy Park. Normandy Park sales data was submitted as comments to the DEIS (1988 thru 1994) and ignored. The DEIS answered the question with SeaTac city numbers.

Table RE-1 : Normandy Park Depreciation Slowed by Third Runway Publicity

Year	Puget Sound Multiple Listing Average House Price /1/	Normandy Park Average House Price /2/
1988	$104,414	$178,416
1989	$129,932	$210,312
1990	$155,003	$241,858
1991	$156,012	$235,034
1992	$157,429	$240,699
1993	$163,822	$237,919
1994	$171,522	$240,419
1995	$173,345	$238,429
a) 1996 actual	$179,163	$252,568
b) 1996 if Normandy Park had continued to appreciate at same rate as Puget Multiple Listing rate		$ 328,338
Loss in Value due to decreased Appreciation between 1988 and 1996 (line c = line b - line a)		$75,770 loss per house
1996 Tax revenue lost per house		$1028 per house lost in 1996 tax revenue

/1/ Includes Snohomish and King County plus the northern portion of King County

/2/ Excludes waterfront homes

Question AB 146 : Considering property outside the general study area is now required to list "airport noise" on the legal real estate property descriptions, how can the SEIS justify the small study area?
Rationale : Listing "aircraft noise" on property descriptions will drive real estate values even lower. See Normandy Park calculations prior to this new reporting requirement.

Other

Question AB :147 Why is the selection of measurement units biased in favor of the Third runway?
Rationale : The EISs tend to use whatever measurement units are least likely to raise a red flag to a reader opposed to the Third runway. This editor's trick is used in reporting bald eagle distances in fractions of miles rather than as 3907 feet, pollution calculations (tons versus grams) and surface transportation data in the EISs.

Revision AB 148 : Pg. 2-24 sentence Obstacles exist.... "
Need to add law suits and appeals, particularly considering the court date is set for January 1998. Also time to obtain permitting for strip mining should not be underestimated despite the Department of Natural Resources letter in Appendix E. Do you really believe the City of Des Moines is going to allow an exception to RCW 78.44 without taking it to court?

Revision AB 149: SEIS pg. 3-9 needs to be revised
Regarding the "consensus" of the region is that a supplemental airport is not viable (SEIS page 3-9) . The only consensus I am aware of is that in most circles it is considered "political suicide" to defy the Third runway and opposing it will result in threats against your business and possible transfer from your job if you are in a position to influence the outcome. Considering THREE unincorporated areas of King County became cities so that as a body of five cities they could sue the Port is hardly a indicative of a consensus. The area now has a new county movement and will become a new county unless the legislature changes the law to make it virtually impossible to do so.

Question AB 150: Considering the Port's track record at estimating operations, enplanements and implementing mitigation, what justification can you provide to lend any credibility to the SEIS and other supporting documents?
Rationale : The Expert Arbitration Board findings cast grave doubt on the Port's noise modeling, willingness to fulfill legally binding mitigation responsibilities, etc.

Health

Question AB 151: Why wasn't statistically significant health data addressed adequately?
The high incidents of diseases, particularly rare ones, around Sea-Tac airport are not given serious consideration in FEIS (ref. (d)) or SEIS. Likewise, the ongoing high infant mortality rates in South King County contrast dramatically with the 61% decline in deaths for Seattle from 1988 to 1994 (refs. (qq) and (kkk)) and is not considered in the 1996 FEIS. Also see separate list of health references.
This proposed Sea-Tac expansion has heightened the awareness of some citizens of the significant pollution risks. Can the taxpayers really afford the lawsuits that will advertise that the "current airport operations are likely responsible for formaldehyde levels 23 times the WDOE's Acceptable Source Impact Level ..." (ref. (ee)) ?
Ethylene glycol deicer is being released untreated into our water. Some children wade in that contaminated water !!! The FEIS (ref. (d)) will be corrected to reflect the ethylene glycol contamination when the Record of Decision is issued but agencies such as the Seattle Water Department ~~have not~~ have been notified of this important critical change?
See also pollution comments herein.

Did SEIS correct this?

Safety

Question AB 152: What are the probabilities of in-air collisions, on-the-ground incursions risks considering the operations of the other airports as well as Sea-Tac's using 1) the New Port estimate and 2) 2010 TAF estimate, 3) 630,000 operations and Alternative 1 2010 ?
Comment : FEIS indicates 21% increase incursion rate.

Question AB 153: What are the increased risks airplane parts falling on neighborhoods using theoretical maximum operations for alternatives 1 and 3.

Question AB 154: What are the increased risks of airplane parts falling on neighborhoods using theoretical maximum operations for alternatives 3 compared to 260,000 operations for alternative 1 (the number of operations the existing noise boundary and prior mitigation agreements are based on)

Rationale: Considering the increase operations in the SEIS, what are the accident probabilities now (air-collisions, bird strike, etc.) ? According to page 5-5-16 approximately 20 bird strike incidents happen per year. By adding a Third runway that is only 800 feet from the adjacent runway creates a greater hazard. As you know, a petition was submitted by pilots indicating that even at the lower number of operations they considered the Third runway to be too dangerous. FEIS (ref. (d)) states in one place the Third Runway will be safer but page R-43 states there is a 21 % increase in on-the ground incursion rate. How can it be safer to taxi across two active runways?

The air space would also be shared with another airport, Boeing Field. Excerpts from a petition signed by commercial airline pilots follow:

> **"... Our association, A.L.P.A., has not endorsed the proposed 3rd runway because of its marginal safety"**

Because Sea-Tac does not have a buffer zone between it and neighborhoods, any accident has the potential of not only killing those in the airplane but residents. We have numerous children in the area already traumatized by aircraft parts falling on school grounds while they were outside playing. Some have testified at various Third runway related hearings.

Alternatives

Question AB 155: Considering the increase in costs and sliding schedule for the proposed Third runway, why hasn't the search for other alternatives been resumed in accordance with WAC's cited in Table 2 of reference (c), namely WAC 197-11-070 (1), WAC 197-11-060 (4) c& d , WAC 197-11-030 item g, WAC 197-11-440 (5) b and WAC 197-11-786.

Question AB 156: Why wasn't Tenino Washington considered as an alternative site?
Rationale: Using the 1997 FAA TAF estimates and data in the SEIS, the Third runway provides inadequate capacity even when its brand new. It also violates the Clean Air Act, destroys over 10 acres of wetlands, disrupts over 274 acres of bald eagle/ blue heron foraging areas, and requires a more difficult civil engineering feat than the hauling/filling/compacting proposed for the Alburquerque New Mexico airport's proposed runway that they deemed "virtually impossible" to implement (refs. (sss) and (ttt)).
Considering it will ultimately cost billions more then the New Denver International airport but provide very little growth capability, the search for alternatives that was so abruptly halted needs to be resumed.

A new Environmental Impact Statement is needed to address alternatives because the SEIS indicates the only way Sea-Tac can support predicted FAA TAF growth is to add at least two additional runways by 2005. Using FAA planning guidelines, this planning is already behind schedule. Since the addition of a fourth runway will require the annihilation of two hilly cities, namely Normandy Park and Burien, the cost would be astronomical. Even if the civil engineering challenges could be met and the endangered species ignored, the buying out of multi-million dollar homes makes this option cost-prohibitive.

SEIS pg. 3-2, 3-4 and 3-9 PSRC EB-94-01 regarding alternative sites did not consider Tenino even though Oregon has expressed interest in helping to fund an airport at that site which is close to a deep harbor, Interstate -5 and the rail line.

Question AB 157: How could Sea-Tac add more runways cost-efficiently?

Regulation Compliance Risks*Question* AB 158: What are the likely construction schedule slides due to compliance issues?
Question AB 159: What are the risks, that Sea-Tac, like some airports in Europe, will need to close or curtail operations during times of high pollution?
Rationale
a) Schedule slides should be required to mitigate construction pollution each time a new receptor location violates the Clean Air Act

b) Schedule slides should occur during smog alerts such as those experienced July 1996
c) Schedule slides should be required to comply with the Endangered Species Act each time the bald eagles have eggs in their nests

Procedures

Question AB 160: Considering the significant number of procedures that were violated or are in the questionable category, what is a reasonable estimate for resolution of all related court cases and appeals?

Rationale : Some of the questionable procedures include:

1) Failure to Follow Administrative Notification Procedures

As outlined by Cutler & Stanfield (ref. (j)), the Federal Land managers were NOT provided an opportunity to review the air pollution documentation as required by the Clean Air Act.
As outlined by the Ravenna Bryannt comments (ref. (y)) several government bodies were not coordinated with as required by the HUD regulations and the Executive Order.

(2) Certificate of Compliance Issued Prematurely by Wrong Governmental Agency

Washington DOE issued the Certificate of Compliance (ref. (bbb)) but regulations (ref. (ccc)) require the Governor to do so. Under certain circumstances the Governor may delegate that responsibility to the EPA, not the DOE. The DOE did not even participate in the multi-year evaluation process but only became involved for the six months following the release of the FEIS (references (ddd) and (eee)). The FAA still has not issued the Record of Decision because of the magnitude of errors in the FEIS (ref. (d)). For example, the air traffic assumptions were so low in the FEIS they've been surpassed and ~~are being~~ were redone. The Port promised to correct the FEIS to admit to the release of untreated ethylene glycol but who knows to look for the change?
Question AB 161 : How many corrections were made in the FEIS and SEIS that should impact pollution compliance issues?
Question AB 162 : How do we identify the changes that were made in the FEIS and SEIS that impact pollution assessments?

(3) Unreasonable Appeal Procedures

The Port's NEW appeal process, Resolution 3211, dated 8 February 1996 is unrealistic and appears to be designed to preclude high quality appeals. It appears to be an obstruction of justice. To allow only 15 CALENDAR days to appeal a major controversial item such as the Third runway is unethical and should be illegal. A. Brown began requesting copies of the appeal process at least one week prior to the August 8 public notice, yet did not receive a copy until 12 August 1996, with a mere nine days left to respond. Had the call not been made until the day of the public notice, the time to respond would have been even less than nine days, including weekends.

The time period should have been extended and a submittal of revised comments permitted without additional charge.

The appeal charge of $300 is also high considering (1) it is not a judicial appeal and (2) the short time to appeal. There was only a little over a week to arrange funding for the appeal during prime vacation season. This made it very difficult, if not impossible, for some community groups to arrange a meeting to authorize funding an appeal.

(4) Key Comments Missing From PSRC Correspondence Packages

A critical Environmental Protection Agency (EPA) letter to the Federal Aviation Authority (FAA) (ref. (w)) was not in any of the PSRC correspondence packages A. Brown obtained directly from the PSRC . The letter states the "Draft conformity analysis does not support your conclusion that the project conforms to the State Implementation Plan". Unless overturned, this means that the **Third Runway is Ineligible for any Federal funding.**

Cutler and Stanfield request for an SEIS (ref. (j)) which was hand delivered to PSRC 6 June 1996 was also missing from the PSRC Correspondence packages as of 11 July 1996. It was referenced in "Response to Requests For Supplemental Environmental Review". The Cutler and Stanfield correspondence explains the ramifications of not meeting the Clean Air Act. Neither of these crucial comments (ref. (j) and (w)) were available in all the PSRC correspondence packages mailed out at the time of the PSRC General

Assembly vote, raising the question of the vote's validity if it wasn't just A. Brown's packages that were incomplete. The dates of the packages are continuous beginning with a package dated "April 3 through April 15, 1996" and ending with package dated "July 10-11, 1996".

(5) Useless Public Hearings

The 27 June 1996 morning public testimony was useless considering that as certain individuals voted on that afternoon of the PSRC Executive meeting, they referred to meetings held on PRIOR days that had already decided their vote (ref. (v)). For example, most of the Tacoma City Council members voted, without ever hearing the public testimony, For the Third Runway, at a separate meeting. Their representative then honored that prior direction when voting at the Executive Board meeting. See reference (aa) for additional comments on the procedures used at other meetings and reference (c) for comments regarding Open Houses. *I am sincerely convinced that anyone, except those with an interest in obtaining short term construction work, would be vehemently against the DEPENDENT, PART TIME Third Runway if they understood the total cost, tiny capacity increase, risks, and compared those factors to other alternatives , i.e., new air traffic technology , choosing a different airport to expand, multi airport system, reliever airport such as Moses Lake for cargo maintenance, or banking land for a supplemental airport.*

Other hearings such as the SEIS and DEIS ones involved speaking into a microphone with your back to the audience with no Port or FAA officials present, just a mediator.

(6) Inadequate Technical Review by Cooperating Agency

Some technical experts responsible for commenting on the Draft EIS (ref. (b)) had inadequate time to review it thoroughly because it took so long to reach their desk (routed through managers then eventually to the technical expert) (ref. (c)). Also, for many of the topics, it requires reading the entire Environmental Impact Statement to obtain all the relevant data. It did not reference related sections. Note, NEPA requires a clear and concise 300 pages.

(7) Illegibility of Comments Published in 1996 FEIS (ref. (d))

Comments were reduced to fit two pages onto one page. This made the size of the print too small to read in some cases and difficult to read in almost all cases. It was unreasonable to expect anyone to try to read and respond to the comments on the DEIS ((ref. (c)).

(8) Inadequate traceability of response to comments
In the FEIS (ref. (d)) and SEIS it is only sometimes possible to trace an answer back to the commentor which violates WAC 197-11-550. It is impossible for some to determine if their question was accidentally overlooked, intentionally ignored because it was unsubstantive, inadvertently misinterpreted ,or answered somewhere in the over 5,500 pages of the FEIS but they haven't happened upon it.

(9) Inadequate traceability of comments for Supplemental Review
In the "Response to Requests for Supplemental Review" (ref. (dd)) it is not always possible to trace an answer back to the commentor. It is impossible for some to determine if their question was accidentally overlooked, intentionally ignored because it was unsubstantive, or inadvertently misinterpreted so although the PSRC considers it answered, the commentor does not.

For example, some unanswered questions from reference (s) are:

How can the FEIS rely on "best or standard commercial practices" or "standard procedure" as a substantive answer when the engineering and environmental aspects of the task are far more difficult then "standard or best commercial practices"?
Considering reinforced earth walls typically have a maximum height of 50 to 60 feet, how will the over 100 feet heights be handled? Will the 160 feet area need an earth wall? (FEIS R-11-2)
How much soft /low grade soil must be excavated?
Where will all the fill come from? Can permits to mine and haul it be obtained in a timely manner?
How can you have over 3000 haul trucks a day without decreasing safety, particularly considering current accident rates on those roads? Considering most routes haven't been defined how can safety be adequately addressed? (FEIS R12-28)

The study boundary is much too small from both environmental and economic aspects and needs to be expanded. Normandy Park is being hurt more than any other city but was not evaluated in the FEIS. For example, Brown's seven years of house sale data was ignored but clearly shows a significant decline (ref. (c)).

What is the real air capacity increase if consider the weather during peak season?

What is the pollution impact from the aircraft if all their engines are running and realistic landing/take-off cycle times are used?

(10) Inaccurate answers in Response to Requests for Supplemental Review

For example, in the "Response to Requests for Supplemental Review" (ref. (dd)), it states on page 10 that "The over-statement of pollutant levels occurred by using worst case weather conditions..." yet the FEIS states that it did not. The FEIS R10-2, page R-112 explains that the reason the FEIS shows less pollution than previous studies is because the FEIS uses "actual historic meteorological conditions". The pollution is not overstated. If this was the same wrong weather data that the poor weather estimate came from used in delay calculations, i.e., the 10 summers but 11 winters (ref. (i)), the O_3 and NO_2 pollution is even more underestimated than the original question suggested. Combine this the ridiculously short 11 minute take-off and landing cycle time used in the calculations, there is even less credibility in the pollution numbers.

(11) Misinterpretation of Final Noise Decision; (Ref. (e))

The PSRC has misinterpreted the "Final Noise Decision on Noise Issues". At the December 1994 Expert Panel Public Testimony meeting (ref. (t)), the Arbitration Board went to great lengths to explain they were only addressing second runway mitigation and would take no comments on the Third runway. If they changed this position, then the public comment sessions were incomplete and need to be redone.

The Noise decision indicates that noise has definitely increased according to actual measurements, questions the validity of noise contour maps, and suggests that although it might be feasible to mitigate noise from the second runway, it's probably unrealistic to believe the Port would mitigate noise from a Third runway in a timely or meaningful manner.

(12) Invitation to Question Constitutionality of Government Agencies

See reference (ff) for some points related to this issue

(13) Steps after DEIS Confusing

After the DEIS comments were submitted to the FAA, comments sometimes went to the Port and sometimes went to the FAA depending on what part which document you were commenting on. With the added complication of adding the Third runway into the MTP plan, it would be a miracle if all the comments really got to the right agency each time. Also, some people are probably under the mistaken impression that what they submitted to the Expert Panel or the PSRC is included automatically in the EIS process.

(14) Inaccessibility of EIS's

The FEIS cost $350 and only one copy was available at the local branch library. It could not be loaned out because it was the only copy. Likewise, there is only one copy of the SEIS at the local library, and even that arrived late.

(15) Inaccessibility of Key references in SEIS

Key items such as the Miller Creek plan are not in the SEIS.

(16) Alleged Flight Path Changes without EIS

The Flight Path appeal by Akers regarding Manual changes flight path without the required EIS needs to be addressed in SEIS.

(17) SEIS Public Hearing Notice

The Port's "Forum" newsletter indicated the SEIS Public Hearing was tentative and to call a phone number to confirm. The number was not updated as of 7AM the day of the hearing to say that the hearing was scheduled. I assume the automated phone line was never updated with the hearing information. The Forum newsletter that confirmed that the hearing arrived in my mailbox AFTER the hearing had already started.

The Forum newsletter did NOT indicate that parking would be validated nor did the automated phone line message. It is very expensive to park at the airport so some people were unable to afford attending the meeting.

A copy of the SEIS still was not at the Des Moines library as of the hearing date.

SEPA and NEPA Regulations

Question AB 163 : Is the National Environmental Policy Act (NEPA) applicable to this SEIS?

Question AB 164 : If NEPA is applicable, please provide justification for the departures from NEPA. See Appendix B.

Question AB 165 : How do you justify non-compliance with the regulations or rationalize compliance with the SEPA regulations listed in the following table ? Please address each specific WAC paragraph cited.

Enclosed is a partial summary of SEPA regulatory issues. The majority of Table B1 covers items specifically addressed in comments to 1995 DEIS (references (c) and (s)). Some key items added to this table since June 1995 include:
(1) LDA technology
(2) GPS technology
(3) Final Noise Decision on Noise Issues
(4) Kludt litigation
(5) Flight Path Change without an EIS (Akers)
(6) Executive Order Appeal (Akers)
(7) PSRC process
(8) Port process

After reading the SEIS, even if the SEIS comments on the item such as technology, the answer appears inadequate or incomplete.

Table B1 Regulatory Compliance Issues Partial Summary

Issue	SEPA Regulation
FULLY address other REASONABLE alternative sites	WAC 197-11-070 (1) WAC 197-11-060 (4) c& d WAC 197-11-030 item g WAC 197-11-440 (5) b WAC 197-11-786
The "weighing and balancing" with respect to economics and the logistics of the additional off-site fill now required for Sea-Tac must be compared to the other Alternative sites.	WAC 197-11-448 (1) first sentence
Fully address Demand Management alternative	WAC 197-11-786
Address probable impact from 4th & 5th runways	WAC 197-11-060 (4) c, d
Address impact of "reserving for some future time" the implementation of this project	WAC 197-11-440 (5) viii
Add cost-benefit analysis. Considering cost estimate tripled over several months and will be the most expensive US runway, and has a limited capacity (too short for cargo planes in warm weather)	WAC 173-806-125 WAC 197-11-726 WAC 197-11-055 (6) WAC 197-11-600 (4) c)ii
Need to address LDA technology similar to that used in San Francisco without a Third Runway	WAC 197-11-070 (1) WAC 197-11-060 WAC 197-11-030 item g WAC 197-11-440 (5) b WAC 197-11-786

Table B1 Regulatory Compliance Issues Partial Summary

Issue	SEPA Regulation
Need to address technology combined with some form of demand management (Note (ref. (dd)) clearly states "unconstrained demand " is assumed in the 1996 FEIS)	WAC 197-11-060
Need to address LDA technology similar to that used in San Francisco with a third runway closer to the existing runway alleviating the need for over 24 million cubic yards of fill and acres of wetland construction	WAC 197-11-070 (1) WAC 197-11-060 WAC 197-11-030 item g WAC 197-11-440 (5) b WAC 197-11-786
Need to address GPS technology scheduled for FY 2001 implementation with a third runway closer to the existing runway alleviating the need for over 24 million cubic yards of fill and acres of wetland construction	WAC 197-11-070 (1) WAC 197-11-060 WAC 197-11-030 item g WAC 197-11-440 (5) b WAC 197-11-786
Need to address GPS technology scheduled for implementation FY 2001 without a Third Runway	WAC 197-11-070 (1) WAC 197-11-060 WAC 197-11-030 item g WAC 197-11-440 (5) b WAC 197-11-786

Table B1 Regulatory Compliance Issues Partial Summary

Issue	SEPA Regulation
Address Property devaluation of ALL significantly impacted locations - Burien, **Normandy Park, Des Moines**, SeaTac, **Tukwila** Significant litigation should be addressed such as Kludt and Akers Flight Path charges	WAC 197-11-600 (b) i, and (d), ii WAC 197-11-440
PSRC members received direction to vote "For the Third Runway" prior to public testimony/hearings	
Address the ACTUAL transportation plans for the about 1,000,000 haul loads of fill. Is it possible to be economically practical? Barges are NOT fully addressed in DEIS.	WAC 197-11-660 (2) WAC 191-11-440 (6) c, iv
Acquire missing critical data such as erosion, landslide & earthquake hazards, air toxins, ground water movement/quality, etc.	WAC 197-11-080 (1) WAC 197-11-660 WAC 197-11-444 (c),iv WAC 197-11-600 (b), ii and (d), ii

Table B1 Regulatory Compliance Issues Partial Summary

Issue	SEPA Regulation
Investigate noise projections, Noise contour maps not substantiated by noise measurements.	WAC 197-11-600 (b) ii, (d) ii
Address impact on existing "brown-out" problems related to electric utilities	WAC 197-11-600 (b), ii and (d), ii
Address pollution and safety impacts of aircraft crashes	WAC 197-11-794 WAC 197-11-600 (b), ii and (d), ii
Address air toxin levels in Chapter V, item 4. Data suggests it already exceeds annual safety levels and will not be mitigated	WAC 197-11-080 (1)
Revise misleading calculations such as carbon monoxide levels	WAC 197-11-080 (1)
Add SPECIFIC, FEASIBLE mitigation measures	WAC 173-806-100 (c) WAC 197-11-660
Proposed mitigation measures UNREASONABLE (feasible ones could double construction schedule and some aren't feasible)	WAC 197-11-660 (1) f ii
Fully address mitigation using the "appropriate technology". No mention of new technology like infrared hangers for deicing[1] and concrete barriers for running off runways[2].	WAC 197-11-768

Table B1 Regulatory Compliance Issues Partial Summary

Issue	SEPA Regulation
Provide mitigation schedule and bonds considering the decades old mitigation agreements still have not been fulfilled (pollution and noise related)	See King County Rules in addition to SEPA rules
FULLY address monitoring of environmental impacts	WAC 197-11-660
Publicly retract published misleading information - see Forum	WAC 197-806-130
Revise conclusions not supported by data for which the data is readily available from court house records, government documents, and libraries.	WAC 197-11-080 (1)
Revise ES Summary to reflect the data in the report such as Chapter V disturbance-sensitive species perishing (see Biological Appendix K)	WAC 197-11-440 (6)
Address other related documents such as the Arbitration Panel data and reports including the Final Noise Decision on Noise Issues (ref. (e)). Do not quote things out of context.	WAC 197-11-055 (6) WAC 197-11-402 (8)
Identify all those impacts which will not be fully evaluated further because regulations governing "on-site" construction are significantly different. Evaluate, conduct tests, and assess these before EIS approval. Example: Excavation and repositioning of contaminated fill that then can contaminate creeks leading into Puget Sound.	WAC 197-11-660 (2)b
Determine if the term "on-site" is appropriately used for sites that are geographically separated by public roads. Identify differences in policies and regulations for on-site compared to off-site.	WAC 197-11-660

Table B1 Regulatory Compliance Issues Partial Summary

Issue	SEPA Regulation
Determine the correct Lead and Cooperating agency relationships. SEPA requires DOE to be Lead agency when over 1,000,000 gallons of fuel are involved. Not all agencies provided adequate review of DEIS because they each thought another agency had prime responsibility for that section and they wanted to avoid duplication.	WAC 197-11-938 (10) Note, WAC 197-11-942 does not apply to items listed under 197-11-938.
Consider a NEPA. Current EIS contains too many fallacies to use it to justify the Third Runway.	WAC 197-11-610
Include a single map identifying all the environmental sensitive area issues	WAC 197-11-908
Fully address pollution from aircraft crashes and major fuel spills	WAC 197-11-794 (2)
More fully address aircraft parts falling onto school grounds now that even more schools are in the "fall-out" zone	WAC 197-11-794 (2)
EITHER DENY THE PROPOSAL or require a SEIS to identify feasible, technically adequate, and economically practicable mitigation measures. Present DEIS/FEIS mitigation measures are TECHNICALLY INADEQUATE such as the water pollution control methods, not all Significant Unavoidable Impacts have been addressed such as the homeless endangered species and (3) inadequate information regarding fill source locations which will certainly create a "Significant Adverse Impact". Significant Adverse Impacts needs to address loss of eligibility for low income housing The SEIS needs to address Alternative Sites, technology and assess current traffic at other local airports such as Bellingham, WA Traceability to questions inadequate and answers unsubstantive	WAC 197-11-600 (4)d ii WAC 197-11-660 WAC 197-11-330 WAC 173-806-100 (c) WAC 11-440 (6) c iv See Alternative Site rules first Table B1 entry WAC 197-11-550

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Table B1 Regulatory Compliance Issues Partial Summary

Issue	SEPA Regulation
If FAA Record of Decision intends to increase capacity numbers above the "New Port" estimate, issue another SEIS to recalculate pollution and increase on-the-ground taxi time, etc.	
If FAA Record of Decision intends to change the location of the runway so it is below the FEIS location (14 feet below proposed), instead issue another SEIS to recalculate pollution and increase on-the-ground taxi time, etc. . Curent SEIS does not appear to consider this.	
Suggest REASONABLE and feasible mitigation measures. Example: Can over 3000 trucks per day really avoid rush hour near businesses and an airport that are open 24 hours a day ? If it is hauled in at the same rate as the current south airport construction rate which is creating havoc, it will take about 50 years.	WAC 191-11-440 (6) b,i and (6) b ,iv WAC 197-11-660
Address "Economic Practicability" of mitigation measures. Note, some required mitigation for the 2nd runway completed in 1973 is still incomplete.	WAC 11-440 (6) c iv WAC 197-11-660 (2)

[1] Aviation Week, "FAA Tests Infrared Deicers", May 1,1995, pg. 38

[2] Aviation Week, 1995

Recommendations

1) Immediately discontinue efforts to approve a Third Runway at Sea-Tac because of the **exorbitant** economic and environmental costs. If this can't be done at this time, the Government Accounting Office should conduct an audit.

2) Identify and implement a **meaningful mitigation** plan for the existing Sea-Tac airport configuration recognizing the impact technology and a demand management plan will have on air traffic.

3) Aggressively pursue **realistic alternatives** as well as a combination of alternatives, i.e., rail and other airport sites combined with technology improvements at Sea-Tac International Airport

Appendix A

Dirt Petition Letter

Acronyms

References and Bibliography

Health Bibliography

C.A.S.E.
Citizens Against Sea-Tac Expansion

3 October 1996

font size reduced for incorporation into SESIS comments

To: Director of Public Works
City of Sea-Tac Public Works Dept.
17900 International Blvd.
Sea-Tac, WA 98188

Dear Mr. Bruce Rayburn,

Subject : Current and Planned Haul Truck Mitigation in Sea-Tac Airport Area

References :

(a) "Number of Dirt Trucks Will Increase, Third Runway", by V. Nordstrom, Highline News, 10 August 1996

(b) Puget Sound Air Pollution Control Agency, Notice of Violation, Registration No P371603874-75, Reg. I, Section 9.15 (a), 2001 S128 St., North Sea-Tac Park Project

(c) Engineer's Personal Assessment of the Sea-Tac Airport Master Plan Update Draft Environmental Impact Statement (DEIS) - Proposed Third Runway, The United States' Most Expensive, Limited Capacity Runway, incorporated into FEIS response appendix.

(d) Sea-Tac Airport Master Plan Update Final Environmental Impact Statement (FEIS), 1996

(g) City of Sea-Tac Public Works Permit PWD0115-96, Parcel 282304-9016, Issued 6/20/96, Expiration 12/17/96, Contractor Segale, Signed by Bruce Rayburn

Both the air pollution and traffic controls in the Sea-Tac airport safety project permit (ref. (g)) appear inadequate when driving on S 188th, SR 509 and SR 518. Considering the volume of fill for that permit is only about 2 % of that needed for the Master Plan project covered in the Final Environmental Impact Statement (reference (d)) much more mitigation is needed to minimize future hazards.

Recognizing the problems the current "insignificant" project has caused (see the enclosed petition), it is difficult to imagine the problems if the Third Runway is built in the short time scheduled by using thousands of haul truck trips per day.

This letter addresses measures we recommend be mandatory to MINIMIZE loss of life and property. Over 75,000,000,000 pounds[1] of fill requires more mitigation than routine projects !

[1] 24.6 million cubic yards per FEIS (ref. (d)) excludes the soft soil and contaminated soil that needs to be removed and replaced

AR 037000

Proposed Mandatory Permit Requirements

(1) Each haul truck should be required to participate in a "How am I driving?" program (e.g. 1-800-827-SAFE). These programs post a sign on the back of each truck. It lists in large letters a short truck identification number and a phone number to report traffic violations.
Rationale: Since hauling began for the referenced permit (ref. (g)) there has been a significant increase in citizens' complaints regarding haul trucks (ref. (a)). Both RCAA and CASE receive phone calls requesting whom to contact to complain. It has become a standard topic of discussion at meetings and typically includes the following allegations:

(a) running red lights at SR 518 and SR 509 interchange (going south)
(b) traveling outside the white lines
(c) excessive speed on SR 509 and SR 518
(d) inability to merge onto SR 509 due to fast moving trucks
(e) reduced visibility because trucks travel in a line of four (4) or five (5)
(f) fill flying onto cars behind the trucks
(g) huge clouds of dust distract drivers because it appears to be an explosion when it's actually just from dumping

Not all trucks are airport bound so by using an identifying number it can ensure the correct companies are contacted about alleged driving violations. Alleged traffic violations are in areas not visible by the uniformed officers required by permit PWD0115-96.

(2) Additional uniformed officer coverage is needed to patrol the areas identified under the Safe driving program as high risks. This patrol coverage should be a condition of the permit and paid by the haul truck contractor.
Rationale: Considering thousands of haul trucks will be coming from all over Puget Sound and converging on Sea-Tac daily, the high risk areas likely will extend well beyond the immediate airport area. The August 1996 forty-two (42) car pile-up on I-5 included at least four trucks. The newspaper and television coverage showed a double-haul truck jack knifed across I-5 near the beginning.

(3) Additional uniformed officer coverage is needed at the SR 509 and SR 518 interchange. This should be a condition of the permit and paid by the truck contractor.
Rationale: The Dept. of Transportation statistics indicate this is the most dangerous intersection in the area. This concern was raised in comments on the Draft Environmental Impact Statement (ref. (c)) but the Final Environmental Impact Statement response R-28 was *"increased truck traffic on any leg does not impose any increased traffic risk"*. There has already been at least one significant haul truck accident on 18 September 1996 at the intersection of SR 509 and SR 518. Also, the SR 509 and SR 518 interchange appears to be generating the most negative comments from residents (see item (1)).

(4) Haul truck operating hours need to be reduced
Permit PWD0115-96 rush hour limitations need to be extended at least to 8:30 AM. Additional limitations may be needed as a result of the traffic analysis requested in item (5).
Rationale: Permit PWD0115-96 has already significantly increased commute times and caused an increase in pollution due to slower traffic. This is particularly significant considering the carbon monoxide levels that already exceed approved levels. Note, the construction area posted speed limit is 10 miles per hour less than the standard speed limit, signs warn you to be prepared to stop (it takes the trucks so long to turn it requires the cars to stop), and one lane is closed to facilitate the trucks turning. This results in a traffic situation that was NOT included in the FEIS traffic analysis (ref. (d)).

(5) The number of trucks entering the Sea-Tac per hour needs to controlled to avoid creating any additional Loss F conditions and to minimize the impact on those intersections already at Loss F (see King County Road Adequacy Standards). Traffic analyses need to be redone using the reduced speed limits, full stops for traffic behind double haul trucks as they turn and to account for lane closures used to facilitate the turning of the double haul trucks. Because this project far exceeds any standard practice haul project, the entire haul job must be considered rather than each individual contractor's number of trucks.
Rationale: The intent of King County Road Adequacy Standards is to avoid additional Loss F locations. The traffic controls used for Permit PWD0115-96 (See rationale as item (4)) are <u>not</u> reflected in Final Environmental Impact

Statement. Even more extensive traffic controls will be needed for the Third runway project. It is much larger both in total number of trucks and number of trucks per day than PWD0115-96. It's extremely unlikely that the current construction schedule can be met if King County Road Adequacy Standards or the Clean Air Act is enforced.

