

**Declaration of  
Gina Marie Lindsay**

**AR 012984**

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POLLUTION CONTROL HEARINGS BOARD  
FOR THE STATE OF WASHINGTON

AIRPORT COMMUNITIES COALITION

Appellant,

No. PCHB 01-0133

v.

DECLARATION OF GINA MARIE  
LINDSEY

DEPARTMENT OF ECOLOGY and  
THE PORT OF SEATTLE,

Respondents.

GINA MARIE LINDSEY declares as follows:

1. I am the Director of Seattle-Tacoma International Airport ("STIA") and have served in that capacity since September 1993. I am over the age of 18, have personal knowledge of the facts set forth in this declaration, and would be competent to testify to them if necessary.

2. Part of my current job responsibilities include evaluating the ability of STIA to meet the needs of the Puget Sound region in terms of air freight and commercial airline capacity in a timely and effective manner. Where deficiencies are identified, my job is to assemble and present the Commissioners of the Port of Seattle with a plan to correct the deficiencies and to prepare an implementation strategy and timetable for the necessary facility improvement. The Master Plan Update process conducted by the Port has served as a principal means to identify and correct deficiencies at STIA.

DECLARATION OF GINA MARIE LINDSEY - 1

**FOSTER PEPPER & SHEFELMAN PLLC**  
1111 THIRD AVENUE, SUITE 3400  
SEATTLE, WASHINGTON 98101-3299  
206-447-4400

ORIGINAL

1           3.       STIA currently faces immense challenges and deficiencies. It plays a crucial role in  
2 the region's transportation infrastructure, namely to provide the needed capacity for individuals to  
3 travel and for goods to move to and from this region. STIA thus serves an indispensable role for the  
4 travelling public and region's businesses.

5           4.       STIA's current deficiencies urgently require immediate corrective action. These  
6 deficiencies include, but are not limited to:

- 7           —       delays in aircraft arrivals and departures that occur in poor weather conditions when  
8                   only one runway can be used;
- 9           —       inadequate parking facilities to address existing and projected demand;
- 10          —       inadequate road access for south airport traffic; and
- 11          —       inadequate terminal facilities to accommodate existing and projected passengers.

#### 12   **The Master Plan Update Projects**

13           5.       The purpose of the Port's Master Plan Update projects was succinctly stated by the  
14 Federal Aviation Administration (FAA) in its 1997 Record of Decision on this project:

15           "As documented in ... the Final Environmental Impact Statement, ... the present runway  
16           configuration, with two closely-spaced runways, is currently responsible for significant  
17           airside delays, particularly during poor weather conditions, and is forecast to be responsible  
18           for increasing such delays in the future."

19           As approved by both the Puget Sound regional planning authorities and by the FAA, the Port is  
20           proposing to reduce existing and future airport delays by constructing improvements pursuant to a  
21           Master Plan Update adopted by the Port and the FAA in 1997. These improvements include the  
22           following: a new 8,500-foot parallel air-carrier runway located west of the existing runways; a 600-  
23           foot extension of Runway 34R; extension of runway safety areas ("RSAs") at the ends of the  
24           existing runways; terminal improvements and expansion including the development of a new  
25           terminal, parking, and access improvements north of the existing terminal; the South Aviation  
26           Support Area (SASA) to accommodate aircraft line maintenance and air cargo facilities; and  
          relocation, redevelopment, and expansion of support facilities.

1           6.       Some of the Master Plan Update projects will involve the discharge of fill material  
2 into waters of the U.S., which requires a §404 permit from the U.S. Army Corps of Engineers. This,  
3 in turn, triggered the need for a §401 certification from Washington State Department Ecology. It is  
4 important to note that the Port's planned improvements at STIA include a wide range of projects,  
5 only some of which involve discharges into waters of the U.S. For example, the Port is  
6 implementing extensive terminal, ground transportation, and other improvements that involve no  
7 discharge of fill material into waters of the U.S., and thus do not require §404 approval or §401  
8 certification.