(6) Either the loads need to be covered and/or reduced so that NO dirt is above the rail. Also moisture content prior to dumping needs to be controlled
Rationale: Current regulations are totally inadequate considering the pollution levels in the area and that the quantity of haul dirt that needs to be brought into the area for the Third Runway far exceeds standard practice. Even assuming the loads are covered, the moisture content of the fill needs to be closely controlled to avoid a repetition of this summer's exploding dust storms.
The Puget Sound Air Pollution Control Agency issued a Notice of Violation 29 July 1996 regarding fugitive dust at North Sea-Tac Park (ref. (b)). This is just north of the dumping under Permit PWD0115-96.

(6) Haul Contractor shall pay adequate share of road repairs
Rationale : Hauling trucks are a leading contributor to road damage. This project requires thousands of trips per day of haul trucks that will require road repairs. King County Road Adequacy Standards permit pro-rata payments but if it's not set up in advance the cities may need to sue to obtain the repair costs.

Your timely response to this request would be appreciated. Technical questions regarding this request may be directed to A. Brown of C.A.S.E.

Sincerely,

Debi DesMarais (signatures on original)
C.A.S.E. President
19900 4th Ave SW
Seattle, WA 98166
(206) 824-3120

J. Bartleymay
C.A.S.E Vice President

cc: ACC
Dept. of Transportation
Environmental Protection Agency
Federal Aviation Administration
King County Police
Port of Seattle
Puget Sound Air Pollution Control Agency

Enclosure : Petition

Haul Trucks Pollution and Traffic Controls Petition - To be Enclosed with CASE letter

Considering the **increased pollution and traffic control problems** created by Permit PWD0115-96, much more **meaningful and significant mitigation measures need to be imposed on future haul truck permits traveling in the Sea-Tac airport area.** The amount of fill Permit PWD0115-96 currently hauls to the south end of the Sea-Tac airport represents **only about 2 %** of the fill needed for the proposed Third Runway project.

signatures on file

Acronyms

ACC	Airport Communities Coalition
CASE	Citizens Against Sea-Tac Expansion
DEIS	Draft Environmental Impact Statement
DOE	Dept. of Ecology
FEIS	Final Environmental Impact Statement
EPA	Environmental Protection Agency
HOK	1996 Burien Study funded by WA
KC	King County
LDA	Localizer directional aid technology
GAO	Government Accounting Office
GPS	Global Positioning Satellite technology
NEPA	National Environmental Policy Act
NPIAS	National Plan for Integrated Airports System
PSAPCA	Puget Sound Air Pollution Control Agency
PSRC	Puget Sound Regional Council
Port	Port of Seattle
RCAA	Regional Commission on Airport Affairs
Sea-Tac	Seattle-Tacoma International Airport
SeaTac	SeaTac, city adjacent to Sea-Tac airport
SEIS	Supplemental Environmental Impact Statement
SEPA	State Environmental Protection Act
SIP	State Implementation Plan ... Air Quality
TAF	Terminal Air Forecast
WA	State of Washington

References and Bibliography

See also Health Bibliography that follows

(a) Supplement to the State Implementation Plan for Washington State, Plan for Attaining and Maintaining National Ambient Air Quality Standards for Ozone in Central Puget Sound, January 1993, Amendments June 1994

(b) Sea-Tac Airport Master Plan Update Draft Environmental Impact Statement (DEIS), 1995

(c) Engineer's Personal Assessment of the Sea-Tac Airport Master Plan Update Draft Environmental Impact Statement (DEIS) - Proposed Third Runway, The United States' Most Expensive, Limited Capacity Runway, incorporated into FEIS response appendix.

(d) Sea-Tac Airport Master Plan Update Final Environmental Impact Statement (FEIS), 1996

(e) "State of WA Puget Sound Regional Council **Final** Noise Decision on Noise Issues", dated 27 March 1996 (bolded by author to emphasize legal title)

(f) Comments on the Draft General Conformity for the Sea-Tac Airport Runway and Associated Development Projects, A. M. Brown dated April 30 1996

(g) Technical Report #8 prepared by P&D Aviation for Port of Seattle.

(h) Testimony at the Congressional Aviation Subcommittee Hearing by nationally known economist Dr. Lynn O. Michaelis, held March 18, 1996

(i) Testimony at the Congressional Aviation Subcommittee Hearing by air transportation expert, Dr. Stephen Hockaday, held March 18, 1996

(j) Study submitted to FAA by Envirometrics, Dr. Ruby, Smith Engineering & Management, Cutler & Stanfield, dated 6 June 1996

(k) Implementation of an LDA/DME Approach to Runway 16R in lieu of a Third Runway at Sea-Tac, prepared by G. Bogan & Associates, Inc. dated 26 June 1995 (presumably submitted as comment to Draft EIS)

(l) Letter To PSRC President Doug Sutherland, From Pork Patrol, Al Fumey, Chair, dated 12 June 1996 - in June 3-19,1996 PSRC correspondence package

(m) "City, State Forces Wrangle over Third Chicago Airport, Aviation Week & Space Technology, 8 April 1996

(n) GAO/RCED-95-35BR (Government Accounting Office)

(o) "Finally ! It's Here (Denver International Airport Opens), Newsweek, 6 March 1995

(p) "Denver International Airport - Economic aspects", Travel Weekly, 2 February 1995 v54, n9, p4

(q) "Montreal Airport never got quite off the ground" Times 15 April 1996 - in PSRC Correspondence package dated June 21-26,1996

(r) Comments regarding adding the part time dependent runway to the MTP. To D. Sutherland PSRC, From A. Brown, dated 15 June 1996 - in PSRC Correspondence package 3-19 June 1996. Special Note the cover letter enclosed a copy of 25 pages of comments dated 11 June, 1996. These comments were hand delivered to the PSRC with the CASE comments on June 11,1996 so the July 19,1996v date is incorrect with respect to the pages labeled 1/25 and so on.

(s) "Comments on Public Comment Meeting June 27,1996 - Topic : Proposed Addendum to the 1995 Metropolitan Transportation Plan (MTP) to include the Third Runway", To D. Sutherland & PSRC Executive Board, From A. Brown, dated 7 July 1996 - in PSRC Correspondence package July 10-11, 1996 (enclosure 3 in this Port Appeal letter of August 1996)

(t) Expert Noise Arbitration Panel Hearing December 1994

(u) FAA Hearing June 1995

(v) PSRC Executive Boarding Meeting and Public Testimony, June 1996

(w) Letter (Supplement to FEIS Comments, "Draft conformity analysis does not support your conclusion that the project conforms to the State Implementation Plan"), To D. Ossenkop of FAA , cc Hinkel of Port, From U.S. Environmental Protection Agency, dated 6 June 1996

(x) Letter To PSRC, From D. DesMarais, dated 8 July 1996 - in PSRC Correspondence package June 26 - July 9, 1996

(y) "Executive Board Order, dated April 25,1995", To PSRC, From Ravenna-Bryant Community Association, dated 8 May 1996 - in PSRC Correspondence package June 21-26, 1996

(z) Letter, To PSRC, From A. Brown, dated 10 April 1996 - in PSRC Correspondence package April 3-15, 1996

(aa) "Draft Amendment to MTP -- Third Sea-Tac Runway, June 10, 1996 Order", To PSRC, From North East District Council, dated 28 June 1996 - in PSRC correspondence package June 26 - July 9, 1996.

(bb) Letter, To D. Hinson of FAA, From R. Akers, dated 28 May 1996 - in PSRC correspondence package May 23-29, 1996.

(cc) ECO-088, To D. Ossenkop of FAA, From R. Parkin of U. S. EPA, dated 18 March 1996 - in PSRC correspondence package April 3-15, 1996.

(dd) Response to Requests for Supplemental Review, Addendum to the Flight Plan Project FEIS (1992) and Proposed Master Plan Update

Development Actions at Seattle-Tacoma International Airport Final EIS (1996), PSRC, 10 July 1996.

(ee) Letter, To PSRC, From City of Normandy Park, dated 9 April 1996 - PSRC correspondence package April 3-15,1996.

(ff) "PSRC's Résolution (A-93-03) and it's Impact on Related Legislation", To PSRC, From H. J. Frause, dated 1 April, 1996 - in PSRC correspondence package April 3-15,1996.

(gg) City of SeaTac Public Works Permit PWDC115-96, Parcel 282304-9016, Issued 6/20/96, Expiration 12/17/96, Contractor Segale, Signed by Bruce Rayburn

(hh) "Number of Dirt Trucks Will Increase, Third Runway", by V. Nordstrom, Highline News, 10 August 1996

(ii) "Study : Bigger airport means more poor kids", Highline News, 7 August 1996, page A7

(jj) "Three Killed, 2 Hurt in SeaTac Wreck", Highline News, 7 August 1996. page A1

(kk) "Airlines Draw Battle lines o n User fee", Seattle Times, 19 June 1996, page D1

(ll) "FAA Plans to Publish Draft Addendum to 1976 Agency Noise Policy by September", Airport Noise Weekly, Volume 8, Number 11, dated 10 June 1996, page 81-82.

(mm) "Briefing Book", Environmental Conservation Division, Northwest Fisheries Science Center, National Marine Fisheries Service, NOAA, January 1994 (entire book but special attention to page 24)

(nn) "Programs and Accomplishments", Utilization Research Division, Northwest Fisheries Science Center, National Marine Fisheries Service, Seattle, WA, May 1995.

(oo) "Our Living Oceans, Report on the Status of U.S. Living Marine Resources", Unites States Dept. of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, 1995

(pp) "Transfer of Land for Runway Underway", Airport Noise Report, Volume 8, Number 12, 8 July 1996, page 94.

(qq) "Dramatic Drop in our infant mortality rate", Post-Intelligencer, 2 August 1996, pages C1, C4

(rr) "ATA Questions Validity of Airport Construction Needs Study; Says Adequate Funds Exist for Necessary Airport Projects", ATA News, Air Transport Authority of America, 20 March 1996

(ss) "Rockwell has won back the Global Positioning System (GPS) satellite contract", The Composites & Adhesives Newsletter, July-September 1996, page 3.

(tt) "Notice of Decision by the Port of Seattle", Public Notices, Seattle Times, 8 August 1996

(uu) "Air Pollution, Council's report based on Epidemiological study", by R. Kassel, National Resources Department Council Urban Environmental Program Sr. Attorney, Post-Intelligencer, 16 June 1996, page E3.

(vv) "Flying Off-Course: Environmental Impact of America's Airports", National Resource Defense Council, October 1996 need to reference

(ww) "Waste Clean Up, Safe and Sound?", Highline News, 23 November 1996, pages A1, A7 (additional information supplied by a participant)

(xx) "Third Runway Battle, The Big Dirt Haul", Highline News, 16 November 16,1996, pages A1, A2 (Shows map of potential haul routes referenced in FEIS (ref. d))

(yy) Engineering Principles of Ground Modifications, by Manfred R. Hausman, McGraw-Hill Publishing Company, New York

(zz) Soils in Construction, Third Edition, by W/. L. Schroeder Prentice Hall, New Jersey

(aaa) "Sea-Tac Third Runway to get its fill of dirt", Seattle Times 15 August 1996 pages A1, A19 (runway 14 feet below FEIS assumptions)

(bbb) Letter to FAA. D. Ossenkop, From Mary Riveland, Director WA DOE, dated 20 December 1996

(ccc) 49 U.S.C, 47101 et. seq. (formerly Airport and Airway Improvement Act, Section 509, paragraph (7) (A))

(ddd) Washington State Legislature Release, " South King County Lawmakers Question Approval of the Third Runway Plan", dated 20 December 1996.

(eee) "DOE Gives OK to Runway", Highline News, Page A7, December 21,1996

(fff) " Dust Emissions at North SeaTac Park", Puget Sound Air Pollution Control Agency Notice of Violation No. 35809, Registration No.

P371603874-75, Regulation I, Section 9.15 (a) : Emission of Fugitive Dust without use of best available control technology, 8 August 1996

(ggg) Letter regarding Snow Equipment Storage Shed Environmental Checklist and Determination of Nonsignificance, From Port of Seattle, Barbara Hinkle to Debi DesMarais, 25 July 1996

(hhh) " Asbestos Delays North SeaTac Work", Highline News, 13 July 1996, page A8

(iii) "Plane Crashes at SeaTac", Highline News, 24 August 1996, page A1

(jjj) "Girl Struck, dies in I-5 Jam Detour", Highline News, 4 September 1996, page A1

(kkk) "Infant Death Rates Still Higher Here", Highline News, 6 October 1996, page A3

(lll) FAA report "Impact of Boeing Field Interactions on the Benefits of the new proposed runway.." Feb. 1993

(mmm) "Draft Sea-Tac Mitigation Study", Burien - Airport Assistance and Mitigation Studies, 21 October 1996, Final ~~to be~~ released March 1997 ▷

(nnn) Appeal of the Adequacy of the FEIS for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport, Filed by City of Sea-Tac

(ooo) Appeal of the Adequacy of the FEIS for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport, Filed by Akers

(ppp) Appeal of the Adequacy of the FEIS for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport, Filed by Cities of Des Moines, Burien, Federal Way, Normandy Park and Tukwila, Highline School District 401, Airport Communities Coalition

(qqq) Lawsuit filed by Cutler & Stanfield , Filed by Cities of Des Moines, Burien, Federal Way, Normandy Park and Tukwila, Highline School District 401, Airport Communities Coalition

(rrr) Earth Pressures and Retaining Walls, Whitney Huntington, John Wiley & Sons, NY, 1957

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▷ Sea-Tac International Airport Impact Mitigation Study, Initial Assessment and Recommendations, February 1997

(ttt) "Environmental Assessment for Proposed Improvements to Runway 3-21, Albuquerue International Airport", prepared by Coffman Associates, Inc. June 1994

(uuu) Sea-Tac Noise Exposure Update , June 1982

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(www) World Wildlife Fund Newsletter, "Focus", March/April 1997, Volume 19, Number 2

(xxx) "A Comparison of FAA Integrated Noise Model Flight Profiles with Profiles Observed at Seattle-Tacoma Airport" by George W Flathers, December 1981, Office of Environment and Energy Project 1494A, Contract DTFA01-82-C10003, Mitre: Metrek Division

Note: This is only a partial list of references. Typically, the same information appears in multiple locations. All correspondence to the FAA, Port of Seattle, PSRC, Corp. of Engineers, Dept. of Ecology, Environmental Protection Agency, Expert Noise Panel, PSAPCA, and Dept. of Transportation on current airport operations as well as the Third runway are applicable.

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AR 037012

Appendix B: NEPA Regulatory Issues Summary

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

CITATION OF REGULATIONS WHICH APPLY TO VIOLATIONS AND POTENTIAL VIOLATIONS OF THE ACT IN THE DOCUMENTATION PROVIDED BY THE FAA/PORT OF SEATTLE AS CO-LEAD AGENCIES IN A NEPA/SEPA PROCESS FOR THE THIRD RUNWAY DEVELOPMENT MASTER PLAN UPDATE (FEIS) AND RELATED PROJECT SASA BASE (NEPA will be italicized)

ß1500.1 Purpose
Section 102(2) contains "action-forcing" provisions to make sure that federal agencies act according to the letter and spirit of the Act.

ß1500.2 Policy
(b) Environmental impact statements shall be concise, clear and to the point, and shall be supported by evidence that agencies have made the necessary environmental analysis. (underlining added)

Many of the statements in the EIS were supported by phone conversations. Others were not substantiated. Although documentation was requested by myself and many others who commented on the draft EIS, no additional technical or supporting data, that I could find, was supplied in the final EIS.

(e) Use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment.

ß1501.2(c) Study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources as provided by section 102(2)(E) of the Act.

In 1993, a resident of Centralia presented an area of 37 to 50,000 acres of available, largely vacant land in Tenino to then King County Executive Gary Locke and the PSRC for consideration as a new airport site and this site was never pursued, evaluated or explored as an alternative to Sea-Tac expansion. At that time, there were 300 homes on the land. The Port of Seattle has publicly stated that there is a need to pursue, site and develop another airport prior to or shortly after the year 2020. Viable alternatives have not been pursued or evaluated.

Flight Plan nor the FEIS identified reasonable alternatives to the proposal. Existing technology such as LDA used at San Francisco (700') in an airport layout with less runway separation than existing Sea-Tac (800') according to expert testimony can eliminate the need for an additional bad weather landing runway 2500' from the existing west runway (16R34L) (1700' from the existing

west runway 16L34R). Future technology GPS (2001) and GDSB can eliminate bad weather landing constraints at Sea-Tac and can completely alleviate the need for a third runway.

The Port of Moses Lake has 350 VFR days per year in comparison to Sea-Tac 44% bad weather delays. Moses Lake is approved for a Foreign Trade Zone whereby cargo from the Pacific Rim and elsewhere now utilizing Sea-Tac could be alternately destined alleviating the pressure on Sea-Tac.

Port of Moses Lake is equipped to handle maintenance of aircraft. WAC 173-60-050(d) provides that maintenance facilities be located away from populated centers whenever possible. Moses Lake has over 1,000,000 sq. ft. of hangar space available to handle maintenance where Sea-Tac would have to incur a great public expense to site, build, and quiet such a facility. The proposed SASA site is near neighborhoods, businesses and a mobile home park. An extended land bridge with a tunnel would have to be built to accommodate planes moving across 188th.

The NEPA (FAA)/SEPA (Port of Seattle) Final EIS for SASA contains a letter from the Department of Interior stating that no endangered species have been identified near the project (SASA) site. However, the letter also indicates that:

"Should a species become officially listed or proposed before completion of the project, the FAA will be required to reevaluate its responsibilities under the Act."

A Bald Eagle nest has been recently listed located at the northeast corner of Angle Lake, only a few city blocks away from the proposed SASA site. The FAA, according to the DOI, must now reevaluate the project and under NEPA, consider other alternatives.

Moses Lake, multiple airport use recommended by Flight Plan, technology, Tenino are all viable alternatives to the proposed action which have not thoroughly been evaluated or considered. The use of Moses Lake as a reliever airport for cargo and a maintenance base would eliminate the commitment of resources such as the loss of Des Moines Creek Basin wetlands and salmon bearing creek to name only one of many avoidable adverse environmental impacts.

ß1500.4 Reducing paperwork. Agencies shall reduce excessive paperwork by:
(a) Reducing the length of environmental impact statements (1502.2(c)), by means such as setting appropriate page limits

(b) Preparing analytic rather than encyclopedic environmental impact statements

Much of the content of the draft and final EIS consisted of repetitive narrative that might have appropriately been replaced with substantive data and credible scientific analysis.

ß1503.4(a) An agency preparing a final environmental impact statement shall assess and consider comments both individually and collectively, and shall respond by one or more of the means listed below, stating its response in the final statement. Possible responses are to:

(2) Develop and evaluate alternatives not previously given serious consideration by the agency

(3) Supplement, improve or modify its analysis

(4) Make factual corrections

(5) Explain why the comments do not warrant further agency response, citing the sources, authorities, or reasons which support the agency's position and, if appropriate, indicate those circumstances which would trigger agency reappraisal or further response.

The documents were confusing, maybe purposefully so, it was not clear if comments were adequately addressed and important information that was extremely difficult to find or know it was there was scattered throughout the massive document.

Considerable time and space was spent on detailed statements of purpose and need that were never substantiated. The entire purpose of the document and the project itself was based upon a bad weather delay assumption that was easily dispelled as faulty not only by consultants working for the ACC but also by the project co-lead agency, the FAA itself, reporting statistics of national delay with Sea-Tac in the nation's top ten of best on-time performers. The assumption of bad weather delay along with the premise of utilizing Sea-Tac Airport with billions of dollars worth of improvements including a third runway at the same capacity with or without the runway, with or without the delays which don't exist, should have logically dispelled the entire purpose of the runway in everyone's mind. This did not happen but should have happened.

Regarding the need for an addendum to the existing document, an SEIS or an entire new EIS, NEPA ß1502.25.(4)(c) states:

An agency shall revise the determinations made under paragraphs (a) and (b) of this section if substantial changes are made later in the proposed action, or if significant new circumstances or information arise which bear on the proposal or its impacts.

Although the PSRC rejected requests for a supplemental EIS, the FAA, under NEPA, is compelled to consider all information presented to them regarding conformity, environmental justice and any other "new" or "substantive" information that may have been provided during the comment and review period(s) warranting an SEIS.

ß1502.4(a) Proposals or parts of proposals which are related to each other closely enough to be, in effect a single course of action shall be evaluated in a single impact statement.

This regulation should be applicable to any joint project proposal from the FAA/Port of Seattle under NEPA such as the SASA base and the current removal of soils and localizer relocation. However, I consider that many projects that have been proposed by the Port itself under SEPA as either a final EIS or a DNS are also part of the overall development plans of the Port to renovate the airport, appearing to the public as part of the Master Plan and should have been analyzed in a single document, especially considering the potential for cumulative and multiple project impacts of the following:

1) The Hotel (1994 final EIS)
2) North SeaTac Park (20+ year old EIS where significant new information is available)
3) North SeaTac Park Detention/Retention Pond Project (1995 DNS)
4) Federal Detention Center (final EIS 1992?)
6) Enplane Drives/Asbestos Project (1995 DNS)
7) RSA (1995/96 DNS 16R)
8) CTI (1995 EIS)
9) South Access (1995/96 draft EIS WSDOT)
10) 28th/24th Arterial (1993 SeaTac City EIS)
11) Phase I/Phase II International Blvd. (1994? EIS (contains erroneous air quality data and conformity analysis which should be revised based upon Master Plan FEIS data)
12) North Fuel Rack (1996 DNS)
13) Northwest Fuel Tank Remediation (?)
14) Federal Express expansion (includes relocation of employee parking lot A & B to north of SR 518. Federal Express expansion was not included in the Master Plan, but the parking facility was. However, the parking facility was dropped from development plans due to the large acreage of wetlands located at the proposed site. If Federal Express expands now, what will be the new location of the employee parking in the future?)
15) Others

B1506.1(2)(c) While work on a required program environmental impact statement is in progress and the action is not covered by an existing program statement, agencies shall not undertake in the interim any major Federal action covered by the program which may significantly affect the quality of the human environment unless such action:

(1) Is justified independently of the program:

(2) Is itself accompanied by an adequate environmental impact statement; and

(3) Will not prejudice the ultimate decision on the program. Interim action prejudices the ultimate decision on the program when it tends to determine subsequent development or limit alternatives.

Since I view the many projects listed above as part of the Master Plan or closely enough related to the overall development program, I also view the projects that have begun under designations of nonsignificance and separate EIS documents as a violation of this chapter of NEPA. However, since they have been singled out by the lead agencies as independent of the overall development they have no cumulative impact analysis and the projects which

have a designation of nonsignificance, which might be significant if added to other past, present and future actions irregardless of significance, have not been analyzed for their adverse multiple consequences to the human/natural/built environment. Therefore, most responsible agencies and officials which have purview over significant impacts in one EIS are potentially unaware of the total and cumulative impacts of reality, not paperwork, that is occurring today at Sea-Tac Airport and environs.

ß1508.25 Scope (2) Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement. (3) Similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography. An agency may wish to analyze these actions in the same impact statement. It should do so when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions is to treat them in a single statement.

(b) Alternatives, which include: (1) No action alternative (2) Mitigation measures (not in the proposed action). (c) Impacts, which may be; (1) Direct; (2) indirect; (3) cumulative.

It is my contention that the SR509/South Access Federal Highway Administration and WSDOT co-lead agency proposal should include the 28th/24th arterial project, the enplane drive improvements and any other connecting roadwork planned for the general area, their impacts and commitments to mitigation. These three are in the same geographical area, will coincide in timing, are roadways which will interconnect; i.e., state route, local arterial and airport drives, together in a more efficient manner, but at the same time creating the potential to significantly add traffic loads, thereby, exacerbating potential NAAQS CO violations. The cumulative effects of these projects should be analyzed together, in fact, these roadworks, in my opinion, are well suited for just this reevaluation in the spirit and intent of this particular NEPA chapter. Maybe the Port of Seattle should be responsible for this cumulative analysis since the primary purpose of generating additional vehicle carrying capacity of these roads is to accommodate airport related future automobile and cargo traffic increases. Whoever might be responsible is irrelevant, it needs to be done and according to NEPA, it should be done before approval of the two major federal actions. Once the reevaluation is complete, and should this area remain in nonattainment (maintenance) this project must then meet conformity requirements to be elligible for federal funding, approval and support, i.e., ISTEA, other federal agency funds.

ß1505.2 ROD(c) State whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not. A monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation.
ß1505.3 Implementation: Agencies may provide for monitoring to assure that their decisions are carried out and should do so in important cases. Mitigation

Table B1 Regulatory Compliance Issues Partial Summary

Issue	SEPA Regulation
Need to address technology combined with some form of demand management (Note (ref. (dd)) clearly states "unconstrained demand " is assumed in the 1996 FEIS)	WAC 197-11-060
Need to address LDA technology similar to that used in San Francisco with a third runway closer to the existing runway alleviating the need for over 24 million cubic yards of fill and acres of wetland construction	WAC 197-11-070 (1) WAC 197-11-060 WAC 197-11-030 item g WAC 197-11-440 (5) b WAC 197-11-786
Need to address GPS technology scheduled for FY 2001 implementation with a third runway closer to the existing runway alleviating the need for over 24 million cubic yards of fill and acres of wetland construction	WAC 197-11-070 (1) WAC 197-11-060 WAC 197-11-030 item g WAC 197-11-440 (5) b WAC 197-11-786
Need to address GPS technology scheduled for implementation FY 2001 without a Third Runway	WAC 197-11-070 (1) WAC 197-11-060 WAC 197-11-030 item g WAC 197-11-440 (5) b WAC 197-11-786

Table B1 Regulatory Compliance Issues Partial Summary

Issue	SEPA Regulation
Address Property devaluation of ALL significantly impacted locations - Burien, Normandy Park, Des Moines, SeaTac, Tukwila Significant litigation should be addressed such as Kludt and Akers Flight Path charges	WAC 197-11-600 (b) i, and (d), ii WAC 197-11-440
PSRC members received direction to vote "For the Third Runway" prior to public testimony/hearings	
Address the ACTUAL transportation plans for the about 1,000,000 haul loads of fill. Is it possible to be economically practical? Barges are NOT fully addressed in DEIS.	WAC 197-11-660 (2) WAC 191-11-440 (6) c, iv
Acquire missing critical data such as erosion, landslide & earthquake hazards, air toxins, ground water movement/quality, etc.	WAC 197-11-080 (1) WAC 197-11-660 WAC 197-11-444 (c),iv WAC 197-11-600 (b), ii and (d), ii

Table B1 Regulatory Compliance Issues Partial Summary

Issue	SEPA Regulation
Investigate noise projections, Noise contour maps not substantiated by noise measurements.	WAC 197-11-600 (b) ii, (d) ii
Address impact on existing "brown-out" problems related to electric utilities	WAC 197-11-600 (b), ii and (d), ii
Address pollution and safety impacts of aircraft crashes	WAC 197-11-794 WAC 197-11-600 (b), ii and (d), ii
Address air toxin levels in Chapter V, item 4. Data suggests it already exceeds annual safety levels and will not be mitigated	WAC 197-11-080 (1)
Revise misleading calculations such as carbon monoxide levels	WAC 197-11-080 (1)
Add SPECIFIC, FEASIBLE mitigation measures	WAC 173-806-100 (c) WAC 197-11-660
Proposed mitigation measures UNREASONABLE (feasible ones could double construction schedule and some aren't feasible)	WAC 197-11-660 (1) f ii
Fully address mitigation using the "appropriate technology". No mention of new technology like infrared hangers for deicing[1] and concrete barriers for running off runways[2].	WAC 197-11-768

Table B1 Regulatory Compliance Issues Partial Summary

Issue	SEPA Regulation
Provide mitigation schedule and bonds considering the decades old mitigation agreements still have not been fulfilled (pollution and noise related)	See King County Rules in addition to SEPA rules
FULLY address monitoring of environmental impacts	WAC 197-11-660
Publicly retract published misleading information - see Forum	WAC 197-806-130
Revise conclusions not supported by data for which the data is readily available from court house records, government documents, and libraries.	WAC 197-11-080 (1)
Revise ES Summary to reflect the data in the report such as Chapter V disturbance-sensitive species perishing (see Biological Appendix K)	WAC 197-11-440 (6)
Address other related documents such as the Arbitration Panel data and reports including the Final Noise Decision on Noise Issues (ref. (e)). Do not quote things out of context.	WAC 197-11-055 (6) WAC 197-11-402 (8)
Identify all those impacts which will not be fully evaluated further because regulations governing "on-site" construction are significantly different. Evaluate, conduct tests, and assess these before EIS approval. Example: Excavation and repositioning of contaminated fill that then can contaminate creeks leading into Puget Sound.	WAC 197-11-660 (2)b
Determine if the term "on-site" is appropriately used for sites that are geographically separated by public roads. Identify differences in policies and regulations for on-site compared to off-site.	WAC 197-11-660

Table B1 Regulatory Compliance Issues Partial Summary

Issue	SEPA Regulation
Determine the correct Lead and Cooperating agency relationships. SEPA requires DOE to be Lead agency when over 1,000,000 gallons of fuel are involved. Not all agencies provided adequate review of DEIS because they each thought another agency had prime responsibility for that section and they wanted to avoid duplication.	WAC 197-11-938 (10) Note, WAC 197-11-942 does not apply to items listed under 197-11-938.
Consider a NEPA. Current EIS contains too many fallacies to use it to justify the Third Runway.	WAC 197-11-610
Include a single map identifying all the environmental sensitive area issues	WAC 197-11-908
Fully address pollution from aircraft crashes and major fuel spills	WAC 197-11-794 (2)
More fully address aircraft parts falling onto school grounds now that even more schools are in the "fall-out" zone	WAC 197-11-794 (2)
EITHER DENY THE PROPOSAL or require a SEIS to identify feasible, technically adequate, and economically practicable mitigation measures. Present DEIS/FEIS mitigation measures are TECHNICALLY INADEQUATE such as the water pollution control methods, not all Significant Unavoidable Impacts have been addressed such as the homeless endangered species and (3) inadequate information regarding fill source locations which will certainly create a "Significant Adverse Impact". Significant Adverse Impacts needs to address loss of eligibility for low income housing The SEIS needs to address Alternative Sites, technology and assess current traffic at other local airports such as Bellingham, WA Traceability to questions inadequate and answers unsubstantive	WAC 197-11-600 (4)d ii WAC 197-11-660 WAC 197-11-330 WAC 173-806-100 (c) WAC 11-440 (6) c iv See Alternative Site rules first Table B1 entry WAC 197-11-550

Table B1 Regulatory Compliance Issues Partial Summary

Issue	SEPA Regulation
If FAA Record of Decision intends to increase capacity numbers above the "New Port" estimate, issue another SEIS to recalculate pollution and increase on-the-ground taxi time, etc.	
If FAA Record of Decision intends to change the location of the runway so it is below the FEIS location (14 feet below proposed), instead issue another SEIS to recalculate pollution and increase on-the-ground taxi time, etc. . Curent SEIS does not appear to consider this.	
Suggest REASONABLE and feasible mitigation measures. Example: Can over 3000 trucks per day really avoid rush hour near businesses and an airport that are open 24 hours a day ? If it is hauled in at the same rate as the current south airport construction rate which is creating havoc, it will take about **50 years.**	WAC 191-11-440 (6) b,i and (6) b ,iv WAC 197-11-660
Address "Economic Practicability" of mitigation measures. Note, some required mitigation for the 2nd runway completed in 1973 is still incomplete.	WAC 11-440 (6) c iv WAC 197-11-660 (2)

[1] Aviation Week, "FAA Tests Infrared Deicers", May 1,1995, pg. 38

[2] Aviation Week, 1995

Recommendations

1) Immediately discontinue efforts to approve a Third Runway at Sea-Tac because of the **exorbitant** economic and environmental costs. If this can't be done at this time, the Government Accounting Office should conduct an audit.

2) Identify and implement a **meaningful mitigation** plan for the existing Sea-Tac airport configuration recognizing the impact technology and a demand management plan will have on air traffic.

3) Aggressively pursue **realistic alternatives** as well as a combination of alternatives, i.e., rail and other airport sites combined with technology improvements at Sea-Tac International Airport

Appendix A

Dirt Petition Letter

Acronyms

References and Bibliography

Health Bibliography

C.A.S.E.

Citizens Against Sea-Tac Expansion

3 October 1996

font size reduced for incorporation into SESIS comments

To: Director of Public Works
City of Sea-Tac Public Works Dept.
17900 International Blvd.
Sea-Tac, WA 98188

Dear Mr. Bruce Rayburn,

Subject : Current and Planned Haul Truck Mitigation in Sea-Tac Airport Area

References :

(a) "Number of Dirt Trucks Will Increase, Third Runway", by V. Nordstrom, Highline News, 10 August 1996

(b) Puget Sound Air Pollution Control Agency, Notice of Violation, Registration No P371603874-75, Reg. I, Section 9.15 (a), 2001 S128 St., North Sea-Tac Park Project

(c) Engineer's Personal Assessment of the Sea-Tac Airport Master Plan Update Draft Environmental Impact Statement (DEIS) - Proposed Third Runway, The United States' Most Expensive, Limited Capacity Runway, incorporated into FEIS response appendix.

(d) Sea-Tac Airport Master Plan Update Final Environmental Impact Statement (FEIS), 1996

(g) City of Sea-Tac Public Works Permit PWD0115-96, Parcel 282304-9016, Issued 6/20/96, Expiration 12/17/96, Contractor Segale, Signed by Bruce Rayburn

Both the air pollution and traffic controls in the Sea-Tac airport safety project permit (ref. (g)) appear inadequate when driving on S 188th, SR 509 and SR 518. Considering the volume of fill for that permit is **only about 2 %** of that needed for the Master Plan project covered in the Final Environmental Impact Statement (reference (d)) much more mitigation is needed to minimize future hazards.

Recognizing the problems the current "insignificant" project has caused (see the enclosed petition), it is difficult to imagine the problems if the Third Runway is built in the short time scheduled by using thousands of haul truck trips per day.