9           7.       Pursuant to the FAA-approved Master Plan Update, the Port has begun improvements  
10 at STIA in upland areas where §404 permit or §401 approvals are not required. Some of these  
11 improvements, such as expansion of the parking garage, are unrelated to any projects that require  
12 §404 approval. Other improvements, such as the placement of fill in upland areas for the Third  
13 Runway, are related to projects that require §404/401 approval. In beginning these improvements,  
14 the Port recognizes that this construction is being done at the Port's risk. The need for these  
15 improvements is so great, and the time constraints so severe, that the Port concluded that  
16 construction must begin without delay.

17           8.       With regard to those aspects of its improvements that do involve discharges of fill  
18 material into waters of the U.S., the Port has proposed extensive mitigation to restore and address  
19 impacts to existing wetlands, to protect streams, to develop new wetlands, and to construct  
20 stormwater facilities that will detain and treat stormwater. For example, the Port proposes to restore  
21 wetlands at the Vacca Farm site just west of the new runway and at the Tye Valley Golf Course just  
22 south of the runways, and to establish and preserve vegetated riparian buffers on Miller and Des  
23 Moines Creeks to protect instream habitat and water quality. Mitigation actions at the Vacca Farm  
24 site are designed to provide approx. 17 acres of aquatic and riparian habitats, including 6.60 acres in  
25 wetland restoration; 5.70 acres in wetland mitigation; and 4.85 acres of buffer mitigation. Projects in  
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1 the Des Moines Creek basin are designed to restore wetlands and stream functions. Approx. 4.5  
2 acres of wetland mitigation will occur in the Tyee Valley mitigation area and approx. 1.0 acres will  
3 occur in the west branch Des Moines buffer. Approximately 5 acres of buffers will be established  
4 along Des Moines Creek at the Tyee Valley site.

5 9. The Port will provide mitigation to the Miller Creek aquatic habitat, by providing  
6 instream habitat and increased channel length, and will create a trust fund for improvements to the  
7 Miller and Des Moines Creek watersheds. In addition, the Port will eliminate residential,  
8 commercial, and agricultural uses in the Miller, Walker, and Des Moines Creek basins that are  
9 currently contributing pollutants to those creeks.

10 10. The Port will also construct wetland mitigation off-site on a 67-acre parcel in the City  
11 of Auburn, especially for mitigation of wildlife habitat functions. Approximately 17.2 acres of  
12 forested wetlands, 6 acres of shrub wetlands, 6.2 acres of emergent wetlands, 0.6 acres of open  
13 water, and 19.5 acres of emergent wetland habitat will be created or restored. Overall habitat  
14 functions of these wetlands will be protected by providing approximately 11.9 acres of forested  
15 buffers around the perimeter of the site and approximately 4.0 acres of upland habitat within the  
16 inner portion of the Auburn site.

17 11. In addition, the Port proposes to replace the water storage function of the impacted  
18 wetlands, as well as replace the water quality treatment functions of those wetlands. The Port also  
19 proposes to construct the third runway embankment in a manner that includes an internal drainage  
20 layer to maintain recharge and natural groundwater flow. The Port will maintain existing low stream  
21 flows using stored stormwater and provide new floodplain storage to replace any storage eliminated  
22 for construction of the third runway embankment.

23 **Prior Litigation Upholds Master Plan Projects and Port's Extensive Mitigation.**

24 12. In addition to the extensive stormwater, water quality and wetland mitigation  
25 discussed above in connection with the §401 Certification and §404 permit process , and as  
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1 specifically recognized in the earlier court decisions regarding the Port's overall Master Plan Update  
2 projects, the Port is providing extensive mitigation for noise impacts, air quality impacts,  
3 construction impacts, land use impacts, transportation impacts, and other mitigation for the impacts  
4 of the planned development at STIA.

5 13. The Airport Communities Coalition (ACC) has brought a string of lawsuits  
6 challenging every agency and Port decision related to the third runway and Master Plan Update  
7 improvements at STIA. Not surprisingly, the goal of the ACC, as stated in the Interlocal Agreement  
8 forming the ACC, is "To stop the construction of any additional runways at Seattle Tacoma  
9 International Airport." A copy of the Interlocal Agreement forming ACC is attached as Exhibit A to  
10 this declaration.

11 14. In one action, the ACC challenged the decision of the Puget Sound Regional Council.  
12 The PSRC is the regional transportation planning body for the Puget Sound region. As described in  
13 more detail below, the PSRC had decided, by overwhelming majority vote, to include plans for a  
14 third runway in the Regional Transportation Plan. That decision was appealed by ACC. The PSRC  
15 decision was upheld by the King County Superior Court, and was further upheld on appeal by the  
16 Washington State Court of Appeals Division One in Case No. 42306-1-I. A copy of the Division  
17 One opinion is attached as Exhibit B to this declaration.

18 15. The ACC also challenged the Port's decision to proceed with the Master Plan Update  
19 projects, the Port/FAA environmental review for that decision, and the decision of the Central Puget  
20 Sound Growth Management Hearings Board (the Board has determined that STIA was an essential  
21 public facility and that ACC member Des Moines could not attempt to prohibit STIA expansion by  
22 passing anti-third runway provisions in its comprehensive plan). The King County Superior Court  
23 also upheld all those decisions, and made specific findings regarding the extensive mitigation  
24 provided by the Port as part of the Master Plan Update projects. A copy of that King County Court  
25 decision is attached as Exhibit C to this declaration. That decision was upheld by Division One of  
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1 the Washington State Court of Appeals in Case No. 43100-5-I. A copy of that Division One opinion  
2 and the Order Granting Motion For Reconsideration In Part And Amending Opinion are attached as  
3 Exhibit D to this declaration.

4 16. Approval of the Federal Aviation Administration ("FAA") was also required for the  
5 third runway and other Master Plan Update improvements. On July 3, 1997, the regional  
6 administrator for the FAA's Northwest Mountain Region issued the FAA's Record of Decision  
7 approving the project -- Record of Decision for the Master Plan Update Development Action Sea-  
8 Tac International Airport (July 3, 1997) (the "ROD"). The ROD provides appropriate mitigation for  
9 several distinct aspects of the project. The review in the ROD was based upon the EIS and included  
10 a list of mitigation measures for the Port covering air, water quality, stormwater, construction,  
11 groundwater, and hydrology issues.

12 17. The ROD also contained an analysis of the impacts of the project and a list of  
13 mitigation measures required by the FAA. As required by federal law, the ROD concluded that "all  
14 practical means to avoid or minimize environmental harm have been adopted through appropriate  
15 mitigation planning." (ROD at p. 44). The ROD also set forth additional monitoring and  
16 enforcement programs. The ROD mitigation measures include noise, land use, archeological,  
17 cultural and historic resources, social and induced socio-economic impacts, air quality, water quality,  
18 construction, erosion and sedimentation control, wetlands, flood planes, surface transportation,  
19 plants and animals, services/utilities, earth, hazardous substances, and construction impacts. In  
20 Appendix F, the ROD includes a graphic summary of the mitigation measures required by the FAA  
21 based on the FEIS/FSEIS. A copy of the ROD is attached as Exhibit E to this declaration. The ACC  
22 appealed the ROD to the Ninth Circuit Court of Appeals, which upheld the FAA's ROD in Ninth  
23 Circuit Case No 97-70953 (November 24, 1998 Memorandum Opinion). A copy of that unpublished  
24 Ninth Circuit opinion affirming the ROD is attached as Exhibit F to this declaration.

25 **AR 012990**

1 **The Public Process Leading to Project Recommendation.**

2 18. The proposal to construct a third runway and other improvements at STIA was  
3 arrived at after years of study, debate, and decision-making by governmental bodies and elected  
4 officials in the Puget Sound region.

5 19. In 1989, the Puget Sound Regional Council and the Port appointed the 39-member  
6 Puget Sound Air Transportation Committee (“PSATC”), with representatives from cities and  
7 counties throughout the region, aviation industry experts, citizens, and the State of Washington. The  
8 purpose of the PSATC was to develop a regional solution to the region’s worsening air traffic  
9 capacity problem. The PSATC reviewed a wide range of options, including replacement airports,  
10 supplemental airports, new technologies, demand management, and high-speed rail. The PSATC  
11 prepared a programmatic environmental impact statement (“EIS”) examining the potential  
12 environmental impacts of the studied alternatives.