This letter addresses measures we recommend be **mandatory to MINIMIZE loss of life and property. Over 75,000,000,000 pounds[1] of fill requires more mitigation than routine projects !**

[1] 24.6 million cubic yards per FEIS (ref. (d)) excludes the soft soil and contaminated soil that needs to be removed and replaced

Proposed Mandatory Permit Requirements

(1) Each haul truck should be required to participate in a "How am I driving?" program (e.g. 1-800-827-SAFE). These programs post a sign on the back of each truck. It lists in large letters a short truck identification number and a phone number to report traffic violations.
Rationale: Since hauling began for the referenced permit (ref. (g)) there has been a significant increase in citizens' complaints regarding haul trucks (ref. (a)). Both RCAA and CASE receive phone calls requesting whom to contact to complain. It has become a standard topic of discussion at meetings and typically includes the following allegations:

(a) running red lights at SR 518 and SR 509 interchange (going south)
(b) traveling outside the white lines
(c) excessive speed on SR 509 and SR 518
(d) inability to merge onto SR 509 due to fast moving trucks
(e) reduced visibility because trucks travel in a line of four (4) or five (5)
(f) fill flying onto cars behind the trucks
(g) huge clouds of dust distract drivers because it appears to be an explosion when it's actually just from dumping

Not all trucks are airport bound so by using an identifying number it can ensure the correct companies are contacted about alleged driving violations. Alleged traffic violations are in areas not visible by the uniformed officers required by permit PWD0115-96.

(2) Additional uniformed officer coverage is needed to patrol the areas identified under the Safe driving program as high risks. This patrol coverage should be a condition of the permit and paid by the haul truck contractor.
Rationale: Considering thousands of haul trucks will be coming from all over Puget Sound and converging on Sea-Tac daily, the high risk areas likely will extend well beyond the immediate airport area. The August 1996 forty-two (42) car pile-up on I-5 included at least four trucks. The newspaper and television coverage showed a double-haul truck jack knifed across I-5 near the beginning.

(3) Additional uniformed officer coverage is needed at the SR 509 and SR 518 interchange. This should be a condition of the permit and paid by the truck contractor.
Rationale: The Dept. of Transportation statistics indicate this is the most dangerous intersection in the area. This concern was raised in comments on the Draft Environmental Impact Statement (ref. (c)) but the Final Environmental Impact Statement response R-28 was *"increased truck traffic on any leg does not impose any increased traffic risk"*. There has already been at least one significant haul truck accident on 18 September 1996 at the intersection of SR 509 and SR 518. Also, the SR 509 and SR 518 interchange appears to be generating the most negative comments from residents (see item (1)).

(4) Haul truck operating hours need to be reduced
Permit PWD0115-96 rush hour limitations need to be extended at least to 8:30 AM. Additional limitations may be needed as a result of the traffic analysis requested in item (5).
Rationale: Permit PWD0115-96 has already significantly increased commute times and caused an increase in pollution due to slower traffic. This is particularly significant considering the carbon monoxide levels that already exceed approved levels. Note, the construction area posted speed limit is 10 miles per hour less than the standard speed limit, signs warn you to be prepared to stop (it takes the trucks so long to turn it requires the cars to stop), and one lane is closed to facilitate the trucks turning. This results in a traffic situation that was NOT included in the FEIS traffic analysis (ref. (d)).

(5) The number of trucks entering the Sea-Tac per hour needs to controlled to avoid creating any additional Loss F conditions and to minimize the impact on those intersections already at Loss F (see King County Road Adequacy Standards). Traffic analyses need to be redone using the reduced speed limits, full stops for traffic behind double haul trucks as they turn and to account for lane closures used to facilitate the turning of the double haul trucks. Because this project far exceeds any standard practice haul project, the entire haul job must be considered rather than each individual contractor's number of trucks.
Rationale: The intent of King County Road Adequacy Standards is to avoid additional Loss F locations. The traffic controls used for Permit PWD0115-96 (See rationale as item (4)) are <u>not</u> reflected in Final Environmental Impact

Statement. Even more extensive traffic controls will be needed for the Third runway project. It is much larger both in total number of trucks and number of trucks per day than PWD0115-96. It's extremely unlikely that the current construction schedule can be met if King County Road Adequacy Standards or the Clean Air Act is enforced.

(6) Either the loads need to be covered and/or reduced so that NO dirt is above the rail. Also moisture content prior to dumping needs to be controlled
Rationale: Current regulations are totally inadequate considering the pollution levels in the area and that the quantity of haul dirt that needs to be brought into the area for the Third Runway far exceeds standard practice. Even assuming the loads are covered, the moisture content of the fill needs to be closely controlled to avoid a repetition of this summer's exploding dust storms.
The Puget Sound Air Pollution Control Agency issued a Notice of Violation 29 July 1996 regarding fugitive dust at North Sea-Tac Park (ref. (b)). This is just north of the dumping under Permit PWD0115-96.

(6) Haul Contractor shall pay adequate share of road repairs
Rationale : Hauling trucks are a leading contributor to road damage. This project requires thousands of trips per day of haul trucks that will require road repairs. King County Road Adequacy Standards permit pro-rata payments but if it's not set up in advance the cities may need to sue to obtain the repair costs.

Your timely response to this request would be appreciated. Technical questions regarding this request may be directed to A. Brown of C.A.S.E.

Sincerely,

Debi DesMarais (signatures on original)
C.A.S.E. President
19900 4th Ave SW
Seattle, WA 98166
(206) 824-3120

J. Bartleymay
C.A.S.E Vice President

cc: ACC
Dept. of Transportation
Environmental Protection Agency
Federal Aviation Administration
King County Police
Port of Seattle
Puget Sound Air Pollution Control Agency

Enclosure : Petition

Haul Trucks Pollution and Traffic Controls Petition - To be Enclosed with CASE letter

Considering the **increased pollution and traffic control problems** created by Permit PWD0115-96, much more **meaningful and significant mitigation measures need to be imposed on future haul truck permits traveling in the Sea-Tac airport area.** The amount of fill Permit PWD0115-96 currently hauls to the south end of the Sea-Tac airport represents **only about 2 %** of the fill needed for the proposed Third Runway project.

signatures on file

Acronyms

ACC	Airport Communities Coalition
CASE	Citizens Against Sea-Tac Expansion
DEIS	Draft Environmental Impact Statement
DOE	Dept. of Ecology
FEIS	Final Environmental Impact Statement
EPA	Environmental Protection Agency
HOK	1996 Burien Study funded by WA
KC	King County
LDA	Localizer directional aid technology
GAO	Government Accounting Office
GPS	Global Positioning Satellite technology
NEPA	National Environmental Policy Act
NPIAS	National Plan for Integrated Airports System
PSAPCA	Puget Sound Air Pollution Control Agency
PSRC	Puget Sound Regional Council
Port	Port of Seattle
RCAA	Regional Commission on Airport Affairs
Sea-Tac	Seattle-Tacoma International Airport
SeaTac	SeaTac, city adjacent to Sea-Tac airport
SEIS	Supplemental Environmental Impact Statement
SEPA	State Environmental Protection Act
SIP	State Implementation Plan ... Air Quality
TAF	Terminal Air Forecast
WA	State of Washington

References and Bibliography
See also Health Bibliography that follows

(a) Supplement to the State Implementation Plan for Washington State, Plan for Attaining and Maintaining National Ambient Air Quality Standards for Ozone in Central Puget Sound, January 1993, Amendments June 1994

(b) Sea-Tac Airport Master Plan Update Draft Environmental Impact Statement (DEIS), 1995

(c) Engineer's Personal Assessment of the Sea-Tac Airport Master Plan Update Draft Environmental Impact Statement (DEIS) - Proposed Third Runway, The United States' Most Expensive, Limited Capacity Runway, incorporated into FEIS response appendix.

(d) Sea-Tac Airport Master Plan Update Final Environmental Impact Statement (FEIS), 1996

(e) "State of WA Puget Sound Regional Council **Final** Noise Decision on Noise Issues", dated 27 March 1996 (bolded by author to emphasize legal title)

(f) Comments on the Draft General Conformity for the Sea-Tac Airport Runway and Associated Development Projects, A. M. Brown dated April 30 1996

(g) Technical Report #8 prepared by P&D Aviation for Port of Seattle.

(h) Testimony at the Congressional Aviation Subcommittee Hearing by nationally known economist Dr. Lynn O. Michaelis, held March 18, 1996

(i) Testimony at the Congressional Aviation Subcommittee Hearing by air transportation expert, Dr. Stephen Hockaday, held March 18, 1996

(j) Study submitted to FAA by Envirometrics, Dr. Ruby, Smith Engineering & Management, Cutler & Stanfield, dated 6 June 1996

(k) Implementation of an LDA/DME Approach to Runway 16R in lieu of a Third Runway at Sea-Tac, prepared by G. Bogan & Associates, Inc. dated 26 June 1995 (presumably submitted as comment to Draft EIS)

(l) Letter To PSRC President Doug Sutherland, From Pork Patrol, Al Furney, Chair, dated 12 June 1996 - in June 3-19,1996 PSRC correspondence package

(m) "City, State Forces Wrangle over Third Chicago Airport, Aviation Week & Space Technology, 8 April 1996

(n) GAO/RCED-95-35BR (Government Accounting Office)

(o) "Finally ! It's Here (Denver International Airport Opens), Newsweek, 6 March 1995

(p) "Denver International Airport - Economic aspects", Travel Weekly, 2 February 1995 v54, n9, p4

(q) "Montreal Airport never got quite off the ground" Times 15 April 1996 - in PSRC Correspondence package dated June 21-26,1996

(r) Comments regarding adding the part time dependent runway to the MTP. To D. Sutherland PSRC, From A. Brown, dated 15 June 1996 - in PSRC Correspondence package 3-19 June 1996. Special Note the cover letter enclosed a copy of 25 pages of comments dated 11 June, 1996. These comments were hand delivered to the PSRC with the CASE comments on June 11,1996 so the July 19,1996v date is incorrect with respect to the pages labeled 1/25 and so on.

(s) "Comments on Public Comment Meeting June 27,1996 - Topic : Proposed Addendum to the 1995 Metropolitan Transportation Plan (MTP) to include the Third Runway", To D. Sutherland & PSRC Executive Board, From A. Brown, dated 7 July 1996 - in PSRC Correspondence package July 10-11, 1996 (enclosure 3 in this Port Appeal letter of August 1996)

(t) Expert Noise Arbitration Panel Hearing December 1994

(u) FAA Hearing June 1995

(v) PSRC Executive Boarding Meeting and Public Testimony, June 1996

(w) Letter (Supplement to FEIS Comments, "Draft conformity analysis does not support your conclusion that the project conforms to the State Implementation Plan"), To D. Ossenkop of FAA , cc Hinkel of Port, From U.S. Environmental Protection Agency, dated 6 June 1996

(x) Letter To PSRC, From D. DesMarais, dated 8 July 1996 - in PSRC Correspondence package June 26 - July 9, 1996

(y) "Executive Board Order, dated April 25,1995", To PSRC, From Ravenna-Bryant Community Association, dated 8 May 1996 - in PSRC Correspondence package June 21-26, 1996

(z) Letter, To PSRC, From A. Brown, dated 10 April 1996 - in PSRC Correspondence package April 3-15, 1996

(aa) "Draft Amendment to MTP -- Third Sea-Tac Runway, June 10, 1996 Order", To PSRC, From North East District Council, dated 28 June 1996 - in PSRC correspondence package June 26 - July 9, 1996.

(bb) Letter, To D. Hinson of FAA, From R. Akers, dated 28 May 1996 - in PSRC correspondence package May 23-29, 1996.

(cc) ECO-088, To D. Ossenkop of FAA, From R. Parkin of U. S. EPA, dated 18 March 1996 - in PSRC correspondence package April 3-15, 1996.

(dd) Response to Requests for Supplemental Review, Addendum to the Flight Plan Project FEIS (1992) and Proposed Master Plan Update

Development Actions at Seattle-Tacoma International Airport Final EIS (1996), PSRC, 10 July 1996.

(ee) Letter, To PSRC, From City of Normandy Park, dated 9 April 1996 - PSRC correspondence package April 3-15,1996.

(ff) "PSRC's Résolution (A-93-03) and it's Impact on Related Legislation", To PSRC, From H. J. Frause, dated 1 April, 1996 - in PSRC correspondence package April 3-15,1996.

(gg) City of SeaTac Public Works Permit PWD0115-96, Parcel 282304-9016, Issued 6/20/96, Expiration 12/17/96, Contractor Segale, Signed by Bruce Rayburn

(hh) "Number of Dirt Trucks Will Increase, Third Runway", by V. Nordstrom, Highline News, 10 August 1996

(ii) "Study : Bigger airport means more poor kids", Highline News, 7 August 1996, page A7

(jj) "Three Killed, 2 Hurt in SeaTac Wreck", Highline News, 7 August 1996. page A1

(kk) "Airlines Draw Battle lines o n User fee", Seattle Times, 19 June 1996, page D1

(ll) "FAA Plans to Publish Draft Addendum to 1976 Agency Noise Policy by September", Airport Noise Weekly, Volume 8, Number 11, dated 10 June 1996, page 81-82.

(mm) "Briefing Book", Environmental Conservation Division, Northwest Fisheries Science Center, National Marine Fisheries Service, NOAA, January 1994 (entire book but special attention to page 24)

(nn) "Programs and Accomplishments", Utilization Research Division, Northwest Fisheries Science Center, National Marine Fisheries Service, Seattle, WA, May 1995.

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(pp) "Transfer of Land for Runway Underway", Airport Noise Report, Volume 8, Number 12, 8 July 1996, page 94.

(qq) "Dramatic Drop in our infant mortality rate", Post-Intelligencer, 2 August 1996, pages C1, C4

(rr) "ATA Questions Validity of Airport Construction Needs Study; Says Adequate Funds Exist for Necessary Airport Projects", ATA News, Air Transport Authority of America, 20 March 1996

(ss) "Rockwell has won back the Global Positioning System (GPS) satellite contract", The Composites & Adhesives Newsletter, July-September 1996, page 3.

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(uu) "Air Pollution, Council's report based on Epidemiological study", by R. Kassel, National Resources Department Council Urban Environmental Program Sr. Attorney, Post-Intelligencer, 16 June 1996, page E3.

(vv) "Flying Off-Course: Environmental Impact of America's Airports", National Resource Defense Council, October 1996 need to reference

(ww) "Waste Clean Up, Safe and Sound?", Highline News, 23 November 1996, pages A1, A7 (additional information supplied by a participant)

(xx) "Third Runway Battle, The Big Dirt Haul", Highline News, 16 November 16,1996, pages A1, A2 (Shows map of potential haul routes referenced in FEIS (ref. d))

(yy) Engineering Principles of Ground Modifications, by Manfred R. Hausman, McGraw-Hill Publishing Company, New York

(zz) Soils in Construction, Third Edition, by W/. L. Schroeder Prentice Hall, New Jersey

(aaa) "Sea-Tac Third Runway to get its fill of dirt", Seattle Times 15 August 1996 pages A1, A19 (runway 14 feet below FEIS assumptions)

(bbb) Letter to FAA. D. Ossenkop, From Mary Riveland, Director WA DOE, dated 20 December 1996

(ccc) 49 U.S.C, 47101 et. seq. (formerly Airport and Airway Improvement Act, Section 509, paragraph (7) (A))

(ddd) Washington State Legislature Release, " South King County Lawmakers Question Approval of the Third Runway Plan", dated 20 December 1996.

(eee) "DOE Gives OK to Runway", Highline News, Page A7, December 21,1996

(fff) " Dust Emissions at North SeaTac Park", Puget Sound Air Pollution Control Agency Notice of Violation No. 35809, Registration No.

P371603874-75, Regulation I, Section 9.15 (a) : Emission of Fugitive Dust without use of best available control technology, 8 August 1996

(ggg) Letter regarding Snow Equipment Storage Shed Environmental Checklist and Determination of Nonsignificance, From Port of Seattle, Barbara Hinkle to Debi DesMarais, 25 July 1996

(hhh) " Asbestos Delays North SeaTac Work", Highline News, 13 July 1996, page A8

(iii) "Plane Crashes at SeaTac", Highline News, 24 August 1996, page A1

(jjj) "Girl Struck, dies in I-5 Jam Detour", Highline News, 4 September 1996, page A1

(kkk) "Infant Death Rates Still Higher Here", Highline News, 6 October 1996, page A3

(lll) FAA report "Impact of Boeing Field Interactions on the Benefits of the new proposed runway.." Feb. 1993

(mmm) "Draft Sea-Tac Mitigation Study", Burien - Airport Assistance and Mitigation Studies, 21 October 1996, Final ~~to be~~ released March 1997 ▷

(nnn) Appeal of the Adequacy of the FEIS for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport, Filed by City of Sea-Tac

(ooo) Appeal of the Adequacy of the FEIS for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport, Filed by Akers

(ppp) Appeal of the Adequacy of the FEIS for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport, Filed by Cities of Des Moines, Burien, Federal Way, Normandy Park and Tukwila, Highline School District 401, Airport Communities Coalition

(qqq) Lawsuit filed by Cutler & Stanfield , Filed by Cities of Des Moines, Burien, Federal Way, Normandy Park and Tukwila, Highline School District 401, Airport Communities Coalition

(rrr) Earth Pressures and Retaining Walls, Whitney Huntington, John Wiley & Sons, NY, 1957

(sss) " Different Dirt, FAA Rejects fill plan to extend airport runway in Albuquerque"< Highline News, January 29,1997, page A1

▷ Sea-Tac International Airport Impact Mitigation Study, Initial Assessment and Recommendations, February 1997

(ttt) "Environmental Assessment for Proposed Improvements to Runway 3-21, Albuquerue International Airport", prepared by Coffman Associates, Inc. June 1994

(uuu) Sea-Tac Noise Exposure Update , June 1982

(vvv) Draft Supplemental Environmental Impact Statement for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport, February 1997.

(www) World Wildlife Fund Newsletter, "Focus", March/April 1997, Volume 19, Number 2

(xxx) "A Comparison of FAA Integrated Noise Model Flight Profiles with Profiles Observed at Seattle-Tacoma Airport" by George W Flathers, December 1981, Office of Environment and Energy Project 1494A, Contract DTFA01-82-C10003, Mitre: Metrek Division

Note: This is only a partial list of references. Typically, the same information appears in multiple locations. All correspondence to the FAA, Port of Seattle, PSRC, Corp. of Engineers, Dept. of Ecology, Environmental Protection Agency, Expert Noise Panel, PSAPCA, and Dept. of Transportation on current airport operations as well as the Third runway are applicable.

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Health Effects of Outdoor Air Pollution; American Family Physician

Airplane Emissions A Source of Mutagenic Nitrated Polycyclic Aromatic Hydrocarbons; Case Western Reserve University School of Medicine

Breathless; Natural Resources Defense Council

Particulate Air Pollution as a Predictor of Mortality in a Prospective Study of U.S. Adults; Respiratory Critical Care Medicine

Atmospheric Reactions of Polycyclic Aromatic Hydrocarbons; University of California, Riverside

An Association Between Air Pollution and Mortality in Six U.S. Cities; New England Journal of Medicine

A Critical Review of the Health Effects of Atmospheric Particulates; Toxicology and Industrial Health

Health Effects of Particulate Air Pollution: Time for Reassessment?; Environmental Health Perspectives

Environmental Risk Factors for Primary Malignant Brain Tumors; A Review; Journal of Neuro-Oncology

Appendix B: NEPA Regulatory Issues Summary

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

CITATION OF REGULATIONS WHICH APPLY TO VIOLATIONS AND POTENTIAL VIOLATIONS OF THE ACT IN THE DOCUMENTATION PROVIDED BY THE FAA/PORT OF SEATTLE AS CO-LEAD AGENCIES IN A NEPA/SEPA PROCESS FOR THE THIRD RUNWAY DEVELOPMENT MASTER PLAN UPDATE (FEIS) AND RELATED PROJECT SASA BASE (NEPA will be italicized)

ß1500.1 Purpose
Section 102(2) contains "action-forcing" provisions to make sure that federal agencies act according to the letter and spirit of the Act.

ß1500.2 Policy
(b) Environmental impact statements shall be concise, clear and to the point, and shall be supported by evidence that agencies have made the necessary environmental analysis. (underlining added)

Many of the statements in the EIS were supported by phone conversations. Others were not substantiated. Although documentation was requested by myself and many others who commented on the draft EIS, no additional technical or supporting data, that I could find, was supplied in the final EIS.

(e) Use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment.

ß1501.2(c) Study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources as provided by section 102(2)(E) of the Act.

In 1993, a resident of Centralia presented an area of 37 to 50,000 acres of available, largely vacant land in Tenino to then King County Executive Gary Locke and the PSRC for consideration as a new airport site and this site was never pursued, evaluated or explored as an alternative to Sea-Tac expansion. At that time, there were 300 homes on the land. The Port of Seattle has publicly stated that there is a need to pursue, site and develop another airport prior to or shortly after the year 2020. Viable alternatives have not been pursued or evaluated.

Flight Plan nor the FEIS identified reasonable alternatives to the proposal. Existing technology such as LDA used at San Francisco (700') in an airport layout with less runway separation than existing Sea-Tac (800') according to expert testimony can eliminate the need for an additional bad weather landing runway 2500' from the existing west runway (16R34L) (1700' from the existing

west runway 16L34R). Future technology GPS (2001) and GDSB can eliminate bad weather landing constraints at Sea-Tac and can completely alleviate the need for a third runway.

The Port of Moses Lake has 350 VFR days per year in comparison to Sea-Tac 44% bad weather delays. Moses Lake is approved for a Foreign Trade Zone whereby cargo from the Pacific Rim and elsewhere now utilizing Sea-Tac could be alternately destined alleviating the pressure on Sea-Tac.

Port of Moses Lake is equipped to handle maintenance of aircraft. WAC 173-60-050(d) provides that maintenance facilities be located away from populated centers whenever possible. Moses Lake has over 1,000,000 sq. ft. of hangar space available to handle maintenance where Sea-Tac would have to incur a great public expense to site, build, and quiet such a facility. The proposed SASA site is near neighborhoods. businesses and a mobile home park. An extended land bridge with a tunnel would have to be built to accommodate planes moving across 188th.

The NEPA (FAA)/SEPA (Port of Seattle) Final EIS for SASA contains a letter from the Department of Interior stating that no endangered species have been identified near the project (SASA) site. However, the letter also indicates that:

"Should a species become officially listed or proposed before completion of the project, the FAA will be required to reevaluate its responsibilities under the Act."

A Bald Eagle nest has been recently listed located at the northeast corner of Angle Lake, only a few city blocks away from the proposed SASA site. The FAA, according to the DOI, must now reevaluate the project and under NEPA, consider other alternatives.

Moses Lake, multiple airport use recommended by Flight Plan, technology, Tenino are all viable alternatives to the proposed action which have not thoroughly been evaluated or considered. The use of Moses Lake as a reliever airport for cargo and a maintenance base would eliminate the commitment of resources such as the loss of Des Moines Creek Basin wetlands and salmon bearing creek to name only one of many avoidable adverse environmental impacts.

ß1500.4 Reducing paperwork. Agencies shall reduce excessive paperwork by:
(a) Reducing the length of environmental impact statements (1502.2(c)), by means such as setting appropriate page limits

(b) Preparing analytic rather than encyclopedic environmental impact statements

Much of the content of the draft and final EIS consisted of repetitive narrative that might have appropriately been replaced with substantive data and credible scientific analysis.

ß1503.4(a) An agency preparing a final environmental impact statement shall assess and consider comments both individually and collectively, and shall respond by one or more of the means listed below, stating its response in the final statement. Possible responses are to:

(2) Develop and evaluate alternatives not previously given serious consideration by the agency

(3) Supplement, improve or modify its analysis

(4) Make factual corrections

(5) Explain why the comments do not warrant further agency response, citing the sources, authorities, or reasons which support the agency's position and, if appropriate, indicate those circumstances which would trigger agency reappraisal or further response.

The documents were confusing, maybe purposefully so, it was not clear if comments were adequately addressed and important information that was extremely difficult to find or know it was there was scattered throughout the massive document.

Considerable time and space was spent on detailed statements of purpose and need that were never substantiated. The entire purpose of the document and the project itself was based upon a bad weather delay assumption that was easily dispelled as faulty not only by consultants working for the ACC but also by the project co-lead agency, the FAA itself, reporting statistics of national delay with Sea-Tac in the nation's top ten of best on-time performers. The assumption of bad weather delay along with the premise of utilizing Sea-Tac Airport with billions of dollars worth of improvements including a third runway at the same capacity with or without the runway, with or without the delays which don't exist, should have logically dispelled the entire purpose of the runway in everyone's mind. This did not happen but should have happened.

Regarding the need for an addendum to the existing document, an SEIS or an entire new EIS, NEPA ß1502.25.(4)(c) states:

An agency shall revise the determinations made under paragraphs (a) and (b) of this section if substantial changes are made later in the proposed action, or if significant new circumstances or information arise which bear on the proposal or its impacts.

Although the PSRC rejected requests for a supplemental EIS, the FAA, under NEPA, is compelled to consider all information presented to them regarding conformity, environmental justice and any other "new" or "substantive" information that may have been provided during the comment and review period(s) warranting an SEIS.

ß1502.4(a) Proposals or parts of proposals which are related to each other closely enough to be, in effect a single course of action shall be evaluated in a single impact statement.

This regulation should be applicable to any joint project proposal from the FAA/Port of Seattle under NEPA such as the SASA base and the current removal of soils and localizer relocation. However, I consider that many projects that have been proposed by the Port itself under SEPA as either a final EIS or a DNS are also part of the overall development plans of the Port to renovate the airport, appearing to the public as part of the Master Plan and should have been analyzed in a single document, especially considering the potential for cumulative and multiple project impacts of the following:

1) The Hotel (1994 final EIS)
2) North SeaTac Park (20+ year old EIS where significant new information is available)
3) North SeaTac Park Detention/Retention Pond Project (1995 DNS)
4) Federal Detention Center (final EIS 1992?)
6) Enplane Drives/Asbestos Project (1995 DNS)
7) RSA (1995/96 DNS 16R)
8) CTI (1995 EIS)
9) South Access (1995/96 draft EIS WSDOT)
10) 28th/24th Arteria (1993 SeaTac City EIS)
11) Phase I/Phase II International Blvd. (1994? EIS (contains erroneous air quality data and conformity analysis which should be revised based upon Master Plan FEIS data)
12) North Fuel Rack (1996 DNS)
13) Northwest Fuel Tank Remediation (?)
14) Federal Express expansion (includes relocation of employee parking lot A & B to north of SR 518. Federal Express expansion was not included in the Master Plan, but the parking facility was. However, the parking facility was dropped from development plans due to the large acreage of wetlands located at the proposed site. If Federal Express expands now, what will be the new location of the employee parking in the future?)
15) Others

B1506.1(2)(c) While work on a required program environmental impact statement is in progress and the action is not covered by an existing program statement, agencies shall not undertake in the interim any major Federal action covered by the program which may significantly affect the quality of the human environment unless such action:

(1) Is justified independently of the program:

(2) Is itself accompanied by an adequate environmental impact statement; and

(3) Will not prejudice the ultimate decision on the program. Interim action prejudices the ultimate decision on the program when it tends to determine subsequent development or limit alternatives.

Since I view the many projects listed above as part of the Master Plan or closely enough related to the overall development program, I also view the projects that have begun under designations of nonsignificance and separate EIS documents as a violation of this chapter of NEPA. However, since they have been singled out by the lead agencies as independent of the overall development they have no cumulative impact analysis and the projects which

have a designation of nonsignificance, which might be significant if added to other past, present and future actions irregardless of significance, have not been analyzed for their adverse multiple consequences to the human/natural/built environment. Therefore, most responsible agencies and officials which have purview over significant impacts in one EIS are potentially unaware of the total and cumulative impacts of reality, not paperwork, that is occurring today at Sea-Tac Airport and environs.

ß1508.25 Scope (2) Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement. (3) Similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography. An agency may wish to analyze these actions in the same impact statement. It should do so when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions is to treat them in a single statement.

(b) Alternatives, which include: (1) No action alternative (2) Mitigation measures (not in the proposed action). (c) Impacts, which may be; (1) Direct; (2) indirect; (3) cumulative.

It is my contention that the SR509/South Access Federal Highway Administration and WSDOT co-lead agency proposal should include the 28th/24th arterial project, the enplane drive improvements and any other connecting roadwork planned for the general area, their impacts and commitments to mitigation. These three are in the same geographical area, will coincide in timing, are roadways which will interconnect; i.e., state route, local arterial and airport drives, together in a more efficient manner, but at the same time creating the potential to significantly add traffic loads, thereby, exacerbating potential NAAQS CO violations. The cumulative effects of these projects should be analyzed together, in fact, these roadworks, in my opinion, are well suited for just this reevaluation in the spirit and intent of this particular NEPA chapter. Maybe the Port of Seattle should be responsible for this cumulative analysis since the primary purpose of generating additional vehicle carrying capacity of these roads is to accommodate airport related future automobile and cargo traffic increases. Whoever might be responsible is irrelevant, it needs to be done and according to NEPA, it should be done before approval of the two major federal actions. Once the reevaluation is complete, and should this area remain in nonattainment (maintenance) this project must then meet conformity requirements to be elligible for federal funding, approval and support, i.e., ISTEA, other federal agency funds.

ß1505.2 ROD(c) State whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not. A monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation.
ß1505.3 Implementation: Agencies may provide for monitoring to assure that their decisions are carried out and should do so in important cases. Mitigation

January 15, 1998

Permit Coordination Unit
Department of Ecology
P.O. Box 47703
Olympia, Washington 98504-7703

Attention: Permit Coordination Unit

Reference: Port of Seattle 96-4-02325 –Department of Ecology Application for State and Federal water pollution control and Coastal Zone Management Act Certification.

- There was no legal notice for this application to the general public.
- I question the legality of a Notice of Application from the Department of Ecology being inserted on the back page of a Corps application. 1
- I am requesting that DOE have a separate comment application with a public notice to the public.
- There is an Agreed Order in process and these certifications cannot be issued until the Agreed Order has been approved. 2

The following comments apply to both notices. The Federal Clean Water Act and Federal Coastal Zone Management Act.

- Due to the many **unanswered concerns** of the citizens affected by this project we are requesting an extension of the comment period and a public hearing to be held at a convenient location and time within the affected area. Request that the time of day be evening hours (not during rush hour) and that the Corps provides a court reporter to provide a transcript of the public testimony. 3
- The public notice dated December 19, 1997 arriving in mailboxes December 24 and 25 while members of the public are involved with vacations, vacation preparations, and family activities during this time of the year. It has been very hard to get a copy of the application from the Corps to comment on.

- Documents referenced in application and needed for comments are not readily available. All materials should be in libraries within the affected area. Jonatham Freedman project manager for this permit is out of the office and will not return until January 12. The Project manager should be available to the public for the time frame of the project.

4

- The Corps should physically inspect all wetlands before a permit is issued. The EPA has Ariel photos of wetlands is this project area. The Corps should have gotten a copy of these maps from the EPA if you do not know where and how many wetlands there are in this permit area.

5

- <u>There are alternatives to this project.</u> The Puget Sound Air Transportation Committee, (PSATC), a committee of 32 members consisting of elected officials and the public spent over two years and $2 Million dollars studying air transportation for the Puget Sound Region. The recommendations from this committee to the Puget Sound Regional Council, PSRC, included the following.

  1. Sea-Tac Airport along with Paine Field was recommended to be a short-term solution.
  2. A new airport was to be built by 2020.

- The PSRC made a political choice to expand Sea-Tac Airport and to **exclude** Paine Field. In excluding Paine Field the **<u>public need</u>** of the people will not be met for air transportation in this region. Sixty to seventy percent of Sea-Tac Airport's passengers come from north of Seattle.

- Paine Field is the most logical, least costly and with no loss of wetlands or the potential loss of the very important Highline Aquifer. The Highline Aquifer serves as a drinking source to many thousands of citizens. What will be the cost to the Citizens of this area (that now use the Highline Aquifer for drinking water) if the Aquifer is damaged?

6

- The potential loss of the wetlands (placed out of this watershed) and the Highline Aquifer to this region is a very serious consequence.

6

- Due to the high dollar cost of this project, the loss of wetlands, the damage to the Highline Aquifer, and the availability of an alternative the CORPS should not permit this project.

7

- The application states, (footnote) additional wetland areas and acreage could be identified when access is available to project area. The CORPS should not permit this project until all wetlands are identified. The **Corps should not permit** any project of this magnitude until they are sure of what they are permitting.

8

- Page one, paragraph under (Work) first page of application states (An additional 1.70 acres of fill will be placed in wetlands to construct the South Aviation Support Area (SASA) facilities for airport support and maintenance facilities 1 mile south of the existing terminal). This is a confusing statement. Which wetland will the 1.70 acres of fill be placed? If this statement means another wetland will be filled to support the SASA facility, please identify.

9

- The Port did a Groundwater Quality Impact Evaluation Study for the North Parking Lot. This study took core samples examining the Highline Aquifer along with other studies. There is no mention of groundwater quality impact studies in this application for this project. This application is lacking in any studies of core studies for the permit area.

- The Groundwater Quality Impact Evaluation Study of the north parking lot concluded that the Highline shallow and intermediate aquifer are not connected. Where and how does the Highline Aquifer get recharged? This must be studied before any wetland permit is issued.

- Will the loss of wetlands in this project area affect the recharging of the Highline Aquifer? Has the Corps assessed this concern?

10

- Wetlands should be replaced within the same water shed, preferable at the south end borrow sites within the Port's property.

- There are many sites within this same watershed to replace lost wetlands without the hazardous to aviation. The Port had not done any studies of replacement in this area watershed.

AR 037046

11 • The State should complete their review and issue water quality certificate before this permit is issued.

12 • Corps failed to coordinate this permit application with the Department of Ecology's NPDES permit application.

13 • The amount of fill dirt is understated. The permit application states 20.6 million cubic yards versus the 26.4 million cubic yards stated in the Port's SEIS.

14 • Will Lake Burien be affected by this project?

15 • The South Aviation Support Area (SASA) is not a public need for this area. FAA procedures states maintenance bases should not be constructed in urban areas.

16 • The weight of the dirt on the Highline Aquifer has not been identified. What will be the damages to wetlands, the watershed and the Highline Aquifer if this project is permitted?

17 • The map identifing the wetlands in this application is unacceptable. The map should clearly show the wetlands that are to be filled and the wetlands that are to be affected. It is impossible to tell them apart.

18 • Regional loss of wetlands in the Des Moines, Miller and Walker Creek watersheds are not identified in this application as <u>losses</u> to the region while the benefits of the wetland replacement in Auburn are identified as a <u>benefit</u> for the region. The regional loss of wetlands should be assessed for the project area at Sea-Tac Airport.

Minnie O. Brasher

Minnie O. Brasher
846 South 136th
Burien, Washington 98168

cc.
Commander Robert H. Griffin, Corps

Carol Browner, EPA Administrator
Puget Sound Regional Council
Dept. of Interior, Office of Inspector General
Senator Patty Murray
WA Senator Julia Patterson
Rep. Jim McCune
Honorable Gov. Gary Locke
CASE
Chuck Clark, EPA
WA Dept. of Ecology
Rep. Karen Keiser
Port of Seattle
Sen. Mike Heavey
U.S. Rep. Jim McDermott
Mayor Kitty Milne, Burien
King County Ex. Ron Sims
Rep. Eric Poulsen
Frank O. Ellis, Inspector General
Senator Adam Smith
ACC
FAA
People for Puget Sound
Rep. Dow Constantine

January 16, 1998

Permit Coordination Unit
DOE
P.O. Box 47703
Olympia, WA 98504

It has been brought to my attention that the last page of the Corps of Engineers 96-4-02325 draft permit indicates that the permit review for Section 404 of the Clean Water Act will be combined with Ecology's 401 permit review.

Attached are my comments to the Corps on 96-4-02325 (without attachments).

1 I protest the inclusion of the 401 Ecology draft permit with the 404 Corps draft permit.

Please answer these requests:

1. Extend the comment period for the 401 draft permit review.

2 2. Schedule a public meeting on the 401 draft review.

3. Will you send me a copy of Ecology's public notice notifying the public that Ecology has applied for a 401 permit to fill in
3 the wetlands?

4. Please send me the maps and charts and written description that Ecology has prepared for its 401 draft permit.

Sincerely yours,

Barbara Stuhring

Barbara H. Stuhring
24828 9th Pl. S.
Des Moines, WA 98198

January 15, 1998

Jonathan Freedman
Corps of Engineers
P.O. Box 3755
Seattle, WA 98124

Subject: 96-4-02325

Dear Mr. Freedman:

The Port of Seattle requests permission to fill in about 12 acres of wetlands. These wetlands, according to the Port, must be destroyed in order to meet the public's transportation needs. The Port's 3 projects which are proposed are:

1. Runway Project
2. RSA Project
3. SASA Project

RUNWAY PROJECT

1. The public transportation needs can be met with the use of Paine Field (passengers) and Boeing Field (cargo). No wetlands need be destroyed if these 2 airfields are used. Paine and Boeing are already laid with concrete and the runways are long enough and strong enough to accommodate new and old jets. The runways are in use now and can readily take more air traffic.

2. This draft permit is wrong to state that the purpose of the runway project is to "address poor weather aircraft operating delay". If this were true, then it is a poor site to place a runway costing more to build than any other in the U.S. "Poor weather" is mentioned 4 times in a 4 sentence paragraph. The wording is meant to play on the reader's sympathies invoking a picture of a rainy, stormy scenario many days of the year. The real "purpose" of the runway project is to increase overall traffic in good weather, too. (See Ms. Lindsey, Aviation Director's letter attached dated October 31, 1997.) The accumulated impacts of all the increased activity in good and poor weather will further erode protection of the public.

RSA PROJECT

The public transportation needs have been met for many years with the present FAA-accepted RSA. Until the Port decided on this runway project, never has safety been compromised; that is according to FAA and Port officials. The possibility of "injury/damage" due to inadequate RSA's has only arisen since the new runway project was published in the FEIS. Please ask the

6. There is no reason to do heavy maintenance in a metropolitan area. Heavy maintenance can be done any place, including the middle of the desert where wet lands do not exist. The Corps can deny permission and save our community and wetlands from further contamination.

ENDANGERED SPECIES

Will the Corps read the FEIS for the third runway and master plan update in regard to endangered species? A huge section is devoted to the study of threatened bald eagles nesting to the west on the Sound miles away from the project. Recently it was brought to the attention of the Port that eagles are nesting much closer to the east; in fact only about 2 blocks from the proposed SASA site. Consultants working on the FEIS failed to study this close-in site. These eagles to the east are seen flying westerly over airport property to their feeding grounds on the Sound. If this project is permitted, and a great increase in air traffic takes place, then certainly the eagles will be increasingly threatened.

HISTORIC PLACES

This category is included to make sure planned projects do not adversely impact historical places. And if they do, then the project can not be built. This draft permit mentions Sunnydale School as an historical site with the potential to be eligible for the National Register. The school lies across the street from the airport buyout project. The Port indicates Sunnydale School will not be impacted if insulated. But the school, in order to remain as an historical place must not have any modern changes such as insulation. It's a catch-22. In essence, if the Corps permits this project, Sunnydale School will no longer have an historical place status.

WATER SUPPLY

The Flight Plan Project, the SASA EIS, the RSA DNS, the FEIS for the Third Runway and Master Plan Update allude only in the briefest terms to the Highline Aquifer which lies beneath this project. The Highline Aquifer supplies Seattle and Highline area households with drinking water.

1. When millions of cubic yards of various kinds of imported and untested dirt are tamped down on top of an aquifer, how is its function affected? And how are nearby wetlands affected?

2. Will the Corps request a determination of the depth of the aquifer under the runway project and under the SASA project?

3. If acres of wetlands are filled as a result of these 3 projects, how much loss will there be to the aquifer's water supply and how much loss of wetland filtration of pollutants? Will the remaining wetlands take up the slack, recharge our water supply and keep it free of contaminants?

4. Removal of acres of this natural groundwater recharge area may require an alternate source of water. What would be the cost to water customers of buying water from another source?

5. Water is a natural resource and its protection is provided for in the Federal Clean Water Act.

6. The Corps is the agency which protects the wetlands. It is difficult to restrict our comments to the subject of wetlands only. Surface water and groundwater at Sea Tac both of which are polluted in places, affect wetlands The Corps should be in consultation with the EPA and the State DOE in regard to permitting these three projects.

7. Lately the Port has been disparaging our wetlands. (See attached). The original FEIS for these projects did not describe the wetlands as "low quality" and "degraded". If this is a true evaluation, then there is an even greater need to keep all the 12 acres functioning above the aquifer.

WILDLIFE AND WETLANDS

One of the Port's biggest arguments for filling in our wetlands is the necessity to minimize "wildlife attractions". For years the wetlands have existed and functioned in the vicinity of Sea Tac Airport. The Port in the past has been quiet about any threat from wetlands. Now the Port says they must go.

But, besides this new plan to eliminate wetlands because of a wildlife attraction, the Port actually plans to ADD attractions. (see attachments). Yes, 12 acres of wetlands will be filled but the Port will create:

1. A larger Tyee Pond
2. A larger Reba Pond

3. Two cells of dense vegetation

4. Stream relocation for SASA will "provide an enhanced new habitat"

5. New acres of wetland at Barnes Creek within a mile of the runways.

The Port could have but has NEVER tried to discourage birds by netting.

The Port states the FAA will not certify airports that have wildlife attractions within 10,000 feet of a runway.

1. This policy is still in DRAFT form only, and it is very doubtful that it will become a regulation. Will the Corps ask the FAA if any definitive policy has been published?

2. On Long Island, New York near Kennedy is located one of the most popular and enhanced wildlife habitats in the U.S. and the FAA doesn't suggest that it be removed.

3. The Port allows wetlands and flooding to occur in the winter in the lowlands next to the south end of the runways. The birds flock and remain as long as the flooding is there (during every rainstorm). See attached photos I took of single large birds and flocks of birds. The Port has never, to date, considered this as a safety concern or wildlife attraction because to control this flooding or to net over the water would require a large expenditure of money.

Without consulting with the surrounding city planners, the Port has purchased 69 acres in Auburn in another watershed because, the Port says, there is no where mitigation can take place near the airport. The Corps must refute this claim. If it is true, then our aquifer is, indeed, in trouble. If it is not true, the Corps should speak up and say it isn't.

GENERAL COMMENTS AND QUESTIONS

1. The NEPA and SEPA process for SASA occurred many years ago, and conditions have changed. When does the time period for such a process run out and when is a review mandated?

2. The Port, if permitted to proceed with these projects, will need new jet fuel storage for an anticipated 40% increase in

fuel. Where, in relation to the remaining wetlands, will the fuel be stored? And where will it be stored in relation to the 12 acres in question? Over a million gallons of fuel are pumped every day at Sea Tac with 2 runways.

3. It is requested the Corps make available (upon request) to the public all referenced material in the draft permit - copies of FEIS pages, maps, attachments A through B, etc.

4. You have not issued a 404 permit to the Port yet the Port went ahead within the delineated wetland area and bulldozed 30 or so acres at Borrow Site #5. Why did the Corps give permission to start bulldozing before a 404 application was accepted?

5. The Port has also been demolishing homes upland from the wetlands. Why have you permitted this before a 404 application is accepted by the Corps?

6. The Corps should be aware of certain legal actions against the Port which are now in progress:

1. The cities of Burien, Des Moines, Normandy Park, Tukwila, Federal Way and the Highline School District are challenging the way the Port developed the EIS for the new runway project.

2. The cities and schools are challenging the findings of the EIS itself.

Because of the pending lawsuits which question the basics of the EIS findings (including wetlands), the Corps should delay any more action on this draft permit process. And because it is highly speculative that the Port will ever be able to fund and build this project, the Corps of Engineers should hold off approval of the destruction of 12 acres of wetlands.

cc: Commander R.H. Griffen
Director Chuck Clarke EPA
Lawrence Andriesen FAA
Adam Smith Congressman
Karen Keiser Congresswoman
Jim McCune Congressman

Submitted by:

Barbara Stuhring

Barbara H. Stuhring
24828 9th Pl. S.
Des Moines, WA 98198

Enclosures

DOE-P-6

Publiuc Notice for Permit/Reply

RECEIVED

Henry J. Frause
411 S.W. 186th
Normandy Park, WA., 98166-3959

FEB 0 6 1998

DEPT. OF ECOLOGY

Tα U.S. Army Corps of Engineers
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA., 98124-2255

Attention: Jonathon Freedman, Proj. Engr.

Ref. Port of Seattle 96-4-02325, "Construction Overview" .
Subject: Request for an Army Permit in Accordance With Section 404 of the Federal Clean-Water Act.

Dear Mr. Freedman,

This is a request for some specific directions from your Agency that must be clarified before your Department can issue a construction permit to the Port of Seattle.

Please clarify for me just exactly how your "Permit Procedure" is or can be implemented by your Department--(A Branch of the United States Armed Forces)--to give authorative permissiuon to a private Corporation under State Statute when in fact the ACLU says that Statutes are strictly under State Constitution; and that the United States Government does not...(repeat)... does [NOT] recognize State Statute Governments.

1

1. WHEN THE UNITED STATES DOES NOT RECOGNIZE STATUTE, WHY IS THE UNITED STATES GOVERNMENT--[THAT'S YOUR DEPARTMENT]--PERMITTING A STATUTE? (THE PORT).
2. WAS THE U.S. DEPARTMENT OF DEFENSE (CORP OF ENGINEERS) GIVEN AN EXECUTIVE ORDER TO DO SO BY THE PRESIDENT. IF SO, PLEASE PROVIDE THE EXECUTIVE ORDER NUMBER; AND/OR ANY GRANDFATHER CLAUSES ASSOCIATED WITH THE UNITED STATES PERMITTING A STATUTE IN THE STATE OF WASHINGTON? (THE PORT).

2

3

I hereby submit my objection to the issuance of a Permit by your Agency until the above questions are clearly answered. Also, I object to the Department of Ecology trying to piggy-Back its entry into this statutory document. Federal Government will not permit that. I hope I have made my position clear to you because this is a grave misdemeanor. Thank you.

Sincerely yours,

Henry J. Frause

Henry J. Frause

Saturday, Jan. 17, 1998

AR 037055

DOE-P-7

RECEIVED

FEB 0 6 1998

DEPT. OF ECOLOGY

Airport/Request for Permit from Army Corps of Engineers

Henry J. Frause
411 S.W. 186th
Normandy Park, WA., 98166-3959

To Ms.Lisa Zinner, Permit Manager
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA., 98008

Ref. Henry J. Frause Letter to Jonathon Freedman, U.S. Army Corps of Engineers, dated Jan. 17, 1998.

Subject: Request for an Army Permit in Accordance With Section 404 of the Federal Clean-Water Act.

Dear Ms. Zinner,

The above ref. letter presents a statement given to me and my constituents by the ACLU that... Statutes are controlled by Washington's State Constitution; However, the United States Government does not recognize State's Statutes. Whatever the State does is up to the State. In that context, then, the Federal Government has no jurisdiction over providing Permits that control State activities; neiher does the U.S. Army Corps of Engineers--it's Federal.

The United States Army Corps of Engineers (being a sub-agency of the Federal Department of Defence) is a Federal Agency and cannot intervene in State Politics and issue Building Permits to anyone.

Please inform me whether or not the Department of Ecology has any documentary information that allows the DOE permission to issue Permits. I don't think you have that capability, as yet, and I object to the DOE trying to piggy-back itself into this statutory permit document to acquire it. I'm unable to find any information which indicates that the State Legislature has given you that authority.

It is my request that a public hearing be conducted and that this subject matter be discussed and incorporated in the application because the results may be evaluated as being subject to a grave misdemeanor if not addressed. Thank you,

Sincerely yours,

Henry J. Frause

Henry J. Frause

February 4, 1998

AR 037056

DOE-P-8

Dear Mr. Luster

4-1-98

I'm very concerned about the impact this project would have, if approved on two areas

1. The wetlands to be filled are "virgin wetlands" for the most part. They have not been compromised by farming or development. The same basic wildlife has been in these areas for thousands of years, except that which has been killed by polluted runoff from the airport. The natural peat bogs in the area are many tens of feet thick, this type of wetland could not be "re-created" except in another peat bog area. The proposed green river area is not of this type. Another aspect of peat bogs is their preservation of fossels - animal and human. When the FAA oversaw the construction of the North runway light towers several ice age period fossels were found including a giant sloth these possible discoveries would be forever lost.

2. The Port proposes moving miller creek and building enhanced spawning areas for fish. This wouldn't work because of the degraded water quality at the source.

Corps of Engrs/FAR 150 Wetlands #2

Henry J. Frause
411 S.W. 186th
Normandy Park, WA., 98166-3959

To: U.S. Army Corps of Engineers and
Washington Department of Ecology
Seattle District
Regulatory Branch
P.O. Box 3755
Seattle, WA., 98124-2255

Attention: Jonathan Freedman, Proj. Engr

Administrators of FAR 150 Land
Auburn.....Chuck Lowry, Mayor
Burien.....Kitty Milne, Mayor
Des Moines.....Scott Thomassson, Mayor
Federal Way.....Ron Gintz, Mayor
Highline School..Dr.Joseph McGeehan, Supt.
Kent.....Jim White, Mayor
Normandy Park..John Wittse
SeaTac.....Terry Anderson, Mayor
Tukwila.....John W. Rants, Mayor
King County.....Greg Nickels, Council member
King County.....Dwight Pelz, Council member

FAR 150 WETLANDS

Far 150 Regulated Wetlands exist near the Sea-Tac Airport; and there are people living on those contaminated areas. There is no way that an Abnormal body of wetland can be physically and/or geographically displaced from one location to another. Yet the United States Corps of Engineers are calling for a Public Hearing to announce that such a displacement can be produced merely by using a sheet of paper with the title "PERMIT" printed on it.

If the Corps can successfully engineer such a miracle, can Kansas City then ask the Corps to transfer Mount Rainier to Kansas City?..Can the Corps move Olympia to Seattle?..or a group of dams on the Columbia River to California? This prescedent-setting miracle could open Pandora's Box and create a never ending series of problems for the Corps under Autocratic Exemption.

One of the problems caused by removing FAR 150 Regulations from Federal control was to allocate the control and its enforcement activity over to the Port of Seattle. The enactment of Senator Wendell Ford's "Airport Capacity Act of 1990" initiated the transfer of a Resolution submitted by the Port of Seattle that was entered into the Act by reference only..by Senator Slade Gorton. This legislative action abstracted all the citizens of the 10-FAR 150 Jurisdictions from the Constitution and placed them under the control of the Port of Seattle. No Act is Constitutional that will remove Public citizens from the protection of the United States Constitution and the Bill Of Rights. *The Port does not have a justice system and as such cannot hold 175,000 FAR 150 citizens hostage.

Before the Corps goes any farther with this business of providing a permit to the Port of Seattle to relocate wetlands from FAR 150 to Auburn, the personnel of the Corp better think about the consequences of what might happen to them if they insist on continuing with their strategy.. Are you quite sure that the citizens (trapped by this mediated process) are fully under the control of the United States Justice System.? Don't plan for one minute that these citizens are fully protected under the Statutory By-Laws of the State of Washington. <u>They are not!</u> Statutory documents will be thrown into the waste basket if this aspect of control is ever brought to trial.

April 2, 1998

DOE-P-9

From: Barbara Stuhring
24828 9th Pl. S.
Des Moines, WA 98198

To: Permit Coordination Unit
DOE
P.O. Box 47703
Olympia, W 98504

Subject: Corps of Engineers Public Notice No. 96-4-02325

Dear Sir:

According to the attached letter from the DOE to the FAA, proposed sources of wetland fill dirt "should be fully analyzed in the FSEIS and/or the 404/402 permit review".

There is no discussion of the sources of the fill dirt in the permit application by the Port to fill in the wetlands.

1 It is of paramount importance that all sources be identified BEFORE the Corps and DOE accept the application. No one is quite sure of the origination of the 350 thousand cubic yards of dirt already trucked in without a permit.

I would appreciate an answer before April 9th. Thank you for your timely response.

Sincerely yours.

Barbara Stuhring, April 2, 1998

Barbara H. Stuhring

AR 037059

Salmon have been planted numerous times in Des Moines creek with some success only to be destroyed by polluted runoff from the airport and "accidental" spills of de-icer, fuel and sewage. If the natural source of the stream flow (rain replenished springs) is cut off by paving over the ground around the springs and bog areas the only source of water for those creeks will be polluted runoff from the airport and streets. In that case you could spend millions of dollars for "enhanced" spawning areas and not have a single fish. With Chinook salmon endangered and puget sound silver salmon also endangered can we afford to elimenate two more streams?

2

Sincerely

David L. Dorough

David L. Dorough
617 S. 195th
Des Moines, Wa 98148
206-878-1628

include some wildlife habitat for those species that do not present a safety hazard to aircraft. This should also be clarified throughout the document, especially in Section 5-5.

- Table, Page 1-11 -- This table includes a 1.7 acre wetland impact due to the South Aviation support Area (SASA). Ecology understands that the permit application being reviewed by the Corps of Engineers (Corps) does not include the SASA area, and that this area of wetland impact is not considered a part of the third runway expansion project. However, if the proposed SASA is likely to be considered for permit review in the near future, Ecology would support an effort by the Port to provide mitigation now for the potential 1.7 acre wetland loss. Including mitigation now in advance of this potential wetland loss could allow a successful mitigation site to develop before the impact takes place, and depending on the size and type of mitigation, could result in either a lower ratio of required mitigation or mitigation credit.

- Pages 4-6 and 4-7: Local Land Use Actions -- If a water quality certification is issued for the proposed project, it will be provisional upon compliance with all applicable state aquatic protection regulations, including those required by the State Environmental Policy Act (SEPA) and the Growth Management Act (GMA). The Port should work with the surrounding jurisdictions to ensure that comprehensive plans in those affected communities include recognition of the proposed airport expansion project and are in compliance with the GMA.

- Page 5-4-1: Construction Impacts -- Project-related impacts to wetlands or other waters of the state will be addressed during the 404/401 permit process. This includes any impacts at on- or off-site borrow sites used to supply fill material for the proposed project. Any proposed sources of fill material added after completion of this DSEIS should be fully analyzed in the FSEIS and/or the 404/401 permit review.

- Page 5-4-2: Off-Site Borrow -- Sites used to offload barged fill material for the proposed project may need a new shoreline permit, or may require that the proposed activity is authorized under an existing shoreline permit. This includes the Des Moines Creek conveyor system as described on page 5-4-6.

- Pages 5-4-11 and 12 -- All of the borrow sites will required to comply with the NPDES and State General Sand and Gravel Permit. This permit contains conditions, such as the requirement to implement an Erosion and Sediment Control Plan, that are intended to prevent impacts to waters of the state. The requirement to obtain these permits will be a condition of any water quality certification issued for the proposed project.

- Page 5-4-36: Table 5-4-8 -- Applicable provisions of the Construction Best Management Practices described in this table will probably be included as conditions of any water quality certification issued for this proposed project.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Notice of Application for
Water Quality Certification
and for
Certification of Consistency with the
Washington Coastal Zone Management Program

Date: 19 December 1997

Notice is hereby given that a request has been filed with the Department of Ecology, pursuant to the requirements of Section 401 of the federal Clean Water Act of 1977 (PL 95-217), to certify that the project described in the Corps of Engineers Public Notice No. 96-4-02325 will comply with Sections 301, 302, 303, 306, and 307 of the Act, and with applicable provisions of State and Federal water pollution control laws.

Notice is also given that a request has been filed with the Department of Ecology, pursuant to the requirements of Section 307(c) of the federal Coastal Zone Management Act of 1972 (16 U.S.C. 1451), to certify that the above-referenced project will comply with the Washington State Coastal Zone Management Program and that the project will be conducted in a manner consistent with that Program.

Any person desiring to present views pertaining to the project on either or both (1) compliance with water pollution control laws or (2) the project's compliance or consistency with the Washington State Coastal Zone Management Program may do so by providing written comments within 30 days of the above publication date to:

Permit Coordination Unit
Department of Ecology
P.O. Box 47703
Olympia, WA 98504-7703

AR 037062

We are going to ask the legislatures of both (Federal and State) to release us from the law that removed us from Constitutional law and placed us under a Quasi-Statutory Law which has no Justice Department to protect us.

The result of the legislative action may have an impact on your permit.

2

I am requesting that you withhold your Permit until Congress cleans up this mess. Have your lawyers look into the possibility that we are Royal Subjects...and have been living outside Constitutional law, ...Yet we have been paying taxes to the IRS, and to the State and to the Autocratic Empire of the PORT OF SEATTLE since 1990. Wendell Ford's Act has converted us from United States citizens to Autocratic Subjects under the Royalty system of the Port.

If the Corps or your lawyers cannot substantiate that we are not Royal Subjects of the Port of Seattle,...then what are we? All of the business transactions that we signed for, such as, homes, new cars, computers, etc. and that we voted for at every election up to this time,...has been overlooked...under a pretense that we are Republic Americans in good standing--BUT WE ARE NOT ROYAL COMEDIANS!

If we are indeed upstanding Republic Americans, then we will either have to face felony charges for doing business transactions within our cities without authority and go to jail; or exercise the same exemptions that the Port has, and just relax knowing that we are fully protected from prosecution under the Port's Exemptions. That's OK! We're willing to wait until our taxes are returned to us.

For your information, we have already asked Janet Reno and the IRS to respond to this same problem. While we are waiting for their answer, we want you to know that we are also waiting for a responsive reply from you. Thank you very much,

Sincerely yours,

Henry J. Frause

Henry J. Frause

Corps of Engrs/FAR 150 Wetlands #3/Transmittal Ltr

Henry J. Frause
411 S.W. 186th
Normandy Park, WA., 98166-3959

LETTER OF TRANSMITTAL

NOTICE

TO: The Administrators of FAR 150 Land
Subject: U.S. Army Corps of Engineers' WETLAND PERMIT.

Attention: Mayors and all Council members/City Managers/King Co. Council members and Highline School Dist. Superintendent and Board members.

REF.: Letter to U.S. Army Corps Engineer, Mr. Jonathan Freedman, Proj. Engr., dated April 1, 1998, relating to the Corp's FAR 150 Wetland Permit, Copy Attached.

To All Concerned,

It is extreamly important to clearly understand the difference between Constitutional Laws and Statutory By-Laws as it applies to FAR 150 Wetlands.

The Corp does not own the FAR 150 wetlands--the U.S. Government does.

The Corp does not have the authority to transfer Federal Public Property for Private Commercial use, from the Nation to the Port,....neither can the Corp remove the citizens from the protection of the United States. Any PERMIT contrary to the conditions set forth above is considered Illegal.

The Administrators of the FAR 150 Land Regulations shall be held responsible for this land transaction and the loss of our Constitution and Bill of Rights if the control of the FAR 150 wetlands are ratified by the Port and the Corp without the approval of the 10-Jurisdiction administrators who are LEGALLY responsible for FAR 150.

WHAT YOU SEE IS A BLANK CHECK. PLEASE DON'T SIGN IT!

Look closely at what might happen if such is the case. All the citizens under the authority of the Jurisdictional Administrators positively will be removed from this Nation and transferred to the Autocratic control of the Port; AND, ALL OF OUR DOCUMENTS REGISTERED IN THE FEDERAL REGISTER WILL BE ABNORMAL. The Port will protect no one. It can't--because it doesn't have a justice system to do so. Your names are at the top of the attached letter. You are already owned and operated by the Port.

We've all been operating in a vacuum ever since the "Airport Capacity Act of 1990 went into effect.

It is suggested that all addressees attend this important Public Hearing at 7:00p.m., Thursday, April 9 at the Performing Arts Center, Foster High School. Thank You.

Sincerely,

Henry J. Frause

Henry J. Frause

April 2, 1998

DOE-P-12

RECEIVED

APR 0 8 1998

DEPT OF ECOLOGY

April 6, 1998

Dept. of Ecology
NW Regional Office
3190 160 Ave SE
Bellevue, WA 98008

Dear Sir or Madame:

I am writing you to express my opposition to the Port of Seattle plan to fill in the wetlands around Miller and Des Moines Creeks for the proposed 3rd runway at Seatac Airport. As a Des Moines resident, I already have to deal with excessive aircraft noise and loss of property valuation, now the Port is going to destroy a unique recreational area and move it to Auburn, which will do Des Moines residents absolutely no good for local recreation.

Please do not allow this loss of endangered wetlands to occur, these resources are too valuable to lose in an urban area, especially for a project whose value is questionable at best.

Thank you,

Robert L. Durham
26031 10th Place South
Des Moines, WA 98198
(253) 839-6581

AR 037065

DOE-P-13

RECEIVED

APR 0 8 1998

DEPT OF ECOLOGY

Northwest Regional Office
Department of Ecology
3190 160th S.E.
Bellevue, WA. 98008

Re: SeaTac Wetlands,

April 7, 1998

I am writing to express my concern and objections to the idea of filling in the wetlands in the proposed third runway site. The wetlands serve as a filter system for the many wastes that are generated by not only the airport but also all the surrounding activities. This allows the Miller Creek & Des Moines Creek watersheds to support a healthy ecosystem. This is vital for the survival of all the species that utilize these water systems. 1

In addition, the concept of "mitigating" wetlands being constructed in the Auburn area to replace those being destroyed here is ludicrous. How do you give a frog, a bird, or migrating salmon, not to mention plants, a change of address. Once these areas and their attendant wildlife and plant life are destroyed they cannot just magically be recreated many miles away. In the Normandy Park area, for example, we have lost many acres of wetlands that were here just 20 years ago by allowing construction to fill them in. In the process we have lost the filtering system for our ground water as well as the habitat for many species of frogs, birds and plants. At the same time you lose a quality of life. 2

The impact of filling in these wetlands & channelizing of the impacted creeks has far reaching effects on the overall health of our neighborhoods. It is time to stop the wholesale destruction of our fragile environment. We have the opportunity to stop now and we should.

Carol L. Colburn

Carol L. Colburn
20325 2nd Ave. S.W.
Normandy Park, WA. 98166

DOE-P-14

Normandy Park, WA
8 April 1998

Washington State Department of Ecology
Permit and Coordination Unit Attn: Tom R. Luster
Post Office Box 47600
Olympia, Washington 98504-7001

Subject: Application for Permit Port of Seattle, Reference 96-4-02325

The Subject Permit proposes the destruction of wetlands and turns Miller and Des Moines Creeks into drainage ditches.

As a private individual I look to the Corps of Engineers and Department of Ecology to protect me and our environment from the disaster that is being proposed.

1 The proposed mitigation is not acceptable because the new wetlands will not be in the Miller or Des Moines Creek Watersheds. The permit should address keeping the wetlands within the existing Watersheds.

2 Miller Creek and its Aquatic life will be destroyed from silt coming from the rechanneled section and fill from the proposed 3rd runway . The current building of the north parking lot and silt flowing into Miller Creek shows what will happen when fill dirt is placed adjacent to the creek.

The same thing will happen to Des Moines creek as a result of borrowing and land filling.

3 There is no mitigation proposed for the destruction of both Miller and Des Moines Creeks.

The proposed permit should be denied based on the destruction of wetlands and creeks and inadequate mitigation.

Mayo Alberigi
16431 2nd Ave. SW
Normandy Park, WA 98166

APTH2

Washington State Department of Ecology
Permit and Coordination Unit
P O Box 47600
Olympia. Washington 98504-7001
ATTN: Tom R. Luster. Environmental Specialist

Lora Lake is a man-made lake that is spring fed and has an outflow to Miller Creek on the southeast corner. It also serves as a drainage area for a portion of east Burien and west SeaTac. King County developed a collection system for the surface water along Des Moines Memorial Drive. and the runoff water is drained into Lora Lake on the northwest corner. This runoff water is contained in a rock weir to catch the sediment. sand and other contaminants before the water goes into the lake itself. With the removal or filling of Lora Lake this natural filtration process will not occur. This runoff has to go somewhere. as does the spring water. Will this water flood the area in spite of the lake being filled in? Will the area remain a "wetland" with all the water that will be in the soil?

I have been a resident/owner of Lora Lake for 10 years. We were allowed to put copper sulfate in our lake to control algae. In order to do this. we had to have a licensed pesticide applicator and get permission from the Department of Ecology (DOE).

In 1992 DOE required soil samples from the lake in the area of pesticide application to test for copper levels. The test determined our copper level was too high so our request to apply chemicals was denied. Any further application meant that levels were in danger of killing fish. eliminating or reducing bottom dwelling creatures. and indirectly affecting ducks and geese that eat these fish and sea life.

Now the Port of Seattle (Port) wants to fill in the lake and mitigate the wetlands to an Auburn location. This seems inconsistent with what the DOE said to us. We couldn't apply chemicals because the fish and marine life would be in danger. yet the Port gets permission to fill in the lake and destroy the fish and marine life. Does the size of the entity asking permission mean that the bigger you are the more you can get away with?

The Port asserts that the birds are a safety hazard to jets taking off and landing. In this area there are birds of several types: Ducks. geese. blue herons. eagles. as well as robins. sparrows. starlings. etc. Filling in Lora Lake will not rid the area of these birds. On Port property further upstream on Miller Creek is a swampy area where the ducks and geese can and do nest. The eagles and herons nest in the tall trees on Port property. Where there are trees

there will be birds. Mitigation will not move these birds. The only way to rid the area of birds is to destroy the birds. How can DOE justify the killing of the birds and other wildlife, especially the eagles and herons? How many bird-damage incidents have occurred here? How many have occurred near airports with similar surroundings? Maybe the Port should reconsider its request for a third runway in this area if the issue of birds and safety is so strong.

Wetlands are a limited resource. DOE and EPA were created to help protect our environment including wetlands. We may be able to create new land area that has water and animal life inhabiting the new area. But if we do so while we eliminate other areas, we have gained nothing at the expense of lost lives of the wildlife in area destroyed. Lora Lake and the surrounding wetlands should be preserved for the sake of the environment, the fish, the marine life, the birds, and least of all for man to enjoy and appreciate.

Respectfully submitted.

Sherrill Miller 4/9/98

Sherrill Miller
15010 Des Moines Memorial Drive
SeaTac, Washington 98148-1122

Department of Ecology
Post Office Box 47600
Olympia, Washington 98504-7600

DOE-P-16

April 9, 1998

The U.S. Corps of Engineers should not issue a Section 404 permit to the Port of Seattle for proposed construction at Sea-Tac Airport.

The State Dept. of Ecology should not issue a Washington State Water Quality certification to the Port of Seattle.

Local laws prohibit filling in of wetlands without replacement in the same watershed.

When we first moved to the Highline area thirty-five years ago, people and nature lived fairly harmoniously together. I remember watching a family of ducks waddling from a lake above us down to Puget Sound, across roads, past homes where people were holding their dogs for the occasion. The mother duck started with nine ducklings and almost all of them made it to saltwater.

Nowadays we see far fewer ducks in the air and on the water, fewer foxes on land, fewer fish in the streams. Part of this loss is due to more people in the area, but much is also because of the destruction of wetlands.

The Port of Seattle's airport expansion project will further degrade our area if this Section 404 permit application is granted. We can look forward to the prospect of living in an asphalt desert, a jet ghetto far worse than that in Los Angeles today.

Everyone who lives in Seattle and loves this city should be-up in arms, not just those of us living south of Seattle. Unfortunately, powerful forces including the city's two major newspapers fail to inform citizens in Greenlake, Magnolia, West Seattle, Queen Anne, of what it will mean to the entire city for airport expansion to occur in such a heavily-populated area.

The decision of the Port of Seattle to give our wetlands to Auburn is a political decision and completely unfair to the Highline area people. We have aquifers that need to be recharged, surface drainage that needs to be purified, flooding that needs to controlled by means of wetlands. Wetlands destroyed are gone forever. Even replacement in the same watershed is a chancy business as any environmental scientist can tell you, but it should at least be considered.

Filling in 11.42 acres of wetlands, plus filling and relocating long stretches of Miller and DesMoines Creeks and their subsidiaries leaves little chance for endangered salmon and other aquatic life to survive. Piling 23 million or more cubic yards of dirt onto our fragile ecosystem is contrary to any concept of environmental justice or fairness.

We believe that our governmental agencies should be supporting healthy ecosystems, not just for plants and animals, but also for the quality of people's lives.

M. C. Nordhaus
11974 Marine View Dr. SW
Seattle, WA 98146

Molly Nordhaus
(206) 243-1338

DOE-P-17

Des Moines, WA 98198
April 10, 1998

Washington State Dept. of Ecology
P.O. Box 47600
Olympia, WA 98504-7600
Reference: Permit 401 - Port of Seattle

Dear Mr. Lusater

We strongly believe that the Port of Seattle should not have the right to destroy streams and wetlands. The Port has already caused environmental harm to our local streams and should not be allowed to cause further damage.

The Port wants to move wetlands so much that they have offered Auburn compensation. No such offer has ever been made to the local area where the most harm has been done and will continue if they are allowed to proceed with their plans. History proves the Port is not a good neighbor.

Just because the Port has powerful leadership they should not be exempt from common sense and the criteria of private developers and rules that everyone else must use.

Please do not issue Permit 401 to the Port for a Third Runway.

Thank you very much.

John - JoAnn Bolender

AR 037071

DOE-P-18

April 10,1998

Washington State Dept of Ecology
P.O.Box 47600
Olympia, Wa 98504-7600

Attention: Tom Luster

Re: WETLANDS. Strip Mining of Seattle/Highline Drinking Water Aquifer By The Port of Seattle At Sea-Tac Airport

Dear Mr. Luster
I am a private citizen. Early last year Citizens Against Sea-Tac Expansion (CASE) brought this problem to me because of my experience in wells and aquifers as a Commissioner for Highline Water District in addition to regional and national water issues. I brought the stripping problem to the attention of the Seattle Water Department (SWD) and requested a speaker to make a presentation to CASE. I never heard back. Now the SWD employees appear to be in an untenable position as newly elected Seattle Mayor Paul Schell was a prime sponsor of this airport project when he served as a Port Commissioner.

Historically the suburban cities, Seattle, King County Council and Legislature banded together to protect the Highline drinking water aquifer. In the 1980's the Council protested when METRO planned to drain the aquifer for a sewer pipe outfall. The Legislature later placed METRO under the County Council. Later the Seattle Council worked closely with the southend cities to close the Seattle Solid Waste Divisions' Midway landfills which were hazarding the aquifer. The Port appears to have the political power to circumvent environmental laws and the Clean Water Protection Act with impunity.

In the middle 1980s' due to a shortage in the basic water supply caused by a population explosion the Highline Water District redeveloped two water supply wells near the southend of Sea-Tac airport. This was a major undertaking as it was necessary to hammer drill through two aquifers into the third aquifer about 500 feet deep and a 100 feet below sea level. The two Highline wells supply 20% of the water to seven cities. The balance of Highlines water supply is purchased from the Seattle Water Department.
Based on the success of the Highline Wells the SWD drilled a production recharge well north of Sea-Tac airport into the aquifer. This recharge well is unique to the region for peak demand dry periods.

At present SWD has only five supply sources, The Cedar River, Tolt River, Highline Well field, interties and conservation. As you are aware the river supply sources are in constant jeopardy due to salmon problems, Indian treaties and Federal political policies.

The importance of the Highline aquifer to this regions water supply cannot be overstated. For example during the El Nino water shortage in the early 1990's the SWD lost the water behind the Cedar River dam. The water from the Highline wells working beyond their design limits in conjunction with interties with the Federal Way system supplied a substantial portion of south King County needs.

Seattle is unique with clean water available directly from rivers. The regions rivers are now peaked. The majority of the world relies on wells or on recycled river water passing from city to city.

The Highline aquifers is water bearing sand and gravel left by retreating glaciers between ice ages. It is recharged by rain seeping from the surface lakes, rivers and wetlands into the intermediate aquifers and following the physics rule, seeks its' own level through gaps and old well sites. Recharging is a slow process (and makes for dull reading). Contamination follows the seepage and follows the water or blocks the passage. Once the seepage reaches a water supply aquifer the water travels rather quickly to the well "draw down" which is the lowest point at the well head.

If serious contamination reaches a well head the alternatives are to shut down the well, invest in filters or re-drill to find potable water at a greater depth. The first and second Highline aquifers are already contaminated. The third aquifer is in use at about 100 feet below sea level. The fourth Highline aquifer is believed to be at least 600 feet below sea level. Well drilling is not an exact science. Only about one in ten wells at a known water location will produce sufficient potable water for municipal use. As you are aware Wells are a risk venture. Ten and 15 years ago the well using water districts banded together obtained a Federal Grant and formed Regional Water Associations and Ground Water Advisory committees. I was fortunate on occasion to Chair these committees. Tough regulations were developed to protect the aquifers. The regions cities complied even though it meant serious hardships to service stations and small business ventures. The Port never cooperated. Shortly after I retired the newspapers reported that the Port had opened the Highline intertie and for almost ten years had been secretly taking water without compensating the district. After costly litigation the Port paid a small settlement for the stolen water.

Now the problem is that the Port plans to fill in the Highline aquifer wetlands and strip all earth (borrow) down to the first aquifer. The planned one million cubic yards of borrow will be compressed 40% and used as a base for their runways. The volume of borrow is equivalent to 25% of Grand Coulee Dam. Another 11.4 million cubic yards of clean fill equivalent to several Dams will be trucked in locally and barged in from Vashon Island until the regional supply of fill is depleted

7-12-70

DOE-P-19

Dear Mr Lester:

This area of Loma Lake and Miller Creek is remembered by long time residents as being pristine - pioneered by farmers and logging operations. Miller Creek was fished by the locals. Trees in my yard must be 100 years old and still bear fruit.

The area has historical significance — Sunny dale School for instance. I regret the fact that the Seattle City Council went into partnership with the Port of Seattle - giving away the West Side to the Port to Acreage and to rezone for airport use. Therefore I submit my comments regarding the Ports proposal to destroy an ecosystem, never mind the Auburn trade

Sincerely

Donald Dutton

AR 037074

DOE-P-20

April 14, 1998

Department of Ecology
Olympia, Washington

To Whom I t May Concern:

After attending the hearing concerning the filling of wetlands and stream relocation because of 3rd runway construction at SeaTac Airport, we feel it is important to state our comments as well. We urge the Department of Ecology to deny the wetlands permit to the Port of Seattle. As others stated at the hearings: there are viable fish populations in these waters, recreating wetlands is not "natural", and the idea of the Port mitigating the folks in Auburn and leaving the residents near the airport "high and dry" is downright unfair!

We also question the "bird problem" given as a major reason for destroying our local wetlands and messing with our watersheds. Where are the SeaTac statistics to validate their concerns? Also has there been any study of the amphibian populations and the impact the Port's plan will have upon them?

As lifelong residents of this area, we have seen the destruction of an entire lake and wetland system when the 2nd runway was built. Please don't let the Port continue to damage and destroy the little bits of nature we have left.

Thank you,

Carlyn and Michael Roedell
P. O. Box 953
Seahurst, WA 98062

and the balance purchased in Canada and barged in from Vancouver Island. The compression of the fill will require a substantial portion of the Seattle Water Supply and at the same time quickly introduce tremendous amounts of silt and airport contamination to seep directly into the first aquifer and eventually and irreparably seal and damage the fragile Highline aquifer sometime early in the next century.

To offset criticism for filling in the Highline wetlands the Port appears to be playing games by substituting a worthless unused wetland over the White River aquifer in Auburn in place of the Highline aquifer. It appears as a trick to fool the public as well as circumventing environmental laws and the Clean Water Act. I do not know if they intend to keep the Auburn wetlands once the project is completed.

To protest the Ports' conduct, last year I filed a token election campaign for Port Commissioner to point out some of the Port foibles and to make the Port aware that there is was county wide voter opposition to their tactics. The voters agreed. I received far more votes then anticipated (180,000) and came within 2% of winning.

I request your assistance to protect the water supply aquifer.

Dan Caldwell
Commissioner(retired)
Highline Water
19547 Second Ave. S.
Des Moines, Wa 98148
(206) 824-0736
FAX 206 824-2174

DOE-P-21

15 April 1998

To: US Army Corps of Engineers
PO Box 3755
Seattle WA 98124-2255
Attn.: Regulatory Branch
Project manager for File Number 96-4-02325
Mr. Jonathan Freedman

cc: Permit Coordinator
Dept. of Ecology
P. O. Box 47703
Olympia, WA 98504-7703

Subject: Third Set of Comments on "Port of Seattle File Number 96-4-02325", Wetlands Permit, Notice of Application for Water Quality Certification and For Certification of Consistency with the Coastal Zone Management Program

These comments are in addition to those supplied at the April 9, 1996 hearing and those mailed in January of 1998. As indicated in an e-mail already sent to you, CASE would appreciate a technical forum. We can't mail our library and we would like to make sure we convey to you information on whatever subjects you have the greatest concerns. We believe that you will deny this permit if you have accurate data and realistic cost/benefit projections. Even if all the money in the FAA trust fund was diverted to this project, there still would not be enough money to fund it to completion.

This provides new barging capacity information, and summarizes the alternatives comparisons in a more succinct manner than my prior submittals.. In addition I would like to reiterate key points from the hearing:

1) The wildlife advisory relates to garbage landfills, not wetlands

2) Taxing across two live runways is far more dangerous than wetlands. The pilots association, ALPA, sent a petition earlier in the process that states they did not endorse the Third Runway due to its "marginal safety"

3) The required safety areas appear to be missing from the runway ends

4) The NPDES 24 hour max. rainfall design limit is too low

5) Allowing Third Runway construction prior to the approval of the AKART plan REQUIRED by the NPDES permit, may eliminate the possibility of implementing the DOE preferred pollution control processes such as de-icer pads.

6) The quantity, cost , transportation mode and schedule for fill are UNDEFINED Note, schedule impacts pollution calculations and contamination risk hazard analyses as well as cost/benefit conclusions.

Fill EIS Needed to Evaluate Feasibility of Third Runway

The amount of off-site fill has grown tremendously over time as potential on-site sources have been eliminated due to contamination, wetlands or deemed to be off-site. The Dept. of Natural Resources after the issuance of the SEIS revised their position on Des Moines sites 1 , 2 and 3 and now considers them to be off-site and subject to surface mining permit process. Sites 5 and 8 had already been eliminated. That leaves only site 4 which is right beside a creek. Logically, the use of on-site borrow source 4 should also be denied. **Why risk the creek for only 2.2 million cubic yards when you need more than 27 million cubic yards anyway?**

The real amount of fill needed is unknown for numerous reasons including (1) two undefined seismic anomalies must be removed, (2) some contaminated fill needs to be removed, (3) the unsafe retaining wall design may lead to moving highway 509 or putting a tunnel over the highway , (4) there are no provisions for pollution mitigation such as de-icers pads even thought he DOE has stated they are the best way to control de-icers and experiments to vacuum at Sea-Tac have failed. (5) there appears to be no provisions for the FAA REQUIRED safety areas, and (6) according to Univ. of Florida the EIS calculations are incorrect.

If trucks continue to haul at the current airport construction rate it will take over 50 years to complete the construction project. Increasing over the current rate is unrealistic considering traffic volumes, the number of truck accidents and high particulate volumes to date. The "22 week" runway safety area construction took over a year since they were only able haul 350,000 cubic yards instead of the 450,000 in 1996 as planned. **At the 1996 rate it would take over 77 years to haul 27 million cubic yards.** In 1997 they hauled more than 350,000 cubic yards but hauled to multiple locations during the wet period creating health and environmental hazards significantly greater than the year before.

Barging has been proposed instead. However, as the chart shows on the next page this will require operating Maury Island at about 540,000 times the normal mining rate of 10,000 cubic yards a year. It will require barging at about 5 times their previous all time record for a period of about 5 years assuming they haul 24 hours a day year round. If the FEIS 270 day mitigation limit of hauling in dry weather is imposed as well, it will take **NINE years assuming round the clock barging, six days a week, 25 tons per day**. Twenty-five tons per day will require three to four barges per day (see references listed under chart on next page).

Table 1: Barging Rate Does Not Support Current Schedules

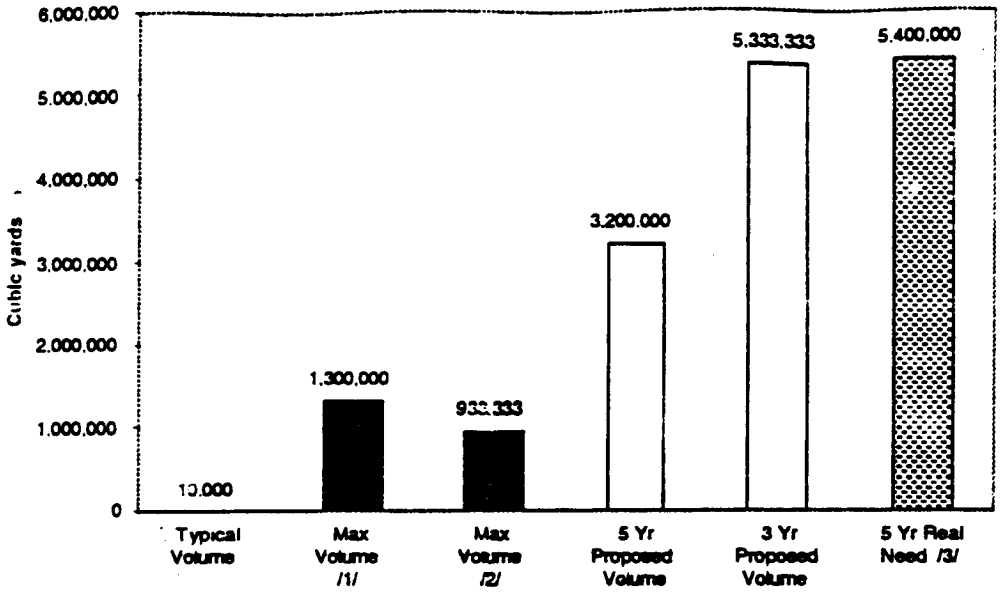
Quantity /3/	Barge Rate	Years to Complete
27 MCY	Maximum Pre-Shoreline Act Barge Rate /4/	21
27 MCY	Maximum Post Shoreline Act Barge Rate (1978) /4/	29
27 MCY	6 days per week, 270 days dry weather period per FEIS, proposed record breaking 25 tons per day	9

/3/ Quantity needed in mining correspondence (ref. /4/) indicates only 24 tons needed. 24 tons equates to 16 million cubic yards (myc) assuming 3000 lbs per cubic yard. Quantity for total Project now exceeds 27 million cubic yards

/4/ Calculations based on data from Hillis, Clark, Martin & Peterson," Re:Lone Star Northwest's Sand and Gravel Quarry, Maury Island", To Mark Mitchell, dated 24 February 1998 and Hillis, Clark, Martin & Peterson," Lone Star Northwest's Sand and Gravel Quarry, Maury Island", To Fred White, dated 19 February 1998. Also assumed pit run to be 3000 lbs per cubic foot.

Where will they unload the fill? Then, how will it get to the airport? Will wetlands be impacted by conveyer belts or new piers? Whether the foreign owned company can get permission to mine arsenic laced fill jeopardizing Maury Island aquifer, Highline Aquifer and possibly the Vashon Island aquifer also needs to be established to determine feasibility.

Muary Island Annual Mining Volumes (cubic yards) /4/



/1/ Max volume prior to Shoreline Act (see /4/)
/2/ Max volume after the Shoreline Act (see /4/, 1978 Terminal/Pier 37)
/3/ Quantity needed in mining correspondence (ref. /4/) indicates only 24 tons needed. Real quantity for Project exceeds 27 million cubic yards
/4/ Calculations based on data from Hillis, Clark, Martin & Peterson," Re:Lone Star Northwest's Sand and Gravel Quarry, Maury Island", To Mark Mitchell, dated 24 February 1998 and Hillis, Clark, Martin & Peterson," Lone Star Northwest's Sand and Gravel Quarry, Maury Island", To Fred White, dated 19 February 1998. Also assumed pit run to be 3000 lbs per cubic foot.

Recent bids on Phase 1 of the Project came in 23 % to 48 % higher than the Engineer's recent estimate, another indicator that schedules and costs are underestimated. Considering all the cost and availability fill issues that have arisen subsequent to the release of the SEIS, other alternatives need to be seriously considered.

The following table compares alternatives using cost/benefit factors that need to be considered in addition to the number of acres of wetlands impacted. I believe the risk to the world's food chain is greatest when destroying Sea-Tac's wetlands due to their close proximity to Puget Sound and their already marginal functionality.

Although new technology at Sea-Tac can better fill the capacity gap than a Third Runway from a cost/benefit point of view, neither can provide the level of capacity increase desirable for the region.

Alternative Comparison - See Legend next page

Trade Factors	Alternatives							Comments on A - Proposed Runway over 12 St.
	A	B	C	D	E	F	G	
Aircraft taxi accident rate	R	G	R	G	G	G	G	Over 21% increase per FEIS (Greater if use realistic number of operations)
Air space accident rate	R	Y	R	G	G	G	G	Uses same air space as existing Sea-Tac runways & Boeing Field
Ability to meet 2010 capacity needs	R	R	R	G	G	G	G	Exceeds Severely Congested* per FAA in SEIS
Ability to meet 2020 capacity needs	R	R	R	G	G	Y	Y	Exceeds theoretical capacity before 2020
Capacity impacts on nearby airports	R	R	R	G	G	G	G	Reduces Boeing Field per FAA in FEIS
Cost per passenger	R	G	Y	G	G	G	G	World Record Cost
Cost per pound cargo	R	G	Y	G	G	G	G	World Record Cost
Long enough for big jets to land	R	G	R	G	G	G	G	8500 ft is so short they must be planning an extension already
Drinking water risk	R	Y	Y	?	?	?	?	Seattle and Highline's drinking water is underneath airport. Risk of excavating seismic anomalies not addressed
Salt Marsh Pollution Risk	R	Y	Y	G	G	G	G	North Parking Lot lack of sedimentation controls already damaged Miller Creek which empties out to a marsh
Puget Sound Pollution Risk	R	Y	Y	G	G	G	G	Glycols dumped directly via sewer pipe. Airport less than 10,000 feet to Sound
Landslide Hazard Risk	R	G	G	G	G	G	G	Retaining wall too steep so slide is inevitable - Like 1st Ave that sunk in 1997
Density of Population impacted	R	R	R	G	G	Y	Y	Most densely populated area in most dense WA county

Legend -
R - Red - Severe problem
Y - Concern needs to be evaluated further or project requires more definition to determine if G or Y
G - Far superior to Alternative A
? - Not evaluated by author

Alternatives Code
A - Current Plan, Runway almost 200 feet above existing ground
B - Existing runways with technology like San Francisco and Charlotte, or new technology slated for full implementation, etc.
C- Runway on existing property with technology
D- New Tenino airport
E- New Tenino Airport with light rail
F- Combination of existing airports such as Moses Lake, Paine Field etc.
G - Combination of light rail and existing airports

* Airports should not exceed practical capacity. The new runway exceeds "practical capacity" before it opens using FAA projections. When airports reach "severely congested", airlines use other airports due to unacceptable delay times. Theoretical capacity is normally economically unacceptable. See my SEIS comments for references.

Misc. New Input - Supplements prior submittals
Summer of 1996 Angle Lake was lower than the residents have ever seen it and feared losing it. Was this related to the new fill construction project at the south end of the airport (350,000 cubic yards)?

While at Miller Creek between 8 PM and 9 PM on 11 April 1998, there was visible pollution on the surface. Foam like rings ranging from the 1/8 inch diameter to about 2 inches diameter were visible floating down stream to the Sound. By rocks it had accumulated into piles at least 1 inch by 14 inches wide. The creek was covered with these floating circles that were obvious in the moonlight. When we swished a stick in the creek a somewhat fluorescent foam head appeared in the wake of the stick. When the stick was swished under the water to minimize the wake effect, the same almost fluorescent foam appeared. The magnitude of the light colored wake depended on

creek location and depth. The circles dissipated when touched by hand. It was a cold night and deicing operations would be required at the airport that night.

The 1997 water rate hike was attributed in part to the need to find more sources of water. While New York City is buying land in another part of their state for water, and Maryland is paying their farmers to leave their wetlands as pollution buffers, the Port of Seattle plans to destroy our pollution buffer and endanger the water underneath Sea-Tac airport (the aquifer). Seattle Water Dept. uses this water too, not just Highline. A Dept. of Ecology document admits to contamination of the uppermost aquifer. Some residents already complain of diarrhea that correlates with pollution events at the airport and will not drink beverages made with "airport" tap water.

This wetland mitigation of the Sea-Tac airport issue made front page news in the Sierra Club Cascade Sound April/May 1998 newsletter. It has been identified as one of the key areas for the South King County group to focus their efforts. The Sierra Club issued a resolution against the Third Runway a few years ago.

The expansion of Sea-Tac Airport is inconsistent with how other airports in heavily populated areas handle capacity increases and is inconsistent with preserving drinking water.

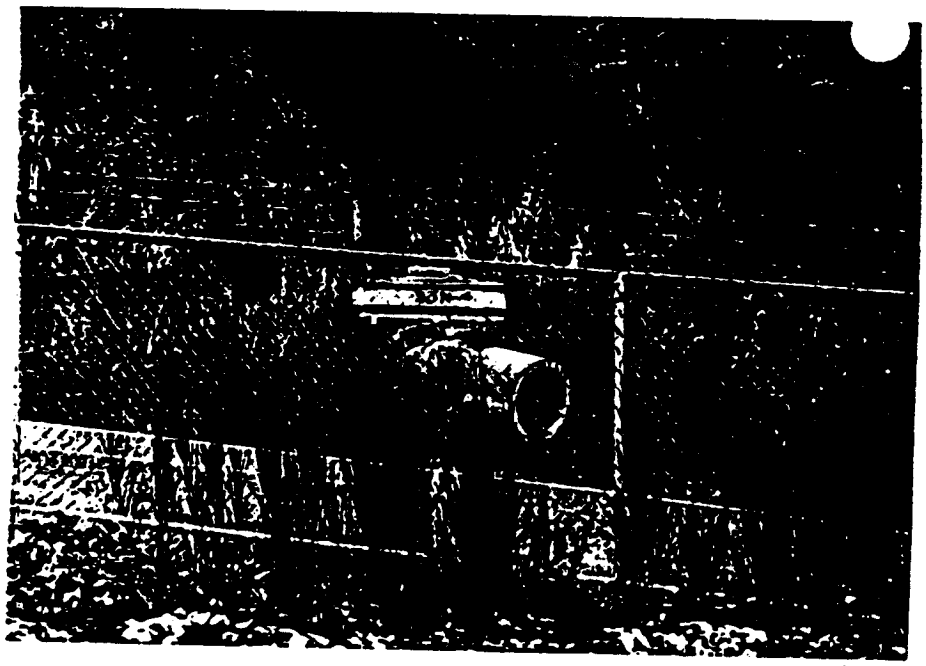
Thank you for this opportunity to comment. Please contact me if you want additional information. I am looking forward to the technical meeting COL Rigsby agreed to have the night of the April 9 hearing.

A Brown

A. Brown
239 SW 189 Pl
Seattle, WA 98166
e-mail: brownadb@gte.net
pager (206)654-1533

Please also see "Addendum to Third Set of Comments"

SDN-2 JUNE 1997



Fall 1997 Renumbered
Now SDN-4

Law Offices

• HILLIS CLARK MARTIN & PETERSON •

MEMORANDUM

Date: February 19, 1998

To: Fred White

From: Stephen H. Roos

Subject: Lone Star Northwest's Sand and Gravel Quarry, Maury Island

Below is a summary of the issues discussed at Lone Star's pre-application meeting on January 6, 1998.

A. History of Site

1. Zoning and Permitting

The site is designated as a Mining area under King County's Comprehensive Plan Land Use Map, adopted pursuant to the Growth Management Act (GMA). The zoning designation is Mineral Resources. Lone Star's current activities are covered by both a grading permit from the County and a Reclamation Permit from DNR.

2. Previous Mining Activities

Mining has occurred at the site since the early 1900's. A dock and a conveyor system for transporting material from the mine to barges were constructed about 30 years ago, prior to the enactment of the Shoreline Management Act. The dock and the conveyor system are used for maior fill jobs requiring the use of barges. The Port of Seattle has been the biggest customer, and the level of activity at the site is generally linked to the Port's activities. The last major project at the site was Pier 37 in 1978, which required approximately 1.4 million tons of sand and gravel. Local operators have also exported mined materials by truck for local use.

B. Proposed Activities

1. Description of Activities

11-10-11

Lone Star intends to continue to mine, process and barge sand and gravel as is presently done and has been done in the past. As in the past, the volume of excavation

depends entirely on market conditions. If Lone Star obtains the fill job for the Port's third runway project, the company will mine approximately 25,000 tons per day for approximately three years. This will entail loading three to four 8,000-ton barges per day. (Only one barge can be tied up to the dock at any given time.) The load-out rate is 4,000 tons per hour; approximately eight hours of loading would occur each day. Mining activity could occur up to 24 hours per day. Portable screeners or crushers might also be used at the site. Mining activities will not require the use of any groundwater.

The only work to the dock and the conveyor system will be minor repair and replacement, e.g., repair some mechanical and electrical parts, and to replace those parts that Lone Star stores in order to prevent theft or damage--e.g., idlers and conveyor belts.

Lone Star is not proposing to do any mining within the shoreline. The pre-application maps have been corrected to show that there will not be mining in the shoreline.

2. Relationship between Current Proposal and Third Runway

The company wants to be in a position to bid on fill materials required for the Port of Seattle's third runway project at Sea-Tac Airport. The third runway will require a total of approximately 24 million tons of material over a period of three to five years. One million cubic yards will be bid in three months; the remainder of the project will be bid in 12-14 months. The Maury Island material is particularly well-suited to be used as fill material.

Even without the third runway, Lone Star would be reviewing its current permits in order to ensure that, if required by market conditions, the company could annually remove up to several million tons of material from the site.

C. SEPA Review

In a meeting prior to the pre-application meeting, the County advised Lone Star to submit a SEPA checklist in connection with this grading permit renewal. In evaluating the SEPA checklist, the County will also conduct periodic review pursuant to KCC 21A.22.050.

Lone Star has retained Huckell/Weinman Associates to prepare an expanded environmental checklist. Sub-consultants include Associated Earth Sciences, Inc. (groundwater analysis), TDA, Inc. (traffic), and McCulley, Frick & Gilman, Inc. (noise and air quality). These consultants are all experienced in analyzing Lone Star's other surface mining operations. Some of them participated in Lone Star's Dupont project, which currently excavates several million tons of sand and gravel each year. Because Dupont is constructed and operating, Lone Star has been able to monitor actual impacts

of the barge loading operation and found that the impacts are at or below the levels predicted by the consultants. Based on this experience, Lone Star expects no significant adverse impacts that cannot be mitigated, in which case no environmental impact statement would be required.

In preparing the checklist, Lone Star will use third runway volumes as a worst case scenario. If an environmental impact statement is required, it is likely that Lone Star will not be able to secure its permits in time to bid the third runway fill job.

D. Required Permits

The following permits were discussed at the pre-application meeting:

1. Grading Permit

Lone Star annually renews its current grading permit.

2. DNR Surface Mining Permit

Lone Star will update its Reclamation Plan with DNR. The plan was last amended in 1991. Drawings have been submitted to Dave Pierce of DNR for conceptual approval.

3. National Pollutant Discharge Elimination System (NPDES) Permit

Lone Star's current NPDES permit requires amendment if materials are conveyed over water and the conveyor is not enclosed.

4. Hydraulic Project Approval (HPA)

Lone Star does not expect to perform any work within the water. If it does, Hydraulic Project Approval will be required.

impact. New particulate laws?

5. Puget Sound Air Pollution Control Agency (PSAPCA)

A PSAPCA permit is required for dust emissions.

6. Shoreline Permit

As noted above, the dock and the conveyor system were constructed prior to the Shoreline Management Act. The dock and the conveyor system, which have been regularly maintained, have been used for large fill jobs--e.g., Pier 37--since the SMA was enacted. The County has previously decided that a shoreline permit was not necessary. The current proposal requires no mining or other development in the shoreline. Lone Star

believes no shoreline permit is now required and will provide a written summary of its analysis. Mark Mitchell and Department of Ecology representatives will review Lone Star's project description and analysis of the shoreline issue, and also conduct a site visit.

D. Specific Environmental Issues

1) Groundwater is one issue that the Lone Star expects to analyze with particular care. The County agreed that this is a key concern.

2) The County's drainage representative indicated that he did not anticipate any particular drainage problems related to the project.

3) The County agreed with Lone Star's environmental consultant that a qualitative report for air quality will be acceptable, as well as a "level one" ground transportation analysis.

4) The County asked Lone Star to address the issue of heavy metals and the impacts from stripping of topsoil.

E. Community Relations

To date, Lone Star has conducted two meetings with residents of Vashon/Maury Island. The first meeting, held on December 3rd, was with the Sandy Shores and Gold Beach community associations. The second meeting was with the Vashon Community Council on December 15. The environmental checklist will address the concerns raised at these meetings. One primary concern was access to the beach. Lone Star will attempt to allow continued access to the extent that it is consistent with required safety measures.

The County scheduled a meeting with the Vashon Community Council for February 16.

F. Schedule for Processing of Permits

Lone Star anticipates submitting its permit applications and environmental checklist in March. In the meantime, the County will conduct a site visit.

When Lone Star is ready to submit its applications and checklist, the County will conduct another pre-application meeting to evaluate the adequacy of the studies. Following submittal of application materials, and a determination of completeness by the County, the County will publish a notice of application. It will then make a SEPA threshold determination, after which it will process the permit applications in accordance with the process described in the King County Code.

Lone Star expressed its concern that potential competitors be held to the same environmental standards and permit requirements as Lone Star.

RECD 3/3 SH01

Law Offices

HILLIS CLARK MARTIN & PETERSON

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RECEIVED
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K.C.D.E.S.

February 24, 1998

Mr. Mark Mitchell
King County Department of Development
and Environmental Services
900 Oakesdale Avenue S.W.
Renton, WA 98055-1219

Re: *Lone Star Northwest's Sand and Gravel Quarry, Maury Island*

Dear Mark:

At the pre-application meeting with Lone Star Northwest on January 6, 1998, we asked the County to verify our understanding that a shoreline permit is not required for Lone Star's continued use of the conveyor loading dock at its site on Maury Island. You suggested that we set forth our analysis in a letter so that the County and the Department of Ecology can review our conclusions and respond prior to submittal of an environmental checklist.

The County has concluded for over 25 years that the use of the conveyor loading dock to load barges with sand and gravel is a pre-existing use that is grandfathered under the Shoreline Management Act. As detailed in this letter, the County's planning and zoning designations for the site, the history of previous mining activities, and relevant law lead us to conclude that there is no basis for the County now to alter its prior determinations that a shoreline permit is not required.

I. BACKGROUND

Our review of the background of the Maury Island site discloses the following critical pieces of background information: 1) the land adjacent to the dock is zoned and designated for mining; 2) all necessary permits for mining and use of the dock for barge loading have been obtained and consistently updated; 3) the dock has been used to transport materials whenever market demand required large quantities of fill material; and 4) the County has allowed barge loading from the dock for over 25 years without requiring a shoreline permit. It is useful to examine each of these points in some detail.

A. DESIGNATIONS UNDER COMPREHENSIVE PLAN AND ZONING CODE

Lone Star's 250-acre site, located within a shoreline conservancy area, is both zoned for mining and designated under the King County Comprehensive Plan as a Mineral Resource Area. The Comprehensive Plan's mining designation is significant. The designation is reserved for sites in King County where "long-term mining operations" can continue "with minimal conflicts with adjacent uses and continued environmental protection." *See* 1994 King County Comprehensive Plan, at 108. Thus, the County has already determined that Lone Star's property is an appropriate location for sand and gravel mining. Significantly, this determination was made *after* the dock had been constructed and when it was evident that the dock's sole purpose was to transport mined materials. By designating the land immediately adjacent to the dock as appropriate for mining, the County has recognized that the owners will use the dock for barge loading of the sand and gravel taken from the quarry. Use of the dock is also consistent with the County's Shoreline Management Master Program, which allows mining uses within conservancy areas. *See* Master Program, at 20.

B. PERMIT HISTORY

Lone Star and the site's predecessor owners have obtained and consistently renewed all permits required for mining and exporting materials from the site. A permit from the Army Corps of Engineers was obtained in 1968 to construct the dock and conveyor system. In 1971, Lone Star's predecessor, Pioneer Sand & Gravel Company ("Pioneer") obtained a Surface Mining Reclamation Permit (#70-010256) from the Department of Natural Resources (DNR), and a clearing and grading permit (#1128) from King County. Both the reclamation and grading permits have been kept current since 1971.

C. PREVIOUS USE OF DOCK

The intensity of mining activity at the site has varied dramatically, depending on market demands. Because the conveyor loading dock is only used during periods of relatively high-volume mining, the extent of dock use has varied. Between 1968 and 1972, fill material from the site was purchased by the Port of Seattle for Piers 25, 86, 115, and others, resulting in annual volumes as high as 1.3 million yards. *See* 1977 Environmental Checklist. The dock was used more or less continuously during this period. Between 1972 and 1975, there appears to have been no mining or barge-loading activity. In 1978, approximately 1.4 million tons were excavated and sold to the Port of Seattle for Terminal 37, again requiring use of the dock. The Terminal 37 job appears to have been the last excavation to require barge-loading. Since 1978,

annual volumes set forth in the grading permit have been approximately 10,000 cubic yards.[1] Such volumes do not require use of barges.

We note that it is not unusual for mining levels to vary as they have at Maury Island. The King County Comprehensive Plan recognizes that "most sand and gravel resources are mined in phases in order to extract only that material a mine owner/operator can sell in the current market," and that, as a result, "often specific mines will be active for several years, then inactive for long periods." *See* 1994 King County Comprehensive Plan, at 110. In reviewing Lone Star's activities at Maury Island, the County has always understood that, as with other sand and gravel mines, the intensity of mining and dock use would fluctuate. Pioneer and Lone Star have consistently informed the County that levels of extraction depend entirely on market conditions, and the County's determination of nonsignificance in 1977 was based on a checklist which stated that "the rate of mining depends entirely on the market conditions and demand for this material for water delivery." *See* 1977 Environmental Checklist.

Recognizing that market conditions might quickly require high-volume mining activities, Lone Star has regularly repaired and maintained the dock. *See* Internal Memorandum of November 7, 1995 from Fred White. Lone Star also has regularly renewed its Aquatic Lands Lease with the Department of Natural Resources for the express purpose of operating and maintaining a "conveyor loading dock." The most recent lease renewal, granted in 1988 for a period of twelve years, states that the "permitted use" of the Lease is to "operat[e] and maintain[] a conveyor loading dock." A "plan of operations" included as an exhibit to the Lease states that "this Lease covers an area which includes a *permitted* dock and dolphins used for the shipment of sand and gravel."

D. Previous Discussions Regarding Shoreline Permit

The dock was constructed in 1968, prior to enactment of the Shoreline Management Act, which did not become effective until June 1, 1971. The Act contains a grandfathering provision that explicitly authorizes pre-existing docks to continue without a shoreline permit. RCW 90.58.270(1). In accordance with this provision, the County has allowed Lone Star to continue using the dock since 1971 without obtaining a shoreline permit.

---

[1] *See* Memo of Fred White to M. Carey and R. Sandin, Nov. 7, 1995 ("Annual [grading permit] renewal volumes have averaged around 10,000 cubic yards"). White's statement is supported by various permit renewals in the file.

The ability to continue dock operations without a permit was directly discussed in 1974, when Lone Star applied for its annual grading permit renewal. Lone Star explained in an "Environmental Assessment Worksheet" the reasons it was not seeking a shoreline permit:

> [T]here is no substantial development occurring within 200' of the high water line. Mining activity is and will be more than 200' from the high water line until some long time future year when site grading is done in developing final contours near the shoreline. . . . A shoreline permit is not needed until this substantial development occurs.
>
> Until such time of final grading, our activities within 200' of the high water line are operating and maintaining an existing dock and conveyor system used for loading our materials and the siting of temporary trailers and sheds used to store parts and operating supplies when mining activities are being conducted.

Along with the Environmental Assessment Worksheet, Lone Star's Operations Manager, Eugene Dale, submitted a letter to the Land Use Management Division of the King County Department of Community Development, which further explained that:

> The principal basis for [the company's decision not to apply for a shoreline permit] is that no substantial development is occurring within the 200-foot distance from the high water line. Our dock and loadout conveyor system have been in existence since 1968, and the activities in the shoreline area consist of the temporary location of tool sheds, office shed and parts trailers, all of which are either wheel-mounted or on skids to be taken in and out as may be required by the operation. The mining activity is being conducted [ ] behind the 200-foot line.

Four days after receiving the letter and the worksheet, the director of the Land Use Management Division, Edward Sand, confirmed that "[t]he continuation of quarrying activity, as described in [the above-quoted letter], will not require a Shoreline Management permit."

In 1977, as part of another grading permit renewal, Lone Star Industries submitted another environmental checklist. In this checklist, Lone Star reiterated that "the only activity in the shoreline area is the loading of barges over the existing dock by means of belt conveyors." The County issued another determination of non-significance without requiring Lone Star to obtain a substantial shoreline permit.

The County next considered use of the dock in 1992 when Lone Star applied for a shoreline exemption for repair work to the dock and conveyor system. In approving the exemption (No. L92SH133), the County gave no indication that Lone Star's continued use of the dock and conveyor system would require any kind of shoreline permit.

The County's most recent review of the need for a permit occurred in 1995, when Fred White of DDES reviewed the County's file to determine whether material could be barged from the Maury Island site without a shoreline permit. In an internal memo dated November 7, 1995, Mr. White concluded that renewed barge activity did not require a shoreline permit:

> While no material has been removed by barge for several years (late '70s, early '80s), [Lone Star] has performed maintenance on the loadout dock and has kept the facility in good repair . . . [Lone Star] has renewed its [grading] permit for 24 years, partially, at least, based upon the premise that material can be barged from the site under the existing [grading] permit. They have maintained the dock. We did not require the substantial shoreline development permit after receipt of the correspondence in 1974, and my review of the project would not support requiring one now.

In summary, ever since the SMA was passed in 1971, the County has allowed Lone Star and the predecessor owners to use the conveyor loading dock without a shoreline permit. As explained below, nothing in Lone Star's current plans for the dock requires the County to alter its conclusion that the dock is a grandfathered development and use.

II. PROPOSED ACTIVITIES

As stated in the project description submitted with the request for a pre-application meeting, Lone Star is not proposing to conduct *any* mining within the shoreline of Maury Island. Lone Star will continue to use the existing dock and conveyor system to load barges with sand and gravel. The only work that will be done to the conveyor system will be replacement of some electrical and mechanical components, conveyor belts, and conveyor idlers. Lone Star temporarily removed these parts from the system in order to prevent theft or damage. As for the dock structure, further repairs do not appear to be needed.

III. LEGAL ANALYSIS

The activities under review do not trigger the need for a shoreline permit. The Shoreline Management Act ("SMA") authorizes pre-existing structures, such as Lone Star's dock, to continue being used without a shoreline permit. Moreover, the proposed repairs to the conveyor system constitute "normal maintenance and repair" and are exempt from the permit requirements

of the SMA. Finally, no permit is required to place barges at the dock because vessels are also exempt from the SMA.

1. Pre-existing Use

The SMA allows docks and improvements within the navigable waters prior to December 4, 1969 to be retained and maintained without a shoreline permit. The statute explicitly gives the State's authorization and consent to *any* "structures, improvements, *docks*, fills, or development placed in navigable waters prior to December 4, 1969." RCW 90.58.270(1). Since the conveyor loading dock was in existence prior to December 4, 1969, the County should continue to allow Lone Star to operate the dock without obtaining a permit.

DOE's regulations confirm that the SMA's permit system does not apply to pre-existing uses at Maury Island. DOE's narrow exceptions to the SMA's general grandfathering provision do not apply to Lone Star's activities. *See* WAC 173-27-070. First, the activity was not unlawful prior to the effective date of the act (June 1, 1971). Second, there was no unreasonable period of dormancy between the project's inception in 1968 and June 1, 1971. Third, the conveyor loading dock was completed by June 1, 1973. Fourth, the location of the dock has not changed to a different lake, river or tributary. And finally, the dock is not moving into a phase of substantial development that was not contemplated at the time of construction; barge-loading was the express purpose for constructing the dock, and the only additional work will be normal maintenance and repair, which does not constitute substantial development.

The intermittent use of the dock does not eliminate its grandfathered status. Such status is only lost if Lone Star demonstrates "an intent to abandon [the use] and an overt act or failure to act which carrie[s] the implication of abandonment." *See Andrew v. King County*, 21 Wn. App. 566, 572, 586 P.2d 509 (1978). Lone Star has never had such intent. As evidenced by the regular maintenance and repair of the dock, as well as the renewals of the Aquatic Lands Lease with DNR, Lone Star has done everything necessary to ensure that the dock was ready for use whenever market conditions required high-volume mining.

2. Repair and Maintenance

A shoreline permit is not required for "normal maintenance or repair of existing structures or developments." RCW 90.58.030(3)(e). The dock has been maintained under this provision. The repair work for the proposed conveyor system also fits within this definition.

3. Vessels

Finally, a shoreline permit is not required for the placement of barges at the dock. Recognizing the importance of vessels for purposes of commerce and navigation, DOE has specifically excluded navigational vessels, including barges, from the definition of "structure" or "development." *See* WAC 173-27-030(15). Since barges do not constitute "development," no permit is required for them.

IV. CONCLUSION

I hope this explains why we concluded that a shoreline permit is not required for the activities on Maury Island. We would appreciate confirmation as soon as possible.

Very truly yours,

Stephen H. Roos

cc: Mr. Ron Summers (via facsimile)
Mr. Allen Hamblen (via facsimile)

#78074 10552-69 1_8Q031.DOC -

Subject: Wetlands Technical Forum
Date: Sat, 11 Apr 1998 07:28:21 +0000
From: "Arlene, Derek, Joe Brown" <brownadb@gte.net>
To: "Johnathan R. Freedman" <Johnathan.R.Freedman@NWS01.usace.army.mil>
CC: Debi Wagnor <debi@oz.net>, Col Mike Rigsby <Mike.Rigsby.COL@NWS01.usace.army.mil>, Larry Candi Corvari <corvari@ricochet.net>, Tom Mueller <Thomas.F.Mueller@NWS01.usace.army.mil>, Al Furney <rcaa@blaze.accessone.com>

Thank you for arranging the 4 hour April 9 public hearing regarding the Sea-Tac wetlands.

The Col suggested I contact you regarding setting up a time for several key CASE/RCAA members to meet with the Col and Corp staff to discuss our data. The Port of Seattle, DOE and EPA may want to send a representative also.

Could you please send me a couple of potential time slots available so we can get back to you with a firm date? It would be best if we could meet before before the public comment session ends.

April 27 I am tied up with a government Integrated Baseline Review audit so I'd appreciate it greatly if you would not schedule this meeting during business hours on that day.

I've copied this e-mail to the RCAA President Al Furney, Citizens Aviation Watch VP Debi Wagner, and Co-Presidents of CASE, Larry and Candi Corvari. Attached you will find the web addresses for some organizations are concerned with this issue.

Thank you again,
Arlene Brown
brownadb@gte.net
Pager (206)654-1533 Home (206)431-8693

CASE
19900 Fourth Avenue SW
Normandy Park, Washington 98166
Office (206)824-3120

US-CAW

Attached URL's start here

U.S.-Citizens Aviation Watch

A national organization comprised of local airport/noise/environmental groups

"Protecting the public's health, environment, property and promoting safety."

only first page included with comments to Corp dated 4/15/98

DOE-P-22

To : US Army Corps of Engineers
PO Box 3755
Seattle WA 98124-2255
Attn.: Regulatory Branch
Project manager for File Number 96-4-02325
Mr. Jonathan Freedman

cc : Permit Coordinator
Dept. of Ecology
P. O. Box 47703
Olympia, WA 98504-7703

Subject : Addendum to Third Set of Comments on "Port of Seattle File Number 96-4-02325", Wetlands Permit, Notice of Application for Water Quality Certification and For Certification of Consistency with the Coastal Zone Management Program

Reports I'd been expecting arrived just when I was about to mail my comments dated 15 April 1998 so I delayed to add this. These comments are also in addition to those supplied at the April 9, 1996 hearing and those mailed in January of 1998.

Based on reviewing the reports sent to me by the U.S. Geological Services (see references (a1) through (a6)) and those mentioned in my prior comments, **a DETAILED HYDROLOGY STUDY is needed prior to issuing a Water Quality Certificate or a wetlands permit. No additional stockpiling of Third Runway fill should be allowed on airport property until the environmental risks are assessed. This study should involve oversight by the US Geological Survey hydrology staff due to its developmental nature and far reaching consequences.**

Substantive Hydrology Studies Non-Existent

Substantive hydrology studies do not exist that would answer the question as to the risks of dumping over 80 billion pounds of fill on top of the existing aquifers and underground piping. Even the report whose title includes "Southwestern King County" contains very little information on wells in the impacted area. It was not a site specific study, nor was it intended to be. Data in numerous reports

needs to be combined into one report that uses the same set of units. Then a test program needs to be developed and executed to fill in the most significant data gaps. The proposed NPDES pollution studies are inadequate.

The EIS focuses on till layers functioning as boundaries rather than conductivities within aquifers. Within aquifers things travel over five times faster than in till (see Table 2 in ref. (a4)). Within the lenses in till, contamination also travels much faster. Even the number of aquifers and drinking water wells impacted is underestimated in the EIS.

Contamination Risks Underestimated

The risks of water contamination are underestimated in the project's Environmental Impact Statement. Data from a variety of reports indicate that the aquifers under Sea-Tac are vital to the health of the Des Moines Drift Plain and the area's drinking water.

Investigations Report 92-4098 indicates there are probably more aquifers under the Sea-Tac Airport than the EIS addresses.

Investigations Report 92-4098 (ref. (a6)) indicates that, in addition to the known aquifers, undifferentiated material above the bedrock exists that could contain one or more aquifers. A different Report, No 28 (ref. (a4)) shows in Plate 2 that some cities such as Federal Way have drilled into that undefined region and established the water level. I believe Federal Way now draws drinking water from that depth but there was insufficient time to confirm a retired Water Commissioner's comments on that subject. This same unconfined area is also shown under Vashon Island.

Federal Way water is at risk too but not mentioned in the EIS

- Aquifer (Vashon Advance Outwash) under Sea-Tac Airport discharges to Federal Way Hylebos Creek (ref. (a4) Luzier, Fig 20, pgs 40-42)
- Federal Way wells tap into an aquifer which extends under the Sea-Tac airport.

Aquifers under the airport discharge to the west directly into Puget Sound and discharge to the east to the Duwamish Valley (alluvial fill) (ref. (a4) Luzier, Fig 20, pgs 40-42)

Angle Lake is connected to the aquifer (ref. (a3), (a4) or (a5)) - sorry can't remember which report, the problem with reading four reports in a weekend when camping without a computer)

These aquifers are too important to limit assessments to 10 years as the EIS did, particularly, when they are based on the assumption that till "restricts the movement of pollutants". Even the EIS Chapter IV Section 10 "low hydraulic conductivities ranging from .3 to 0.00003 feet/day", doesn't seem so small when you convert it to 110 feet per year.

Chemical Reactivity Unknown

The interactions of airport pollutants with the high iron content, hydrogen sulfide and natural gas identified in the area during drilling need to be evaluated. See ref. (a4), Table 9 Records of Wells for T22N, R4E in Luzier

The ingredients of deicers is unknown (ref.) so their pollution risks can not be assessed. If carcinogens really are an ingredient as an official in Maryland suggests (ref. (a11)) , what is the impact on the aquifers?

Contamination Rate Calculations Unconservative

The assumptions that some have made in technical discussions, in technical reports related to airport construction and the project's EIS regarding effectiveness of till to protect the aquifers are unconservative. To quote, a recent e-mail from Gary Turney, Hydrology Supervisory of the US Geological Survey, (ref. (a2)):

> *All of the aquifers and semi-confining units will be connected vertically to some degree. That degree is dependent upon the degree of transmissivity of the semi-confining units. One common misunderstanding is that semi-confining units, such as till or clays, are impermeable. Water can indeed flow through tills and clays, just much more slowly than through sands and gravels.*

a) Till layers contain lenses making it more permeable

b) Till can be fractured making it more permeable

c)There may be very limited till in some areas - see Table 10, Drillers' Logs, in Ref. (a4)

d) Map (a) of Plate 3 in Investigations Report 92-4098 (ref. (a6)) indicates the area is in close proximity to an area where the Qva and Qal aquifers are "in direct hydraulic connection, and function as one aquifer". This was not a Sea-Tac site specific report and it is possible that more direct connections may exist between aquifers under Sea-Tac than assumed.

e) Map (b) of Plate 3 in Investigation Report 92-4098 (ref. (a6)) identifies the area "where aquifers are assumed to have **high hydraulic-conductivity values**' Looking at the map, it looks like someone said, "Where should we expand to most likely contaminate the future water supply for the area. Several wells were already destroyed due to airport expansion (Luzier pg. 97 ref. (a4)).

f) The AGI report mentions discrepancies between assessments (ref. (a7).

g) EIS does not comment on documented contamination of existing aquifers

As you have probably guessed by now, I really need more public comment time.

Arlene Brown

1. pg A5 Another last minute addition

some engineering background. In addition there should be some preproject assessment of quality of the habitat on both Des Moines and Miller Creek so any adverse impacts from sedimentation from this project can be quantified if a major sedimentation event occurs so appropriate remedial efforts can be taken by the project proponents to restore habitat. Timing construction activities so that they are done during the months when rainfall is at a minimum would be one excellent way to alleviate water quality impacts from sediment. This would also help to insure that sediment from the construction site would not interfere with fish eggs incubating in the gravel. The HPA for both Des Moines and Miller Creek will have work window of July 15 to October 1.

4. The vetland mitigation plan will meet WDFW requirements for vetland impacts from the runvay expansion. If successful the off site mitigation area with its high vater table, proximity to the Green River, and the vetland mitigation plan should enhance this area for vildlife and over time mitigate for loss of vildlife habitat at the runvay site. WDFW understands the need for offsite vetland mitigation for airport safety and the lack of large land areas to construct a mitigation area, hovever the dovnstream areas of both Des Moines and Miller Creek vill be impacted from the loss of vetlands in their respective headvaters. I calculate approximately 4.96 acres which are portions of vetlands #3,4,5,9,13,19,23,37, and 36 that are adjacent to and flov into Miller Creek. In Des Moines Creek a total of 2.48 acres of vetland numbers 51 and 52 that are adjacent to and flov into Des Moines Creek will be impacted by the borrov area and the SASA project. Mitigation for loss of export production should be implemented above and beyond what proposed for the Miller Creek and Des Moines Creek relocation mitigation in dovnstream areas of Miller and Des Moines Creeks. Mitigation could consist of LWD placement, vegetation enhancement or other habitat projects. it will be important that base flovs will not decrease as a result of loss of the vetlands. If base flov are lovered than vays should be found to supplement base flovs. In addition at the same time mitigation for local impacts to vildlife from fill in vetlands and upland areas could be done in the riparian corridor on Miller and Des Moines Creek. Projects could include, tree planting especially conifers, riparian enhancement, vildlife enhancement, and possible cooperation with City of Des Moines and Normandy Park in the restoration of the estuaries at the mouth of Des Moines and Miller Creek.

Impact on haul truck and Barge schedules? Only ~80 days instead of FEIS 270 days! Over 30 years to barg? P.w

From WA DEPT OF FISHERIES To DOE - 93%

JAN-16-1998 15:28

Additional References (Jan 8 1998 comments included extensive list)

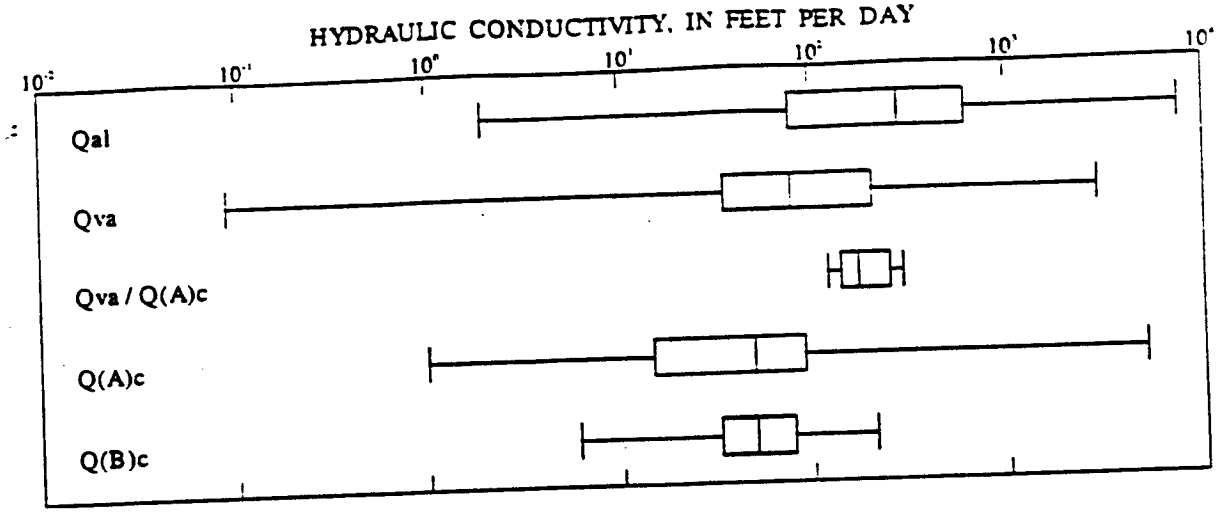
(a1) Electronic mail, A. Brown, Myrtle Jones, Hydrologist, April 16, 1998
(a2) Electronic Mail Gary Turney, Supervisory Hydrologist, April 16, 1998
(a3) Leisch, Brice A. , Price, Charles E. and Walters, Kenneth, L, Geology and Ground-Water Resources of Northwestern King County, Washington, Washington State Division of Water Resources Water Study Bulletin No. 20, 1963
(a4) Luzier J.E., Geology and Ground-Water Resources of Southwestern King County, Washington, State Dept. of Water Resources Water Supply Bulletin No. 28, 1969
(a5) Richardson, Donald, Bingham J.W. and Maddison R. J., Water Resources of King County, Washington, U.S. Geological Survey Water-Supply Paper, 1852
(a6) Woodard, D. G. Packard, F. A., Dion, N.P. and Sumioka, S.S. , Occurance and Quality of Ground Water in Southwestern King County, Washington, U. S. Geological Survey, Water- Resources Investigation Report 92-4098, 1995 (Table 2 enclosed)
(a7) AGI Project 16,116.001, Draft Groundwater Quality Impact Evaluation Proposed North Employee Parking Lot Seattle Tacoma International Airport, SeaTac Washington, AGI Technologies, 11 April 1997
(a8) AGI Project 16,116.001, Groundwater Quality Impact Evaluation Proposed North Employee Parking Lot Seattle Tacoma International Airport, SeaTac Washington, AGI Technologies, 13 June 1997
(a9) Request for Public Hearing and Comments on Port of Seattle File Number 96-4-02325", Notice of Application for Water Quality, From A. Brown, dated 8 January 1998
(a10) Wetlands/Water Hearing Comments submitted by A. Brown, April 9, 1998 (includes Sea-Tac 24 hour maximum rainfall data)
(a11) Wetlands/Water Hearing Cassette Tape, April/May 1997 Weekend Headliner: Safe Skies, Safe Water by Ross Simpson, NBC News Extra. Submitted by Debi Wagner at Hearing April 9, 1998

Also enclosed per Corp of Engineer's request:
Copy of Cutler & Stanfield comments on Air Conformity Determination. It contains the Univ of Florida fill calculations.

From Ref (a6) Occurance & Quality of Ground Water

Table 2.--*Statistical analyses of hydraulic-conductivity values for the Quaternary aquifers in southwestern King County: (A) Box plots of, and (B) values of range and quartiles for hydraulic conductivity for all wells and for each aquifer; and (C) matrix of confidence levels for difference in median hydraulic conductivity between aquifers*

(A)



(B) HYDRAULIC CONDUCTIVITY, IN FEET PER DAY

Aquifer	Quartiles					Cases
	Low	25	50	75	High	
Qal	2	78	290	613	7,569	51
Qva	0.09	36	83	216	2,990	68
Qva / Q(A)c	127	141	174	261	298	6
Q(A)c	1	15	51	92	5,174	74
Q(B)c	6	33	51	80	201	19

(C)

	Qal	Qva	Qva / Q(A)c	Q(A)c	Q(B)c
Qal					
Qva	100				
Qva / Q(A)c	36	95			
Q(A)c	100	100	100		
Q(B)c	100	96	100	8	

AR 037104

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March 31, 1997

VIA FACSIMILE

Mr. Dennis Ossenkop
Federal Aviation Administration
Northwest Mountain Region
Airports Division
1601 Lind Avenue, S.W.
Renton, Washington 98055-4056

Re: Comments of the Airport Communities Coalition on the FAA's Updated Draft Air Quality Conformity Determination for the Proposed Expansion of Seattle-Tacoma International Airport

Dear Mr. Ossenkop:

On behalf of the cities of Burien, Des Moines, Federal Way, Normandy Park, and Tukwila, Washington and the Highline School District, individually and collectively as the Airport Communities Coalition (the "ACC"), we are submitting the following comments on the Federal Aviation Administration's revised draft general conformity determination for the proposed expansion of Seattle-Tacoma International Airport ("Sea-Tac" or the "Airport").[1] The communities which make up the ACC are located in the immediate vicinity of the Airport and suffer directly from the emission of air pollutants from airport-related operations and activities.

[1] Fed. Aviation Admin. and Port of Seattle, Draft Supplemental Environmental Impact Statement for Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport ("DSEIS") (Feb. 1997), Appendix B - Updated Draft Air Quality Conformity Determination. In addition to these comments on the draft conformity determination, the ACC is submitting extensive comments on the overall DSEIS ("DSEIS Comments"). The ACC's DSEIS Comments and the expert reports appended thereto are incorporated by reference in this letter.

The FAA is obligated to undertake this conformity analysis under section 176 of the Clean Air Act.[2] An accurate evaluation of the potential impacts of the proposed expansion of Sea-Tac is critical given the importance of air quality to the health of residents in South King County.

The initial draft conformity determination was included in the Final Environmental Impact Statement ("FEIS"),[3] issued in February 1996. As a result of forecasting errors in the FEIS, the number of aircraft that would be using the expanded Airport in any given year was significantly underestimated, and the project's air quality impacts were discounted accordingly. Although the revised draft conformity determination ostensibly incorporates the corrected forecast in its analysis, it continues to significantly understate the level of emissions associated with the project, and fails to remedy most of the other flaws and omissions identified by the ACC in its comments on the previous draft conformity determination.[4]

A. The Revised Draft Conformity Determination Relies on an Inaccurate Estimate of Total Emissions

The revised draft conformity determination concludes that the total direct and indirect emissions from the proposed project would not exceed the *de minimis* levels for the applicable criteria pollutants and their precursors: volatile organic compounds (VOC), oxides of nitrogen (NO_x) and carbon monoxide (CO).[5] This conclusion is suspect on several counts. Erroneous assumptions continue to infect the dispersion analysis for both aircraft and surface traffic, while construction-related emissions are still underestimated. Discrepancies between data used to support this conclusion and data reported elsewhere in the DSEIS indicate that the calculation of emissions is simply incorrect. Rectifying these errors would result in project emissions above the *de minimis* threshold for one or more criteria pollutants.[6]

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[2] 42 U.S.C. § 7506(c).

[3] Fed. Aviation Admin. and Port of Seattle, Final Environmental Impact Statement for Proposed Master Plan Development Actions at Seattle-Tacoma International Airport (Feb. 1996)

[4] The ACC's previous comments are incorporated by reference into this letter. See Letter from Perry Rosen to Dennis Ossenkop re: Comments of the Airport Communities Coalition ("ACC") on the FAA's Draft Clean Air Act General Conformity Determination for the Proposed Expansion of Seattle-Tacoma International Airport (Mar. 18, 1996); Letter from Thomas D. Roth to Dennis Ossenkop re: Additional Comments of the Airport Communities Coalition on the FAA's Draft Clean Air Act General Conformity Determination for the Proposed Expansion of Seattle-Tacoma International Airport (June 6, 1996) and reports appended thereto.

[5] DSEIS at B-6.

[6] See Memorandum from Michael G. Ruby, P.E., President and Director, Engineering, Environmetrics, Inc., to Cutler & Stanfield, L.L.P. (Mar. 27, 1997), DSEIS Comments, Appendix N.

For example, the data contained in the revised draft conformity determination indicates that NO_x emissions would exceed 100 tons in the year 2000. Construction-related emissions for that year would include 70 tons of NO_x from fill transport and employee vehicle trips, and another 61 tons of NO_x associated with borrow source activity,[7] for a total increase in NO_x emissions of 131 tons. This increase would be offset by a reduction of 30 tons credited to landside improvements,[8] making the net NO_x emissions attributable to the overall project 101 tons – in excess of the *de minimis* threshold.[9]

Furthermore, in calculating the emissions attributable to the project, the revised draft conformity determination appears to take credit for decreased emissions associated with surface transportation projects which are slated to move forward independent of the proposed expansion of Sea-Tac. For example, both the public parking terminal expansion and the North employee parking lot are scheduled to begin construction in 1997.[10] Therefore, decreased emissions attributable to these projects cannot be used to offset increased emissions from the Airport expansion for purposes of determining whether net emissions exceed *de minimis* levels.

B. The Revised Draft Conformity Determination Fails to Analyze Emissions Associated with the Maximum Level of Operations

Based on the asserted *de minimis* emissions attributable to the project, the FAA takes the position that a formal conformity determination is not required by law, but the agency provides a conformity analysis "to address community and agency concerns regarding potential air quality impacts."[11] Not only does the FAA conclude that the project would conform to the State Implementation Plan ("SIP") if a conformity determination were necessary, but it congratulates itself that this conclusion "is especially strong given the conservative nature of the assumptions

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[7] DSEIS at B-12.

[8] DSEIS at B-10.

[9] The table entitled "Change in Emissions Inventory", DSEIS, Figure A at B-8, shows a total of 118 tons of NO_x from construction, rather than the 131 produced by adding the numbers provided in the textual discussion of construction impacts. This table contains numerous errors (e.g., adding 14 to negative 410 and arriving at negative 346) and inconsistencies (in addition to the discrepancy in NO_x emissions described above, the table indicates a total of 99 tons of CO construction emissions when the breakdown given elsewhere adds up to 108). Therefore, the reliability of any information in this table is extremely questionable.

[10] See Laura T. Coffey, *Six airport projects to begin in '97*, Daily Journal of Commerce (Seattle), Mar. 26, 1997 at 1.

[11] DSEIS at B-6 to B-7.

used in the analysis, and the fact that "worst-case" assumptions were used, even though the conformity regulations do not specify this as a requirement."[12]

In fact, as noted below and described in greater detail in the ACC's DSEIS Comments,[13] the FAA and the Port have limited their analysis of air quality impacts to avoid a true "worst-case" analysis. Moreover, the analysis of air quality impacts does not comport with the requirement that emissions be calculated for the "year during which the total of direct and indirect emissions from the action is expected to be the greatest on an annual basis."[14] According to the DSEIS, the expanded Airport could handle a maximum of up to 630,000 annual operations,[15] yet the revised draft conformity analysis only considers emissions levels through the year 2010, when operations are projected to be just 474,000.[16]

C. Aircraft Emissions are Incorrectly Calculated and Reported

According to the revised draft conformity determination, the higher number of operations associated with the third runway alternative would result in NO_x levels which are identical to the No-Action levels. The data presented in Appendix B of the DSEIS indicates that NO_x emissions from aircraft would be less under the Preferred Alternative than under the No-Action scenario in 2005,[17] the first year of operation of the proposed new runway, even though the number of operations and the fleet mix are assumed by the FAA to be the same in 2005 under both the No-Action and Preferred Alternative. This differential cannot be explained by a reduction in delay and congestion associated with the new runway, since NO_x emissions are associated predominantly with take-off and climb-out, not with taxiing and idling.[18] Errors in inputting and reporting data appear to offer the only explanation for this anomalous result.[19]

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[12] DSEIS at B-7.

[13] DSEIS Comments, § 4.1.

[14] 40 C.F.R. § 51.859(d)(2).

[15] DSEIS, Exhibit 2-7 at 2-26.

[16] DSEIS at 1-2.

[17] DSEIS, Figure B at B-9.

[18] See Energy and Environmental Analysis and K.T. Analytics, Inc., Air Pollution Mitigation Measures for Airports and Associated Activity 4 (California Air Resources Board, May 1994).

[19] See Memorandum from Michael G. Ruby, P.E., President and Director, Engineering, Environmetrics, Inc., to Cutler & Stanfield, L.L.P. (Mar. 27, 1997), DSEIS Comments, Appendix N.

The calculation of aircraft emissions of NO_x in 2010 presents an even greater paradox. NO_x emissions are projected to be identical with or without the proposed project, despite 14,000 additional operations under the Preferred Alternative scenario.[20] Although not included in the revised draft conformity determination, data presented elsewhere in the DSEIS suggests that by 2020, the additional 72,000 operations associated with Preferred Alternative would produce lower levels of NO_x emissions than the no-action scenario.[21] The conclusion that these emissions would be lower despite increased operations is implausible and is unsupported by existing scientific evidence.

D. Estimates of Construction-Related Emissions are Unreliable

The draft conformity determination purports to quantify potential emissions associated with construction activity,[22] yet the DSEIS asserts that "it is not possible to identify the specific types of construction equipment and frequency of usage that could occur."[23] The estimate of equipment used to model emissions at the embankment construction site[24] is clearly inadequate for a project of this size and complexity.[25] Since emissions from heavy-duty construction equipment operating on paved and unpaved roads are potentially significant sources of NO_x, CO and VOC, even minor changes in the numbers, types and usage of this equipment could alter the results of the modeling.

Furthermore, the DSEIS seriously underestimates the number of trucks and truck trips required to transport the fill.[26] This underestimation in turn effects the consideration of impacts on air quality. Not only will more trucks be required, but the increased truck traffic will in turn add to the congestion on local roads, further increasing emissions from idling and slow-moving vehicles.

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[20] DSEIS, Figure B at B-9, Table C-2-5 at C-2-17.

[21] DSEIS, Table D-2 at D-8.

[22] DSEIS, Appendix B at B-12.

[23] DSEIS at 5-4-1.

[24] DSEIS at B-12.

[25] See Christopher Brown and Jimmie Hinze, Comments on the Analysis of Construction Impacts in the Draft SEIS for Seattle-Tacoma International Airport (Mar. 1997), DSEIS Comments, Appendix M.

[26] See DSEIS Comments, § 4.5.1.

E. Surface Traffic Emissions are Underestimated

The revised draft conformity determination fails to fully identify and disclose the surface traffic impacts attributable to this project by avoiding a true worst-case scenario, which would consider the impact of the expanded airport operating at full peak-hour capacity.[27] The DSEIS indicates that an expanded airfield would accommodate 6,300 peak hour enplanements in 2010.[28] Whereas the No-Action scenario assumes that the same number of passengers could be accommodated by spreading them out throughout the day, construction of the third runway would allow more of these passengers to fly during peak hours. As a consequence, many more people would be arriving and departing during these peak periods – a scenario which the revised draft conformity determination does not analyze.

Furthermore, while the greatest cumulative amount of traffic may occur during the evening commute, airport-related traffic is at its worst at midday, coinciding with the peak hour of arrivals and departures.[29] Therefore, traffic generated by this project is likely to be greatest during these airport peak hours, rather than during commute peak hours. The absence of any detailed analysis of midday traffic conditions results in a significant discounting of the emissions attributable to this project.

Finally, the air quality analysis for both the DSEIS and the revised draft conformity determination contains some unexplained discrepancies in its reported data which skew the comparison of With-Project to No-Action surface traffic. For instance, the DSEIS shows the same number of Airport employee and maintenance trips in each of the future years studied,[30] despite an increase in the number of operations associated with the Preferred Alternative. An expanded Airport sustaining an increased number of operations is likely to employ a greater number of people.

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[27] See Smith Engineering & Management, Traffic Analysis of Draft Supplemental Environmental Impact Statement for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport (Mar. 11, 1997), DSEIS Comments, Appendix O.

[28] DSEIS, Table 2-6 The DSEIS does not identify a theoretical maximum hourly capacity for the expanded airfield. See DSEIS at 2-25.

[29] Current flight schedules indicate that the Airport's weekday peak period occurs between 11:00 a.m. and 1:00 p.m. DSEIS at 5-1-2.

[30] DSEIS Table 5-1-1 at 5-1-10.

F. A New Conformity Analysis is Required Before the FAA Can Approve this Project

For the foregoing reasons, the Clean Air Act requires the FAA to comprehensively review and revise the analysis of air quality impacts associated with the Sea-Tac Master Plan Update project. The ACC respectfully requests that the FAA refrain from granting approval for any element of the proposed expansion, or otherwise "supporting in any way" the Sea-Tac Master Plan Update project unless and until the FAA can make a positive conformity determination based on a revised air quality and traffic analysis that complies with Clean Air Act requirements, applicable federal law and accepted modeling protocols.

Sincerely,

Perry M. Rosen

Perry M. Rosen

cc: Ms. Barbara Hinkle, Port of Seattle
EPA (Region X)
Puget Sound Regional Council

COMMENTS ON THE ANALYSIS OF CONSTRUCTION IMPACTS IN THE DRAFT SEIS FOR SEATTLE-TACOMA INTERNATIONAL AIRPORT

PREPARED FOR

Cutler & Stanfield, L.L.P
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Washington, D.C. 20005

on behalf of

THE AIRPORT COMMUNITIES COALITION

PREPARED BY

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March 28, 1997

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The following comments are based on our review of the Draft Supplemental Environmental Impact Statement for Master Plan Update Development Actions at Seattle-Tacoma International Airport and the Fill Material Alternative Delivery Method Study for Third Runway prepared by HNTB (Final Draft, Nov. 1996). In addition to the specific comments offered here, we have provided information and observations which have been integrated into the comments prepared by Cutler & Stanfield, L.L.P. on behalf of the Airport Communities Coalition.

Due to the incomplete information available at this time on construction methods and engineering design, these comments are necessarily general and preliminary in nature.

1. Volume of Fill Material

The reduction in volume of the excavated materials to the compacted fill is stated to be 15 percent, which the Draft SEIS refers to as "shrinkage." (Draft SEIS, p. 5-4-3). The Draft SEIS appears to misuse this term, which is properly used to describe the volume change in bank material when it is compacted. The Draft SEIS does not discuss the volume change in material that is taken from the bank and placed on a hauling unit, commonly referred to as "swell" (see Figure A).

In order to calculate the number of trucks needed to transport fill, both a swell factor and a shrinkage factor must be used. The value of 15%, as used in this report, appears to be an attempt to incorporate the two values into one. This number appears small to accurately reflect the change in volume from the trucks to the final-embankment site. Using what might be considered more typical values, the actual reduction in the material from loose measure in the truck to the compacted fill volume is likely closer to 21.7% (see Figure B).

Both shrinkage and swell factors may be affected by soil characteristics. The Draft SEIS does not mention the assumed soil characteristics on which the estimates of fill were based. The quality of fill also will affect the seismic stability of the embankment.

2. Construction Equipment

The Draft SEIS does not fully describe the fleet of equipment involved in fill transport, placement and compaction. The actual determination of the number of pieces of equipment required for this project can only be made by determining the cycle times of the various pieces of equipment involved. Queuing theory is one method that can be used to more accurately model field conditions to establish the equipment requirements. Cycle times must be more accurately determined in order to accomplish an accurate estimate of the fleet size.

The Draft SEIS' assumptions (used to estimate emissions from construction equipment) are overly simplistic. Three scrapers, seven dozers, five miscellaneous HDDV trucks and two water trucks (Draft SEIS, p. B-12) are clearly inadequate for a project of this size and complexity. Additional equipment, including motor graders and compactors, would likely be needed to construct the third runway embankment. Mobilization of this equipment to the site, either on flat-bed trucks or under their own

power, is not discussed in the Draft SEIS but could add to congestion on local roads and coordination problems at the site itself.

3. Organization of Field Operations

The Draft SEIS contains no discussion of how field operations at the excavation areas, and especially in the fill area, will be organized to accommodate the different pieces of construction equipment, along with the stream of dump trucks transporting fill. Since the fill area is limited in area and accessibility, the organization of equipment in this area is most important. The construction staging area is further limited by the existing topography of the site and the changes in grade which would occur as the project progresses. The logistics of operations at the fill area, including access points, routing on site and egress, must be thought through carefully.

The Draft SEIS seems to assume that each piece of equipment can be fully utilized at all times during the work day. In reality, even a well-coordinated construction project experiences some situations in which one piece of equipment has to wait for another to complete its task before it can proceed. For example, a dump truck may not be able to dump a load of fill until a dozer has spread the previous load. The delay experienced by the dump truck may in turn hold up other equipment which needs to access the site. Finally, this could cause the dump truck to be delayed in getting back to the excavation site, which could reduce the number of round trips each truck could make during the assumed 16-hour day.

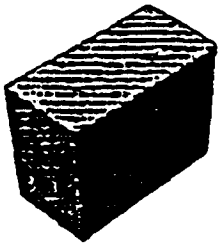
3. Disposal of Unsuitable Material

The initial site work will consist of excavating the organic materials (vegetation, etc.) which is unusable as fill. Some of the material excavated from the construction site may also be unsuitable for construction of the embankment due to poor quality, potential contamination, or other undesirable soil characteristics. While the volume of this material is small in comparison to the total fill required for the project, it could amount to a significant quantity (possibly in excess 50,000 cubic yards) of material which must be hauled away and disposed of.

4. Cut and Fill Operations

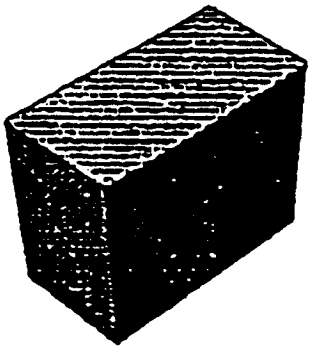
Approximately 3 million cubic yards of material would be taken from the south end of the proposed third runway as cut material and placed at the north end of the runway as fill. There is no indication that this material has been properly examined and found to be suitable for this purpose. Even if the material is suitable, the time required to perform this work would be considerable. The construction schedule does not appear to include an allowance for transfer of material from one part of the construction site to another, and the Draft SEIS seems to dismiss this cut and fill effort as consuming very little time.

FILL MATERIALS
Volume Changes From Borrow Pit To Final Placement



Bank Volume

SWELL



Loose Volume

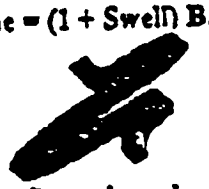
SHRINKAGE

Compacted Volume

SWELL AND SHRINKAGE PRINCIPLES

Swell (expressed in percent) reflects the volume change in material that is taken from the bank and placed on a hauling unit.

Loose Volume = (1 + Swell) Bank Volume



Shrinkage (expressed in percent) reflects the volume change in bank material when it is compacted.

Compacted Volume = (1 - Shrinkage) Bank Volume

If one yard of material (with swell of 15% and shrinkage of 10%) is taken from a bank, its loose volume is computed as follows:

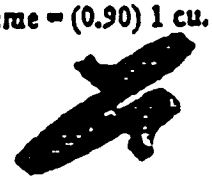
Loose Volume = (1 + 0.15) 1 cu. yd. = 1.15 cu. yd.

If this one bank cubic yard of material (with swell of 15% and shrinkage of 10%) is compacted, its compacted volume is computed as follows:

Compacted Volume = (1- Shrinkage) Bank Volume

Compacted Volume = (1- 0.10) 1 cu. yd.

Compacted Volume = (0.90) 1 cu. yd. = 0.9 cu. yd.



Note: Actual reduction in the material from loose measure in the truck (1.15 cu. yd.) to the compacted fill volume (0.9 cu. yd.) is 21.7%

TRAFFIC ANALYSIS OF DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED MASTER PLAN UPDATE DEVELOPMENT ACTIONS AT SEATTLE-TACOMA INTERNATIONAL AIRPORT

prepared for
THE AIRPORT COMMUNITIES COALITION

by

SMITH Engineering & Management

MARCH 27, 1997

AR 037117

INTRODUCTION AND EXECUTIVE SUMMARY

We have reviewed the ground transportation related elements of the *Draft Supplemental Environmental Impact Statement For The Proposed Master Plan Update Development Actions At Seattle-Tacoma International Airport* and the related documents and data provided by the Federal Aviation Administration (FAA). In our review, we have discovered a number of fundamental flaws that affect the conclusions of the ground traffic analysis on impacts and relative performance of the alternatives and, as a consequence, the input to and possibly the conclusions of other analyses that depend on traffic considerations such as air quality conformity analysis. Reasons why we believe the Draft Supplemental Environmental Impact Statement for Sea-Tac (DSEIR) is flawed and inadequate include:

1. The DSEIS does not assess the traffic impact of the Sea-Tac alternatives at ground traffic loadings corresponding to each alternative operating at its air operations capacity. Hence, it does not assess the potential worst case condition. If traffic conditions for the Preferred and No Build Alternatives were analyzed for an hour in which each alternative was functioning at its air operations capacity, the ground transportation analysis would likely conclude that the Preferred Alternative would have significant adverse traffic impacts and the differences might affect the conclusions of air quality analyses relating to ground traffic as well.

The traffic analysis in the DSEIS does not include a true worst case condition for ground traffic impacts of Sea-Tac Airport's traffic. A true worst case test of Sea-Tac's traffic impacts would have the Preferred Alternative and the No Build Alternative operating at their actual air operations/air passenger capacities, the condition that causes the greatest airport traffic load on the ground transportation system. The worst case analysis would be carried out during hours of the day when airport traffic would cause the greatest differential in level of service experienced on the street and highway system.

In the supposed worst case traffic analysis carried out in the DSEIS, the No Build alternative is operating at about 72 percent of its apparent capacity and the Preferred Alternative is operating at only about 58 percent of its capacity. There is no detailed traffic analysis of the Preferred and No Build Alternatives operating at their capacities at any time of day. And, except for construction traffic impact analyses, the only time of day analysed is the p.m. commute peak. This is a time of day when many key street and highway facilities are projected to be loaded in excess of capacity by non-airport traffic and the impacts of airport traffic are indistinguishable in the analysis methods used in the DSEIS.

An air travel demand level at which *both* the No Build and Preferred Alternatives would operate at their capacities is entirely plausible. The DSEIS itself takes pains to caution against the unreliability of its air travel forecasts. And the DSEIS cites but does not analyze in depth for traffic impacts an FAA Terminal Area Forecast for Sea-Tac that predicts 11.4 percent more air operations and 5.9 percent more air passengers than the Port of Seattle forecasts that were used as the basis for the DSEIS. The Airport Communities Coalition has presented expert analysis indicating that air travel demand could be as much as 30 percent greater than the forecasts used in the DSEIS (see Winston). And the fact that the DSEIS projects the existing airport configuration - the No Build Alternative - to serve a level of operations and passengers far beyond the forecasts it was designed for is itself precedent for concluding that the preferred alternative would actually operate at its capacity for peak periods in the forseeable future. Hence, it is entirely reasonable that the "worst case" scenario that

should have been assessed for ground transportation impacts in the DSEIS is the Preferred Alternative operating at its full capacity of 99 flight operations.

If a reasonable worst case analysis were carried out with both alternatives operating at their capacities, it would likely show results quite different than that presented in the DSEIS. The Preferred Alternative, generating a ground transportation demand corresponding to 99 flights per hour, would have significantly more adverse traffic impacts than the No Build, which would generate a ground transportation demand corresponding to only 82 flights per hour. If this analysis were carried out for a time of day other than the p.m. commute peak (such as mid-day), the true impacts of airport traffic would not be masked by other traffic. Differences in the outcome of the traffic analysis in such a worst case scenario might also alter the outcome of the air quality conformity analysis.

2. The DSEIS does not assess the airport alternatives ground traffic impact at the hour(s) of the day when the airport may have its most discernable and significant traffic impacts. If the appropriate hours of the day were analyzed, different conclusions would likely be drawn about the significance of the traffic impacts of the preferred alternative and might cause changes in the significance of findings in air quality determinations.

Point "1" above asserts that the true worst case condition that should have been analysed for traffic impacts in the DSEIS is the condition of each Alternative operating at its full air operations capacity. Even if the argument for a "full capacity operation" scenario is dismissed, the DSEIS should have analyzed as a potential worst case the hour(s) of the day when *the airport* generates its maximum traffic.

The DSEIS acknowledges that the actual peak in airport operations and apparent peak in airport related ground traffic occurs at midday. However, the DSEIS does not analyze traffic conditions in depth for the mid-day peak period. This is a crucial omission in the DSEIS which results in failure to disclose potentially significant impacts of the Preferred Alternative.

Data presented with the DSEIS shows current air passenger traffic (that accounts for 80 percent of all airport-related traffic according to the DSEIS) in the mid-day peak is 61 percent higher than in the evening commute peak, a fact that suggests findings of significance would likely be made if an in-depth analysis of the mid-day peak ground traffic were done. Although the cumulative amount of traffic on the street and highway system is probably greatest during the p.m. commute, the worst case of adverse impacts of airport traffic may well occur at mid-day. If airport traffic bottles-up what would otherwise be free-flowing mid-day traffic conditions on the street and highway system, this would certainly be a significant adverse impact and potentially a more important one than incremental contributions to an already gridlocked situation in the commute peak. In situations where a project is likely to have significant adverse traffic impacts at periods of time outside the commute peak and impacts significantly different from those that occur in the commute peak, it is reasonable and expected that the environmental document would analyze those periods in depth. The fact that no such analysis was done despite awareness of evidence that the mid-day condition might be the one where the airport has most significant ground traffic impact makes the DSEIS substantially inadequate as a disclosure and decisionmaking document.

The data also shows that in the mid-day peak by Year 2010, the Preferred Alternative would serve 3.5 percent more originating and destined air passengers than the No Build Alternative. This is a reverse of the relationship that prevails in the p.m. commute peak period that the FAA chose to be the sole period subjected to in depth traffic analysis. In that selected analysis hour, the No Build

alternative is projected to serve 1.9 percent more originating and destined air passengers than the preferred alternative. Hence, there is a likely prospect that if a detailed ground traffic analysis were performed for the mid-day period, it would likely find the Preferred Alternative to have greater traffic impact than the No Build.

Furthermore, in the forecast years, non-airport traffic alone may be sufficient to place key regional traffic facilities in Level of Service F conditions during the p.m. commute peak, making it difficult if not impossible to discern the impacts of airport traffic, to say nothing of determining the differences in impact between one airport alternative and another during that particular period of time. At mid-day, non-airport traffic is generally free-flowing. However, substantial increases in mid-day peaked airport traffic could cause readily quantifiable decrements to level of service. Differences in the impacts of the alternatives might be more readily discerned in this period. This also suggests that probably the most appropriate worst case traffic impact condition (the time the airport has its most significant impact on traffic) that should be evaluated in depth would be the mid-day peak.

Yet another consideration is the disclosure in the DSEIS that a level of air travel activity significantly above that used as a basis for the ground traffic assessments in the document is highly likely. In fact, the FAA's own Terminal Area Forecast of air travel for Sea-Tac predicts 11.4 percent more air operations and 5.9 percent more air passengers than the Port of Seattle estimates that were used as the basis of evaluations in the DSEIS. Had the FAA forecast been used as the basis in the DSEIS, an in-depth mid-day peak traffic analysis would show the Preferred Alternative having proportionately greater adverse ground traffic impacts but the No Build traffic effects unchanged (because in the mid-day peak the No Build is constrained by its air operations capacity while the Preferred Alternative i not).

Considering the preceding paragraphs, it must be concluded that the DSEIS is deficient because of the lack of a mid-day peak traffic analysis.

3. If one considers traffic impacts of both No Build and Preferred Alternatives operating at their respective full capacities or traffic impacts during the mid-day peak period of Sea-Tac airport operations, or at levels of air traffic demand above the Port of Seattle forecast used in the DSEIS, weather conditions that limit flight operations on the No Build Alternative would create a further differential in traffic impact adverse to the Preferred Alternative nearly half of the time. Weather conditions that limit ground transportation demand of the No Build Alternative should be analyzed as a separate case.

Weather conditions that impair flight operations on the No Build Alternative would likely increase the significant adverse ground traffic impacts of the Preferred Alternative over the No Build. This is true in any periods of the day where the forecast air travel activity approaches or exceeds the capacity of the No Build. Such a condition occurs in the mid-day peak for the Year 2010 Port of Seattle forecast that was used as the basis for the DSEIS, and would be true for a broader period of the day under the higher air travel forecasts of the FAA and of Winston. During conditions of weather impairment, landing capacity on the No Build is reduced by increments of 20, 40 or 60 percent, decreasing by similar increments the numbers of arriving air passengers the No Build could be released onto t ground transportation system. Conditions of weather impaired flight operations have such high frequency of occurrence - 44 percent of the time according to the DSEIS - that that it should be assessed as a separate case in evaluating the impacts on mid-day traffic. Had the DSEIS done this,

further significant adverse traffic impacts of the Preferred Alternative would have been disclosed. Because such analysis is not provided, the DSEIS is deficient.

The DSEIS confines its analysis to the p.m. commute hour, a period of time when, according to the Port of Seattle forecasts, the No Build Alternative would only be operating at about 72 percent of its peak capacity. Because the airport is not operating as its peak in the sole hour selected as the sole basis of ground transportation analysis, weather impairment of flight operations is likely only a minor factor in that hour. However, had the DSEIS properly assessed ground transportation impacts in hours when the No Build would be stressed to or near its air operations capacity, the differential effect of weather limitations on air capacity would be evident 44 percent of the time and would result in a differential ground transportation impact unfavorable to the Preferred Alternative.

4. In its structuring of the alternatives considered, the DSEIR is deficient in that it deprives the public of the opportunity to consider the reasonable alternative of optimizing the landside facilities and operations around the existing airfield and limits consideration to a binary choice between an alternative involving massive expansion of the airfield and one involving absolutely no change from existing facilities. The definition of alternatives in the DSEIS is further flawed in that the Port of Seattle is already committed to landside changes in the No Build configuration that would improve its traffic performance significantly over the condition considered in the DSEIS. In essence, the DSEIS analyzes the Preferred Alternative in comparison to a "no project" condition that would not reasonably exist at the year of comparative analysis.

The DSEIS is deficient in that it fails to consider the obvious alternative of building the land-side improvements included in the Preferred Alternative but not building the third runway (in other words, a Preferred Alternative land-side configuration with a No Build air-side configuration). In general, the landside improvements incorporated in the Preferred Alternative are beneficial from air and ground transportation perspectives and could be constructed or implemented independently of whether or not the third runway is built. It is the third runway, its direct impacts and the potential for a 20.7 percent increase in peak hour air operations, air passengers and air passenger ground traffic over the No Build and the derivative impacts of those increases that are most detrimental. In inseparably bundling a set of improvements regarded as impact neutral or beneficial with one regarded as controversial and potentially substantially detrimental, the DSEIS fails to distinguish the potential impacts of the third runway from the benefits of the landside improvements and deprives the public of the opportunity to consider the reasonable alternative of optimizing landside facilities and operations around the existing airfield. It artificially creates an "all-or-nothing" choice between the Preferred Alternative and the No Build. This makes the DSEIS deficient as a disclosure and decisionmaking document.

Another way of stating the same argument is that the DSEIS treats certain improvements affecting ground transportation as exclusive assets of the Preferred Alternative when in reality they could as readily be implemented as readily with the No Build, when in all liklihood they would be implemented by reasonable and responsible government if the No Build were called upon to serve anything like the activity levels ascribed to it in this DSEIS and when in fact, in its current actions, the Port of Seattle is already grafting them onto the No Build condition. The preceeding sections focused on one reason why the DSEIS errantly concludes that the Preferred Alternative has less ground traffic impact than the No Build - because it selected as the sole hour of the day for its analysis an hour when the No Build would serve more air passengers than the Preferred Alternative. Another important reason why the Preferred Alternative appears superior in the DSEIS analysis is because of the terminal parking garage expansion, the shift of employee parking location north of State Route 518, the roadway connection from the terminal system to 28'th Avenue South at S.188th Street and other landside changes that tend to shift traffic away from critical traffic congestion points in the vicinity of the

airport are presumed to be part of the Preferred Alternative but not implemented with the No Build. These changes have no direct linkage to the most significant and objectionable feature of the Preferred Alternative, the third runway proposal and could as readily be implemented with the No Build case. In fact, in its meeting of March 25, 1997 the Port Commission of the Port of Seattle took action to implement the parking garage expansion and the employee parking north of SR 518, essentially making them a part of the No Build condition. The DSEIS is flawed in that it creates a false measure of the Preferred Alternative's traffic impact by comparing it to a No Build condition that would not exist at the time of comparison.

5. The DSEIS may be inadequate in that it relies upon base year conditions data that may no longer describe conditions at and in the vicinity of Sea-Tac airport.

The DSEIS discloses that air operations and air passenger totals experienced in 1995 and 1996 were significantly greater than in 1994, so substantially so that it caused the Port of Seattle to increase its forecast of Year 2010 air operations and air passengers by 17 percent and the FAA to increase theirs by 30 percent for air operations, 24 percent for air passengers. If conditions in 1995 and 1996 were so radically different from 1994 that it caused vast differences in the forecast air travel activity, this suggests that the base year data should be updated also. The DSEIS would appear to be deficient by continuing to rely on 1994 as a base year. We note that in fact, some of the data used in the ground traffic analysis was collected as long ago as 1984 and is almost certainly outdated and inaccurate currently.

6. The responses to our comments on the Draft Clean Air Act Conformity Determination presented in the DSEIS are incomplete, inadequate, unresponsive to the issues raised, mischaracterizations of our comments or are merely self-references to the original inadequate materials that elicited the comment.

The series of responses contained in Responses to Comment 68, 69 and 82 concerning the adequacy of the TRAFFIX model used as a basis for the ground traffic analysis is a good illustration of the inadequacy of the DSEIS responses. In our original comments we carefully documented an extensive patter of inconsistencies in trip generation, trip origin-destination patterns and route assignments encoded into the TRAFFIX model that, taken together, strongly suggest a systematic pattern of human intervention to bias the model results against the No Build Alternative and in favor of the Preferred Alternative. We also commented that the TRAFFIX model procedure was one that offered an exceptionally high level of human intervention to bias results. In its responses, the DSEIS facilely characterizes the inconsistencies as "minor errors" that it claims it has corrected in the current work but ignores the fundamental issues that extensive pattern of the inconsistent treatments appears to evidence a systematic attempt to bias the results in favor of one alternative versus another and that the TRAFFIX procedure is one that is particularly susceptible to such biasing interventions.

The referenced responses on the subject of the adequacy of the TRAFFIX model also mischaracterize our original comments re the PSRC EMME/2 model. It does this by implying that we had suggested employing the PSRC model at the same level of zonal and network detail as is used by PSRC for regional analysis purposes. This mischaracterization enables the response to evasively claim that the TRAFFIX model is able to provide the more highly refined analysis detail that is needed in the airport area while the PSRC model is not. Our original comments clearly speak to a derivative model of the PSRC model "focused" on the airport area. The word "focused model" is a term-of-art meaning starting from a large-area "parent" model such as PSRC's and creating a variant of derivative of it - the focused model - that has a much higher level of zonal and network detail inserted into it in a

subarea of particular study interest. Our original comment clearly indicated that a *focused variant* of the PSRC model would have been far superior to the TRAFFIX model employed for this EIS and also noted that the focused variant of the PSRC model could have been prepared at a time, effort and cost comparable to what was needed to prepare the TRAFFIX model. By comparing TRAFFIX to the regional PSRC model rather than a focused variant of it, the DSEIS response makes an inappropriate comparison that leads to an incorrect conclusion.

For the record, let us clearly state that the study should have employed a "network-sensitive" traffic forecast model technique for the traffic forecast and assignment to routes. The TRAFFIX model is not a "network-sensitive" technique. The most logical choice would be to use the PSRC EMME/2 model *with focused modifications to provide a greater level of street and highway analysis zone detail in the area of primary concern for the Sea-Tac study*. If the analyst is uncomfortable or inexperienced in exercising the EMME/2 software package, the model could be redone using similar "network-sensitive" software packages including, but no limited to, TRANPLAN, UTPS or MINUTP. The important point is that "network-sensitive" softwares such as cited above should have been used to forecast how airport traffic and non-airport traffic would spread itself over available routes, including re-routing choices made by non-airport traffic in reaction to congestion created by airport traffic. Regardless of which of these "network-sensitive" softwares is used, the traffic forecast results would then be input to any of a number of suitable capacity analysis/level-of-service evaluation programs - even the intersection level-of-service evaluation module of the TRAFFIX package would be suitable for this final aspect of the work.

We note here that in the DSEIS work, even the TRAFFIX forecast results for intersections were exported to yet another level-of-service evaluation software, despite the fact that TRAFFIX internal capability includes the same 1994 Highway Capacity Manual analysis technique. One reason this seeming unnecessary exportation step may have been taken is because the TRAFFIX module continues to report volume-to-capacity ratios and estimates of average delay per vehicle whereas the HCM evaluation software that was employed withholds this information once Level-of-Service F conditions are reached (capacity is exceeded). We deduce this was done to conceal these results because the exceedences of capacity and resultant delay that would result under the DSEIS forecasts are so extensive as to call to question the credibility of entire traffic analysis. For instance, the unreported results of traffic projections for the DSEIS indicate that in Year 2010 under the Preferred Alternative in the p.m. commute peak, traffic approaching the intersection of S. 188th Street and International Boulevard is estimated at 196 percent of capacity (twice as many cars will approach the intersection in that hour as can get through it) and the average delay per vehicle is estimated at 870 seconds per vehicle (on the average, each vehicle would sit in queue for fourteen-and-a half minutes before clearing the intersection). Obviously, before actual conditions reached anything like what is implied by the DSEIS TRAFFIX forecasts, much of the traffic would find an alternate route, an alternate mode of travel, an alternate time for the trip or not make the trip at all. So the entire traffic analysis in the DSEIS has no believable relationship to likely future conditions.

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March 31, 1997

Mr. Dennis Ossenkop
Federal Aviation Administration
Northwest Mountain Region
1601 Lind Ave, S.W.
Renton, WA 98055-4056

Dear Mr. Ossenkop:

The Department of Ecology has reviewed the draft Supplemental Environmental Impact Statement (SEIS) for the Proposed Master Plan Update Development Actions at SeaTac Airport. This letter comments on the air quality and general conformity aspects of the project. Comments on other environmental concerns are being provided in another letter from Ecology. The Air Quality Program has been coordinating its review and comments with the Environmental Protection Agency (EPA) and Puget Sound Air Pollution Control Agency (PSAPCA). Our intent is to provide the Federal Aviation Administration (FAA) with information to enable a thorough, final conformity analysis and to ensure that the project conforms to the State Implementation Plan (SIP) as required by the Clean Air Act.

As noted in the draft SEIS, the SeaTac Airport is located in a maintenance area for carbon monoxide and ozone. We are concerned about the updated air quality conformity analysis conclusion that the project will not equal or exceed the applicable "de minimis" threshold levels. We also have concerns regarding the surface transportation impacts and construction impacts associated with the fill for the third runway.

Our concern regarding the "de minimis" conclusion is based upon an intensive technical air quality review conducted by the US Environmental Protection Agency (EPA). On March 25, 1997, these draft findings were discussed by EPA and their consultant, PSAPCA, the Port of Seattle and their consultants, the FAA, and Ecology.

The EPA identified errors in the Emissions and Dispersion Modeling System (EDMS) model procedures run for carbon monoxide (MOBILE 5A factors) and aircraft emissions (temporal factors). Additionally, some "other" construction equipment was not included in the EDMS emission calculations. The report indicates that the project would exceed the de minimis conformity thresholds for carbon monoxide and oxides of nitrogen in the years 2005 and 2000 respectively. Some additional analytical work may be needed for carbon monoxide to supplement the local carbon monoxide "hotspot" conformity analysis already in the draft SEIS. Exceeding the de minimis threshold for the oxides of nitrogen standard means that emission offsets may be required to demonstrate conformity.

On the basis of EPA's analysis, and acknowledgments by the Port of Seattle's consultant of modeling errors and a commitment to revise the calculations, Ecology cannot support a de minimis conformity

finding at this time. We urge the FAA and the Port of Seattle to complete their conformity reanalyses as soon as possible and present the results in the final SEIS. Should the reanalyses differ from the draft SEIS conformity analysis it may be appropriate to provide additional time for public comments on the final conformity analysis.

As noted in the draft SEIS, surface transportation vehicles are the predominant source of air pollution in the airport area. Clearly conveying the traffic activity, such as the shifts in traffic volumes among intersections, is important for ensuring air quality "hot spot" impacts are appropriately analyzed and mitigated. A discussion specifically identifying the major access routes to the existing airport, the major access routes under the master plan including access to the north terminal, and the traffic volumes on those routes both with and without the project would be helpful.

The truck activity associated with the fill for the third runway should be described in better detail so that the impacts upon the community and air quality can be better understood and the most appropriate mitigating measures selected. A description of the number of trucks per hour on the haul routes within the airport environs would be useful. The description should also include the access routes to the airport environs so that the localized and regional impacts are presented together.

Thank you again for the opportunity to comment on this project and your willingness to discuss these issues. Ecology wants to ensure that the project conforms to the SIP, there is appropriate mitigation, and the air quality around the airport is not endangered. If you have any questions, please contact Doug Brown at (206) 649-7082.

Sincerely,

Joseph R. Williams
Program Manager
Air Quality Program

cc: Bonnie Thei, EPA
Dennis McLerran, PSAPCA
Barbara Hinkle, Port of Seattle
Doug Brown, Ecology
Paul Carr, Ecology
Elizabeth Phinney, Ecology

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(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

March 31, 1997

Mr. Dennis Ossenkop
Northwest Mountain Region
Airports Division
Federal Aviation Administration
1601 Lind Avenue SW
Renton WA 98055-4056

Dear Mr. Ossenkop:

Thank you for the opportunity to review the draft supplemental environmental impact statement (DSEIS) for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport, proposed by the Federal Aviation Administration and the Port of Seattle (Port). Staff from several programs have reviewed the DSEIS and their comments are included below. The Department has also reviewed the air conformity analysis and comments are being sent under separate cover.

- Page 1-10: Construction Impacts -- The DSEIS mentions that On-Site Borrow Source #5 will not be used as a source of fill material. This appears to be in response to water-quality related concerns expressed in several comment letters. Ecology supports this decision as a way to avoid groundwater and drinking water contamination. However, later in the document, Borrow Source #5 is described as the future location of an employee parking lot (see page 5-5-7 and page A-2, Response to Comment). This proposed use could result in similar water quality concerns as were expressed in the comment letters. If this site is being considered for use as a parking lot (or for any other use), the effects should be fully analyzed.

- Page 1-11: Biotic Communities, Floodplains, and Wetlands -- Generally, Ecology looks for compensatory mitigation for wetland and aquatic resource impacts at or near the site of a proposed project. We understand the safety concerns behind the Port's decision to focus its mitigation efforts away from the airport, and we concur with the proposal to minimize "wildlife attractions" within 10,000 feet of any active runway. We also concur with the decision that mitigation for hydrologic functions lost due to the expansion project occur at or near the airport site. As part of the mitigation for lost hydrologic functions, however, we expect to see some habitat mitigation that will not result in danger to aircraft -- for instance, habitat for fish, amphibians, and small passerine birds that use the riparian areas. This section of the Final SEIS (FSEIS) should clarify that mitigation at or near the airport will

include some wildlife habitat for those species that do not present a safety hazard to aircraft. This should also be clarified throughout the document, especially in Section 5-5.

- Table, Page 1-11 -- This table includes a 1.7 acre wetland impact due to the South Aviation support Area (SASA). Ecology understands that the permit application being reviewed by the Corps of Engineers (Corps) does not include the SASA area, and that this area of wetland impact is not considered a part of the third runway expansion project. However, if the proposed SASA is likely to be considered for permit review in the near future, Ecology would support an effort by the Port to provide mitigation now for the potential 1.7 acre wetland loss. Including mitigation now in advance of this potential wetland loss could allow a successful mitigation site to develop before the impact takes place, and depending on the size and type of mitigation, could result in either a lower ratio of required mitigation or mitigation credit.

- Pages 4-6 and 4-7: Local Land Use Actions -- If a water quality certification is issued for the proposed project, it will be provisional upon compliance with all applicable state aquatic protection regulations, including those required by the State Environmental Policy Act (SEPA) and the Growth Management Act (GMA). The Port should work with the surrounding jurisdictions to ensure that comprehensive plans in those affected communities include recognition of the proposed airport expansion project and are in compliance with the GMA.

- Page 5-4-1: Construction Impacts -- Project-related impacts to wetlands or other waters of the state will be addressed during the 404/401 permit process. This includes any impacts at on- or off-site borrow sites used to supply fill material for the proposed project. Any proposed sources of fill material added after completion of this DSEIS should be fully analyzed in the FSEIS and/or the 404/401 permit review.

- Page 5-4-2: Off-Site Borrow -- Sites used to offload barged fill material for the proposed project may need a new shoreline permit, or may require that the proposed activity is authorized under an existing shoreline permit. This includes the Des Moines Creek conveyor system as described on page 5-4-6.

- Pages 5-4-11 and 12 -- All of the borrow sites will required to comply with the NPDES and State General Sand and Gravel Permit. This permit contains conditions, such as the requirement to implement an Erosion and Sediment Control Plan, that are intended to prevent impacts to waters of the state. The requirement to obtain these permits will be a condition of any water quality certification issued for the proposed project.

- Page 5-4-36: Table 5-4-8 -- Applicable provisions of the Construction Best Management Practices described in this table will probably be included as conditions of any water quality certification issued for this proposed project.

- Section 5-5: Biotic Communities, Wetlands and Floodplains -- This section will receive a fuller and more detailed review as part of the Section 404/401 permit review process and when final proposed plans are developed.

- Page 5-5-1 -- The DSEIS states that sections of two creeks will require realignment due to the proposed project. About 200 feet of Des Moines Creek will be realigned due to runway expansion and about 2,200 feet will be realigned due to SASA. Even if SASA is handled as a separate permit application, the Port should consider including the entire length of the realignment in its 404 permit application to the Corps if the SASA will be proposed in the near future. This may minimize impacts to the creek by allowing all the work to be done at once rather than in two or more stages.

- Pages 5-5-1 through 5-5-9 -- The project impacts to wetlands have been increased by nearly 20 percent, from 10.4 to 12.23 acres. Ecology staff spent two field days last year reviewing the impact areas and the proposed mitigation site. Most of the wetlands being affected are highly degraded wetlands in a highly urbanized area. Given the low quality of the affected wetlands, we believe the increase in impact area is not significant and can be mitigated. The hydrologic and water quality functions currently provided by the affected wetlands will be mitigated on-site, within existing drainage basins. The wildlife habitat-related functions provided by the wetlands will be mitigated for at the off-site mitigation area next to the Green River in Auburn. The wetland impacts will be closely examined during the Army Corps Section 404 permit process. Ecology will conduct a concurrent evaluation during the review for the Section 401 Water Quality Certification that is attached to the 404 permit. At that time, we will negotiate mitigation ratios and mitigation performance standards.

- Pages 5-5-2 and 5-5-9 -- The DSEIS describes two options for routing South 154th/South 156th Streets around the Runway Safety Areas (RSAs) at the north end of the proposed runway expansion. Option 1 would affect 2.34 acres of wetlands, and Option 2 would affect 3.04 acres of wetlands. These two options represent about one-quarter and one-third of the proposed project's direct wetland impacts. In addition, one proposed scenario includes routing the streets through a tunnel under the RSA, which would result in significant avoidance of wetland impacts. The DSEIS describes this scenario as the most costly, but there is no breakdown of the associated costs. These should be fully analyzed as part of the FSEIS and the Alternatives Analysis required through the Corps' Section 404 permit review.

- Pages 5-5-17 through 5-5-21 (also Page 5-7-4 and the Miller Creek Relocation Plan for Proposed Master Plan Update Improvements at Seattle-Tacoma International Airport [Parametrix, December 1996]) -- The DSEIS states that hydrologic functions (water quality, flood storage, and stormwater storage) lost in the Miller Creek Basin due to the proposed project will be mitigated with a replacement ratio of at least 1:1. This ratio should be increased if the proposed project will result in increased hydrologic inputs to the Miller Creek basin (e.g., increased "flashiness" of flows, change in overall conveyance of stormwater, etc.), or would result in a need for increased capacity to buffer exceedances of physical,

chemical, or biological water quality standards. In addition, the proposed relocation of Miller Creek, as described in the above-referenced Relocation Plan, shows that two rather severe angles are part of the main channel design. The design and contingency plan for the stream relocation should recognize that the stream will likely evolve into a different channel configuration with smoother curves and different accretion/deposition areas than the design calls for. The plan should allow for more "wiggle room" (literally) so the channel can locate itself based on the actual hydraulics of the stream.

- Appendix A, Page A-1 Response to Comment -- Ecology would likely support efforts by the applicant to include appropriate riverbank stabilization on the Green River as part of the mitigation for the proposed project. Part of our analysis during the water quality certification review is to determine whether the mitigation site will be successful, and bank stabilization may be necessary to ensure that the mitigation site is protected in a way to allow success.

- The DSEIS forecasts a 40% increase in jet fuel usage by the year 2010. The document does not discuss how this increase in fuel usage will be accomplished without causing further contamination of the soil and groundwater at Sea-Tac Airport. This issue should be addressed in the FSEIS or during the permitting process.

If you have questions regarding the above comments, please contact Mr. Mike Rundlett (206/649-7010) or myself (360/407-6907).

Sincerely,

David Bradley
Section Supervisor
Environmental Review and Sediment Management Section

EIS 953377
SEPA 9700799

cc: Mike Rundlett, NWRO
Dave Williams, NWRO
Tom Luster, CP
Lisa Zinner, NWRO
Roger Nye, NWRO
Erik Stockdale, NWRO
Scott Lamb, NWRO
Doug Brown, NWRO
Paul Carr, Air Quality
Elizabeth Phinney, CP

DOE-P-23

April 19, 1998

and to:
Washington State
Dept. of Ecology
Tom Luster -
same comments for
water Quality issues
herein.
MCL

U.S. Army Corps of Engineers
Regulatory Branch
PO Box 3755
Seattle, WA 98124-2255
Attn: Jonathan Freedman

Reference: 96-4-02325 Port of Seattle

These comments and questions supplement those submitted to you January 8, 1998, January 14, 1998 and those made at the public hearing held April 9, 1998 regarding the reference application.

This 404 permit application, now for seven years instead of the usual three years, must be denied until The Port of Seattle conducts and produces an alternative analysis that would reduce the impact to the Des Moines and Miller Creek Watershed, as well as to the underlying aquifers.

Enclosed is a copy of a letter that I have written to the U.S. Department of Justice in the context of Executive Order (EO) No. 12898 (59 Fed. Reg. 7629 (Feb. 16, 1994)). The EO directs Federal agencies to assure that procedures and actions are in place to make achieving environmental justice a part of their basic mission. The EO resulted from the fact that in certain communities Federal agencies have contributed to prolonging particular disparities by underenforcing laws, or by failing to take other remedial steps. The result is a polluted environment that is disproportionately borne by those communities.

The EO requires that Federal agencies review factors to determine if certain neighborhoods suffer disproportionate environmental risks as the result of past "underenforcement of state or federal health of environmental laws." Such "underenforcement" could occur if The Port of Seattle is not required to perform adequate alternative analysis, such as recently required by the Corps for the Emeralds Downs Racetrack and the Weyerhaeuser project in Vancouver. A Pierce County landfill application was denied due to unacceptable wetlands impacts and due to the County stating there were no suitable options. The Port has the viable option of making the proposed runway shorter which would reduce watershed impact and reduce the amount of needed fill.

The Corps must also consider The Port's recent record regarding environmental precautions, as demonstrated by their gross mismanagement of the north parking lot construction. This 404 permit is for a construction project that in terms of fill requirements dwarfs anything to date in the State of Washington. According to The Federal Aviation Administration's (FAA) Environmental Impact State (EIS), 23 million cubic yards (the lowest estimate) of fill are needed. From where? What is the fill quality? How deep are the Des Moines-Miller Creek bogs? Do you have the answers to those questions? Deny this permit until you do. Hopefully, along with the State Department of Ecology, The Corps will assess with facts and data what impact 23 million cubic yds of fill will have on top of the aquifers. The FAA's EIS is totally devoid of the word "aquifer."

This is incredible, since Riverton Heights Wells #1 & 2 draw water from the aquifers under The Port's land for the City of Seattle. The Safe Drinking Water Act (42 U.S.C. § 300f et seq, 6939b; 15 U.S.C. § 1261 et seq) requires that the appropriate Federal and state agencies closely regulate activities that may impact underground drinking water supplies. A scientific systemic view of the impacted water systems is required.

The National Environmental Policy Act (NEPA) and the Code of Federal Regulations, Title 40, states "Federal Agencies shall to the greatest extent possible . . integrate the requirements of NEPA with other planning and environmental review procedures required by law or by agency practice so that all such processes run concurrently rather than separately." (40 CFR 1500.2) The FAA's EIS for the Port's entire airport expansion program is under court challenge. How can the Corps issue the Section 404 permit without resolution of the court challenge in favor of the EIS? You are clearly in violation of Title 40 described, if you do so. It would be clear segmenting of the process. The only time The Port allowed concurrent public process was when the Washington Department of Ecology was included at the April 9th public hearing. This hearing was not originally planned, but the public outcry could not be ignored.

Two months after release of the May 1997 EIS, the National Marine Fisheries Services announced that certain Puget Sound salmon were candidates for listing under the federal Endangered Species Act. Can the Corps ignore that situation? The communities surrounding the airport have been struggling to get the Port to improve and protect salmon streams for 25 years!

Section III, paragraph C of the EO states that the Justice Department will also make sure that Federal agencies promote and protect community members' rights to participate meaningfully in environmental decisionmaking that may affect them. Clearly, when the U.S. Army Corps of Engineers meets privately with The Port of Seattle and their paid consultants and does not include the impacted communities that goal is *grossly ignored.* This permit process has not provided for meaningful public inclusion. The public hearing was strictly one way. Did you preclude public inclusion when you met only with The Port? When does meaningful public inclusion occur? I have yet to even receive a reply from the Corps to previous questions regarding this permit. I did not and do not intend for my questions to be ignored and merely made part of some public record, shelved for posterity.

Specifically, my January 14, 1998 letter provided The Corps with a Port of Seattle Memorandum Item No.8c dated January 13, 1998 which stated that the wetlands proposed for out-of-basin mitigation could result in payment of cash to the City of Auburn instead of wetlands. Is that acceptable to the Corps and to the communities? The terms are outlined in the Port's Interlocal Agreement with the City of Auburn. The Port's statements that wetlands <u>have to be</u> mitigated out-of-basin due to airport safety is deliberate obfuscation of facts and a cynical attempt to make the general public fearful. No one is proposing a lake! Sea-Tac Airport is already surrounded by Angle, Tyee, Burien, Bow, Arrow, Lora, Arbor, and Tub lakes.

I'm writing this as a private citizen, not as a lawyer, not as a developer. I am employed by a major Puget Sound business, and I appreciate the value of air transportation. I am also a passionate advocate for equitable sharing of the resulting pollution

The E.O. clearly states that communities that have experienced more than their fair share of pollution, as the communities surrounding the airport have compared to the rest of Puget Sound, are equally entitled to a clean air and water for themselves, their families, and for future generations. The airport communities have struggled to cohabit with their neighbor and have, up until now, borne the brunt of Puget Sound's growth. We have to draw the line with this permit and stop the continued wetlands degradation. Years of construction activity alone could finish off the beleaguered Miller-Des Moines Creek watershed and dramatically increase air, water, and noise pollution to the surrounding communities.

I hope The Corps, along with the addressees copied below, insists on additional facts and data and insists on meaningful alternative analysis. Anything else would be a gross disservice to the thousands of citizens in Queen Anne, Rainier Valley, Tukwila, Sea-Tac, Vashon Island, Federal Way, Des Moines, Normandy Park, Burien and White Center.

Maria Little

Maria C. Little
2650 SW 151st Place
Seattle, WA 98166

Enclosure: U.S. Department of Justice ltr dtd 4/19/98

Cc: U.S. Senators: Patty Murray
Slade Gorton
U.S. Congressmen: Adam Smith
Norm Dicks
Washington Governor Locke
Washington State Representatives:
Julia Patterson
Karen Keiser
Jim McCune
Dow Constantine
Mike Heavy
Bob Sump
Washington Department of Ecology - Tom Luster
King County Councilmen:
Pete von Reichbauer
Chris Vance
Greg Nickels
Kent Pullen
King County Executive Ron Sims
Frank D. Ellis, Inspector General, Corps of Engineers
U.S.Environmental Protection Agency
Cascade Chapter of the Sierra Club
John Rankin, City of Normandy Park
Nick Licata, Seattle City Councilmember
U.S. Department of Justice
Federal Aviation Administration

and. subsequently, the Corps and the DOE held a joint public hearing on April 9th. Unfortunately such public hearings are one-way; questions are not permitted, unless for minor clarifications. It was revealed at the public hearings that The Corps has met several times with the applicant, The Port of Seattle and the FAA, without community representation.

Both agencies have neglected any mention of their obligations under the Safe Drinking Water Act (42 U.S.C. § 300f et seq, 6939b; 15 U.S.C. § 1261 et seq). The estimated 23 million cubic yards of fill (lowest estimate) of fill required to construct the additional runway will be over aquifers that supply back-up to the city of Seattle through Riverton wells #1 and #2. The EIS and the 404 and 401 permit applications do not have the word "aquifer" anywhere, nor any facts and data regarding impacts to the aquifer from this incredible amount of fill – 23 million cubic yards.

The exclusion of community involvement is contrary to the intent of the EO, Section III, paragraph C, which states that the Department of Justice will "promote and protect community members' rights to participate meaningfully in environmental decisionmaking that may affect them." The main intent of this EO is to be sure that certain neighborhoods do not suffer disproportionate risks to environmental hazards. I have enclosed articles outlining the EPA's concerns in the past regarding noise pollution. Unfortunately, the neighborhoods surrounding this airport have little or no political clout in the Puget Sound area. They are predominately lower-income neighborhoods relative to the rest of Puget Sound.

I would like to be contacted immediately regarding these concerns. There is a gross environmental injustice occurring in the Puget Sound region. It would be prudent on the Department's part to ensure that potential environmental damage is mitigated, as opposed to having "20/20 hindsight" once the potential disasters are realized.

Sincerely,

Maria C. Little
2650 SW 151st Place
Seattle WA 98166
(425) 965-6908

Attachments: as described

April 19, 1998

Office of the Associate Attorney General
Department of Justice, Room 5214
10th & Constitution, N.W.
Washington, DC 20530

Dear Associate Attorney General Fischer:

Subject: Executive Order (EO) No. 12898 (59 Fed. Reg. 7629 (Feb. 16, 1994))

I am submitting a request for review of the enforcement actions required by the Clean Water Act (CWA) (33 U.S.C. 1251 et seq.) of the U.S. Army Corps of Engineers and of the U.S. Environmental Protection Agency (EPA).

The construction project requiring CWA, Section 401 (33 U.S.C. 1341), Section 402 (33 U.S.C. 1342) and Section 404 (33 U.S.C. 1344) permits is summarized in attachment 1, Federal Aviation Administration's Executive Summary of the *Seattle-Tacoma International Airport draft Environmental Impact Statement (EIS) for Proposed Master Plan Update Development Actions.* The various review processes have been ongoing since 1995. A case has been filed with U.S. court of Appeals at San Francisco challenging the FAA's final EIS approval. It has not been scheduled.

My letter is primarily focused on the most recent permit review processes conducted by the Army Corps of Engineers and those processes contribute to the current disproportionate environmental pollution burden borne by the communities surrounding the Seattle-Tacoma airport. I have local news articles that are somewhat useful in describing the environmental issues challenging these neighborhoods. They are not legal documents. I am not a lawyer, but I am extremely concerned that environmental justice is not being served by the Federal agencies involved in these processes.

Attachment 2 , along with my most recent comments, is a copy of the original public announcement for a 30-day comment period starting December 19, 1997 and ending January 20,1998. I received this notice on December 23rd, two days before Christmas! There was no planned public hearing. The last page of the public announcement was an announcement by the State of Washington Department of Ecology (DOE) that they had the CWA Section 401 permit responsibility.

The original public announcement lacked a direct explanation of DOE's role. or that comments should also be provided to the DOE. The original announcement made no mention of a public hearing. This resulted in a huge public response,

DOE-P-24

Margaret Van Gasken
418 So. 212th
Des Moines, Wa. 98198
April 28, 1998

To: Washington State Dept. of Ecology
PO Box 47600
Olympia, Wa. 98504-7600

Attention: Tom Lucster

We are concerned citizens living at this address on North Hill of Des Moines, what once was 60th and we still own our former-our first home-in Normandy Vista at 136 So. 197th purchased in 1957 - so we will be severely impacted by Sea-Tac Airports' plans to trade our wetlands area to Auburn.

I skipped a very important church service on April 9th - Maundy Thursday / Holy Thursday - I am a choir director - to attend the "army Corps of Engineers hearing on "Destroying wetlands around Sea-Tac." I don't pretend to understand all the maps and charts made available and tried to listen intelligently to over 2 hours of the presentations. I welcomed the opportunity for you to see us south end residents and was impressed by the work that went into so many reports and impressed by political leaders talking from the heart as concerned citizens from the area in which they live - concerned about the loss of irreplaceable Des Moines Creek, Miller, and other creeks and lakes in the vast mitigation area.

My husbands family home at 22032 10th Ave. So, Des Moines, built in 1920 and which we now own and his grandfather's home built in the early 1890's at 22,22nd and 4th ave South, next to Overlook Park and still in the family, will also be severely impacted by what happens to Des Moines Creek and the plans to barge contamined dirt from Maury Island (we were aware of arsenic there from the smelter as far back as studies at UPS in 1947)

DOE-P-25

April 28/98

Washington State Dept. of Ecology
att Tom Luster

I want you to know that I wholeheartedly support my wifes letter!

My main concerns are.

1 — What will happen to the fish that have, so lovingly been taken care of for many years?

2 — What ~~will~~ the wetlands change do to the streams leading from the area?

3 — If the port is allowed to convey (contaminated) dirt up Des Moines creek what will be the impact on the creek itself?

4 — what will be the impact on people with the conveyor going day + night?

Thank you for reading my letter

Marsha Van Gasbeck
416 S 212
Des Moines Wa 98198

AR 037136

DESTRUCTION *to* RECONSTRUCTION:

Restoring the Everglades

FROM IPCA MAGAZINE

More than 50 years ago, the Army Corps of Engineers undertook a flood control project that drastically altered this distinctive ecosystem. Today, Congress has ordered that same agency to undo the damage.

BY DAVID HELVARG

LARRY ULRICH

THE WATCHFUL EYES of alligators, the slither of snakes, the startling break of snowy egrets taking wing from a hardwood hammock, the struggle of a black-feathered anhinga to swallow a fish half its size and then collapsing on its belly, a victim of its own gluttony. These images are more than Kodak moments. They are reminders of the unique wetland ecosystem that is now so at-risk that the 1.5-million-acre Everglades National Park has been called the most endangered national park in America. As

CONNIE TOOPS

The same year Congress established Everglades National Park, it directed the Army Corps to complete a massive flood control project.

AR 037137

"UNDO THE DAMAGE."

DOE-P-26

Now the Army Corps of Engineers
built flood control gates in the
Florida Everglades they did so with
good intentions. Now they are
removing the gates to restore the
Everglades.

The Port of Seattle wants to fill in the Laura Lake/Miller Creek ecosystem with the Third Runway! This would be destruction of this wet land ecosystem.

Seattle Resident

Donald Gaither
1002 So. 170TH ST.
Seattle Wa 98148

We are concerned about shortage of clean drinking water. Our Highline Water District and Federal Way area water districts have had difficulty for years supplying the area with enough water - they need to tap into Seattle water for a major % of their supply and the shortage a available aquifers - "#1 + 2" shut-down.

2

We are concerned about the air pollution constantly raining down on us from the air. We are concerned about the noise pollution.

3

We realize there needs to be a balance between quality of life and economics but destroying our Des Moines, Normandy Park, Burien and Sea Tac area wetlands cannot be a viable answer to a healthy environment for us, our children, and our grandchildren who live in this area. We know much local effort has gone into reestablishing fish in Des Moines Creek and into building a walking trail from So. 200th to Des Moines treatment plant on 213th 214th?

Please do not allow destruction of these wetlands. Trading them for acreage in Auburn does not seem wise, does it? They already have too many acres from the Emerald Downs situation. My brother-in-law lives on Green River in north Auburn and they don't want more acres.

Please do not allow a plan which can cause irreversible damage. We live in this area all our lives and know the Sea-Tac Airport commissioners, board have not honored many previous promises, like the 60's 2nd runway promises.

Thank you for "listening" to this my first letter to your department on a very important issue. I realize you have many coastlines and problems to consider. Sincerely, Margaret Van Dusen

AR 03139

DOE-P-27

Dear Sirs

I want to be on record protesting a proposed new curvature in So. 156th Ave. The proposed new curvature would swing So 156th thru my back yard to the northeast, wiping out my landscaping, and over 100 feet of serene waterway of picturesque Miller creek. The present bridge over Miller Creek cuts across at a 90 degree angle, minimizing creek damage. The proposed new curvature cuts across this beautiful wateway at a diagonal direction, unnecessarily destroying one of the most scenic stretches of Miller Creek. Keeping the road straight over this stretch of waterway keeps environmental damage to a minimum.

Miller Creek is a a playground and spawning ground for many species of birds and animals. I have seen mallard ducks, river otters, blue herons, crawdads, and spawning salmon using this area of Miller Creek. What a shame it would be to destroy this captivating area, just to make an unnecessary sweep in the road; just to keep highway speeds up. If anything ,cars need to go slower over this section, not faster. I have seen two vehicles plow thru the present bridge railings going too fast.

Miller Creek possesses many attractive water garden plants.. Examples are: ferns, sweet grass, water iris, water mint, rush grasses, sweet gallingale, and various water lilies. It would be a mistake to allow an unnecessary new road and bridge to destroy at least 100 feet of scenic Miller Creek. Please advise the Port come to up with an alternate solution.

Scott McBreen
15458 Des Moines Mem Dr
Seattle Wa 98148
206 244 8116

Diane J. OLson
16408 8th So.
Sea-Tac. Wash.
98148

Permit Coordination Unit
Department of Ecology
P.O. Box 47703
Olympia Wa. 98504-7703

To whom it may concern.

The proposed drainage channel between 160th street and 168th street on plan sheet 18. In that area there are adult Chinook Salmon. Steelhead Salmon as well as Trout.

The erosion. sedimentation and contaminants from construction. construction machinery and glycols. have to have an effect on fish. Those fish will be eaten by: Bald Eagles. Great Blue Heron. possibly Goshawks. Red Tail Hawks. Peregrine Falcon. Great Horned Owls. Racoon and people.

The use of concrete will also effect: fish. wildlife the ecosystem and people. even down stream from the buyout area. There was a portable concrete plant on the airport property in the past. Which might explain the milky color in Miller Creek. at times when the concrete plant was there.

I have noticed. in the winter when the Airport is using glycols. for deicing. the Great Blue Heron will not come to my area of Miller Creek. The Herons are like the guardians of the ecosystem. As soon as the ecosystem starts to deteriorate. the Herons are the first to leave. They return when the glycols are not being used. How much of the glycols can the wildlife ingest before it kills them?

Endangered and threatened bird species. also some of the other birds need old growth trees for their existence. Loss of trees means more pollution and more noise around the airport.

It doesn't take a Rocket Scientist to see that destruction of homes. trees. filling for a third runway. construction of Airport facilities. noise. dust and pollutants will effect wildlife. including threatened and endangered species. people and possibly the Hiline Aqifer.

Has there been a geological study done on the fill area of the proposed third runway? To see what the effects the fill might have on the underlying aquifer? It obviously is going to add a lot of weight or pressure to it.

In my yard. springs shoot out of the ground. at times 10 to 12 inches. sometimes even in the summer. My property is very close to the watertable. If this spring water can't make its way to Miller Creek. what will happen? Maybe a swamp? There are many springs in the area that I live. in the westside accusition area.

The Hiline Aquifer is used by some water districts. for drinking water. this includes the City of Seattle.

The Port of Seattle (Sea-Tac Airport) is known to be an excessive polluter. If the pollution hasn't already reached the Hiline Aquifer. it will.

About the time the second runway was being built. Miller Creek became horrendously polluted. I can't say why. but you couldn't touch the water in the creek without getting sores on your skin. This happened to me and my daughter. No fish were there anymore. this lasted for about five years. Now the fish are back. I want to keep it that way! The westside of Sea- Tac Airport is a wildlife paradise. that can't be replaced.

For 26 years I have left aprox. one fourth of my property in it's natural state and would have left more if not for a sewer main being put through my property. So I could protect and preserve the wildlife. I am outraged with the plans the Port of Seattle has for this area.

The Bald Eagles wouldn't be living in this area if there wasn't an abundance of food: Chinook Salmon. Steelhead Salmon and Trout.

Relocating Miller Creek. piping it or making it into a concrete ditch. certainly won't enhance Salmon habitat. or the habitat of the Salmon's food. Piping the creek would deprive them of fresh

air and sunlight.

The site where Emerald Downs sits was once a wetland. (not as complex as this one) and the wetlands there are still trying to come back. Every year they have to redo the track. The artificial wetlands that were made to replace the original. still doesn't have the wildlife the original wetlands had. People don't usually know what they have to loose until its gone. So lets not loose our wetlands. Making artificial wetlands is not a exact science. Wetlands that are to be constructed in Auburn. will not help the wildlife in this area. It would be better to put a satellite airport in another area and leave the wildlife here alone.

I am not going to give any alternatives to the present wetlands. because there isn't any. I am going to give alternatives to the third runway.

A new regional airport. which will be needed even if there was a third runway. So why spend all the money. (the costs are sky rocketing) for the most expensive runway in U.S. history. when it won't achieve much or make much of a difference

I think a new regional airport on Indian land should be proposed to one of the larger tribes. The land could be leased for a hundred years with the option for more time. It would benefit the public and bring much needed financial help to the tribe. There would be jobs for Native people. Hotels. restaurants. motels. car rentals and other businesses would want to lease land for their businesses too. It would be a win. win situation. that many would benefit from.

Another alternative would be to buyout one of the smaller airports and expand it.

A new regional airport if located in King County should be further east of Sea Tac Airport and Boeing field. which wants to expand their 800 foot runway to 10.000 feet. to the south. Which will bring those two airports closer together and cause more air traffic congestion.

Every large project that has been built or is being built at this time. seems to be built in an area that would cause traffic congestion. Large projects need to be spread out from one another. Know one wants to spend hours trying to get from one place to another. or have a midair collision.

My objective is to stop the buyout of the westside of Sea Tac Airport. to save the wetlands. wildlife and the probable pollution of the Hiline Aquifer. To have the State of Washington pick a suitable site for a new regional airport. Which we all know will be needed anyway. To stop the sky rocketing cost of a third runway. that won't make much of a difference. That taxpayers will likely end up paying the majority of. To try to install some foresight and future vision to this absurd project. which is totally illogical.

The Port of Seattle concerning Eminent Domain.

The State of Washington law says. private property shall not be taken for private use. So why is Boeing and other business on Port of Seattle property accuired by eminent domain? Isn't that like profiteering and why has it been allowed when it is agains't the law? Is this going to happen in the westside acquisition area?

My husband is the sole support of my family. (I have a permanent disability from an injury 30 years ago) works for a major road construction company in the area. He has been told. construction of the third runway will put the company out of business. The reason being. it would not be economically feasible to haul materials from such a great distance. The extra man hours involved and increased costs. Since the third runway would take so much fill materials and deplete the local sources. The construction of a third runway will likely effect other companies and their employees. reducing jobs in the area. Probably including increased costs of road and freeway construction. for: Washington State. the five counties the third runway fill material is to come from and the cities in the five counties.

LIST OF WILDLIFE IN THE PROPOSED THIRD RUNWAY BUYOUT AREA.

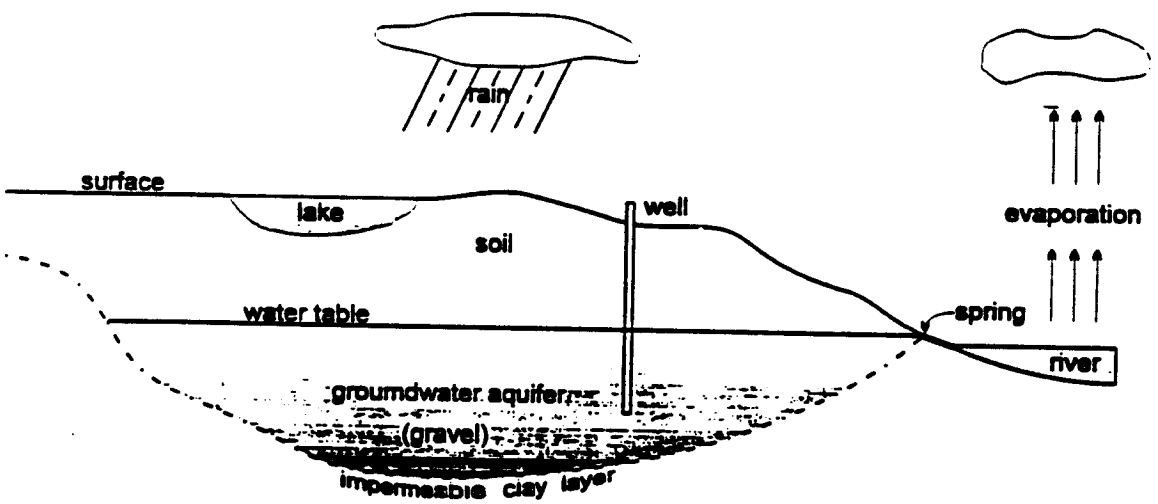
BALD EAGLES
PEREGRINE FALCON
GREAT HORNED OWL
GREAT BLUE HERON
RED TAIL HAWK
GOSHAWK
DUCKS (mostly mallard)

CHINOOK SALMON (adults up stream from me)
STEELHEAD SALMON (adults up stream from me)
TROUT
CRAWFISH
EEL
TREE FROGS
WATER FROGS
PERIWINKLE
OPPOSOM (some albino)
SKUNK
COYOTE
RED FOX
RACOON
RABBIT
GRAY SQUIRREL
RING NECK DOVE
CROW
BLUE JAY
RING-NECK PHEASANT
CALIFORNIA QUAIL
BARN SWALLOW
CHICKADEE
OREGON JUNCO
HOUSE SPARROW
HUMMINGBIRDS (some varities)
PILEATED WOODPECKERS
RED-SHAFTED FLICKERS
DOWNY WOODPECKERS
ROBIN (have seen albino in the area)
VARIED THRUSH
STARLINGS
BLACK-HEADED GROSBEAK
EVENING GROSBEAK
GOLD FINCHES
ROFOUS-SIDED TOWHEES
AND PROBABLY SEVERAL OTHERS I HAVE LEFT OUT.

Groundwater Is Important

Less than 5 percent of the fresh water in the United States is surface water in lakes, streams and rivers. More than 95 percent of our fresh water is underground. This groundwater is the primary source of drinking water for 90 percent of rural residents. At least three-quarters of all municipal water supply systems use some groundwater. Many industries use well water in their production processes. At least 30 percent of the water which farmers use for irrigation is groundwater. We depend on groundwater. We need it to be clean and free of contaminants.

A Look Underground



Beneath the surface of the earth are many different materials, including soil, sand, gravel, clay, shale, sandstone and hard rock. These materials are usually in layers. The types of materials, and the size and order of the layers varies from location to location. The figure shows a typical arrangement.

AR 037144

Groundwater Movement

Where does groundwater come from? It's water that ***percolates down*** from the surface, passing through permeable layers of soil, sand and so forth until it is stopped by an impermeable layer of clay or solid rock.

Surface water and groundwater are not the same thing, but they are related. Surface water can percolate down through the soil and become groundwater. When groundwater comes out in springs it becomes surface water, flowing into lakes and steams. Surface water evaporates, forming clouds. The water in clouds falls as rain. Rainwater soaks into the ground and percolates down to join the groundwater again. The groundwater can again emerge in springs on the surface, and so on. This is called the ***hydrologic cycle.***

How long does it take for water from the surface to percolate down to an aquifer? This depends on how permeable the layers are that the water passes through, and how far it is from the surface to the water table.

Groundwater can also move sideways through permeable layers. However, its movement is very slow compared to the way water moves in a lake or river on the surface. In the same way that the baffles in a fuel tank keep the liquid from sloshing around, the pieces of sand or gravel in the permeable layer act like millions of tiny baffles slowing down the movement of groundwater. Groundwater movement may be as slow as a few inches per day.

Because groundwater moves so slowly, it takes a very, very long time for contaminants in groundwater to wash out.

Groundwater can flow through cracks in rock, or between rock layers. In this case its movement may be faster.

Groundwater can also flow through artificial channels such as wells and mine shafts. These may allow water to get past otherwise impermeable layers.

In some places the water table extends close to the surface. Then groundwater discharges (pours out) to form a natural ***spring***, or may flow directly into nearby lakes and streams. We also pump groundwater to the surface through ***wells.***