13 20. In 1992, the PSATC issued its final report and final EIS, recommending a multiple  
14 airport system that included a third air carrier runway at STIA. In accordance with the PSATC  
15 recommendation, the Port prepared a comprehensive update to its Master Plan to address the long-  
16 term facility needs at the airport.

17 21. At the same time, the Port and the FAA entered into a memorandum of agreement to  
18 jointly prepare a project-specific EIS that would meet the requirements of both the National  
19 Environmental Policy Act and the State Environmental Policy Act. The Draft EIS for the Proposed  
20 Master Plan Update Development Actions at STIA was issued in April 1995, and the Final EIS was  
21 issued in February 1996. Subsequently, in response to new and higher forecasts of aviation demand,  
22 the Port and the FAA prepared and issued a supplemental EIS. The Draft Supplemental EIS for  
23 Proposed Master Plan Update Development Actions was issued in February 1997, and the Final  
24 Supplemental EIS was issued in May 1997.

25 22. Simultaneously with these EIS processes, the Puget Sound Regional Council  
26 undertook a review and decision process culminating in the adoption of PSRC Resolution A-93-03



1 which stated: "That the region should pursue vigorously, as the preferred alternative, a major  
2 supplemental airport and a third runway at STIA." The PSRC then conducted, over the course of a  
3 year, an evaluation and public review of twenty-six existing and potential new airport sites. The  
4 PSRC concluded in October 1994 that a supplemental airport was not feasible. Following further  
5 deliberations, in July 1996, the PSRC amended the Metropolitan Transportation Plan to include a  
6 third runway at STIA.

7 23. In 1996, the Port submitted to the Army Corps of Engineers a Joint Aquatic  
8 Resources Permit Application (JARPA) for a §404 permit and §401 certification and, in 1997, the  
9 Army Corps of Engineers issued a public notice of the Port's application. In April 1998, the Corps  
10 and Ecology conducted the first of three joint public hearings on the application. A significant  
11 number of public comments were submitted to the Corps and Ecology, and the Port prepared  
12 detailed written responses to the comments. In July 1998, following in-depth review of the permit  
13 application, Ecology issued a §401 certification for the project subject to a 19-page list of conditions.

14 24. During this time period, the Port was acquiring properties on the west side of STIA  
15 necessary for construction of the new runway. After acquiring the properties and conducting on-the-  
16 ground wetland delineations, the Port discovered more wetlands than previously estimated from  
17 aerial photos and distant observations from nearby rights-of-way. Accordingly, in September 1999,  
18 the Army Corps of Engineers issued a revised public notice, which reinitiated Ecology review of the  
19 §401 certification request. The Army Corps of Engineers and Ecology conducted another public  
20 hearing. Again, extensive public comments were submitted, and the Port again prepared detailed  
21 written responses to those comments.

22 25. Ecology's reinitiated §401 review was even more extensive than its original review.  
23 Ecology contracted with King County to review the Port's proposed stormwater management plan in  
24 accordance with the requirements of the King County Surface Water Design Manual. King County  
25 conducted a multi-year review of the plan, involving thousands of hours of hydrologic modeling and  
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1 expert review, culminating in King County's recent approval of a revised stormwater management  
2 plan. Ecology also contracted with Pacific Groundwater Group to conduct a study of the potential  
3 impacts of the proposed runway embankment on aquifers, wetlands and streams in Miller, Walker,  
4 and Des Moines Creeks basins, culminating in the *Sea-Tac Runway Fill Hydrologic Studies Report*  
5 (2000). During this period, the Port was also required to prepare numerous expert reports regarding  
6 wetlands and aquatic resources, including but not limited to the following:

- 7 • *Biological Assessment, Master Plan Update Improvements, Seattle-Tacoma International*  
8 *Airport (Parametrix 1999)*
- 9 • *Seattle-Tacoma Airport Master Plan Update Low Streamflow Analysis (Earth Tech, Inc. 2000)*
- 10 • *Wetland Functional Assessment and Impact Analysis, Master Plan Update Improvements,*  
11 *Seattle-Tacoma International Airport (Parametrix 2000)*
- 12 • *Natural Resource Mitigation Plan, Master Plan Update Improvements, Seattle-Tacoma*  
13 *International Airport (Parametrix 2000)*
- 14 • *Subsurface Conditions Data Report 404 Permit Support Third Runway Embankment (Hart*  
15 *Crowser, July 1999)*
- 16 • *Stability Review of RECo 30% Design Third Runway Embankment Project (Draft Memorandum*  
17 *Hart Crowser, November 2000)*
- 18 • *Geotechnical Engineering Analyses and Recommendations Third Runway Embankment (Draft*  
19 *Memorandum Hart Crowser, December 2000)*
- 20 • *Revised Methods and Results of Liquefaction Analysis Third Runway Embankment (Draft*  
21 *Memorandum Hart Crowser, March 2001)*

22 26. In December 2000, the Army Corps of Engineers issued another revised public  
23 notice, inviting further public comment on the application and studies. In January 2001, the Army  
24 Corps of Engineers and Ecology conducted a third public hearing and accepted additional public

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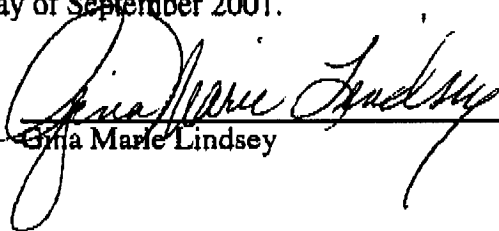
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**AR 012993**

1 comments. Over the life of this permit application, Ecology and the Port have each held numerous  
2 public meetings and studied hundreds of issues, resulting in the most extensively reviewed §401  
3 certification ever issued by Ecology.

4 I declare under penalty of perjury under the laws of the State of Washington that the  
5 foregoing is true and correct.

6 Executed at Seattle, Washington this 27<sup>th</sup> day of September 2001.

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8 Gina Marie Lindsey

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**AR 012994**

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**AR 012995**

## INTERLOCAL AGREEMENT, AIRPORT COMMUNITIES COALITION

In accordance with the Interlocal Cooperation Act (Revised Code of Washington, Chapter 39.34) the City of Normandy Park, the City of Des Moines, the City of Burien, the City of Federal Way, and the City of Tukwila (hereafter the "Parties"), each of which is a Washington Municipal Corporation hereby enter into the Agreement set forth.

### RECITALS

1. The parties hereto have expressed their opposition to the development of a third runway, and other system improvements leading to increased air traffic at Seattle-Tacoma International Airport and Boeing Field.
2. The parties further believe that regional public transportation needs must be resolved on a regional basis and that only equitable solutions to those needs must be adopted. Additional development of Seattle-Tacoma International Airport and/or increased air traffic at Boeing Field do not constitute equitable or responsible regional solutions.
3. The parties believe that a collective effort including the pooling of resources and the execution of this Agreement to express and administer policy matters is the most effective and expeditious method of achieving the goals stated herein.
4. The parties agree to promote the following goals:
  - A. To stop the construction of any additional runways at Seattle-Tacoma International Airport.
  - B. To limit or reduce the number of flight operations in King County, at both Seattle-Tacoma International Airport and at Boeing Field, to a specific level and to eliminate night flights from 10:30 p.m. to 7:00 a.m.
  - C. To limit airport facilities expansion in King County, at both Seattle-Tacoma International Airport and at Boeing Field, in order to prevent a significant increase in the number of flight operations which is likely to have substantial, adverse environmental impacts.
  - D. To revoke the "Four Post Plan".
  - E. To develop and promote equitable regional transportation needs solutions on a regional basis.
  - F. To improve abatement and mitigation of airport impacts in the Coalition cities.

G. Such other and further related goals as may be determined by the Executive Committee.

NOW THEREFORE THE PARTIES HEREBY AGREE AS FOLLOWS:

### I. DEFINITIONS AND USAGES

A. Each of the parties hereto shall be referred to as "Normandy Park", "Des Moines", "Burién", "Tukwila", "Federal Way", or such other public agency as may be admitted.

B. "Airport Communities Coalition" hereinafter referred to as "ACC" is the entity created by this Interlocal Agreement, which is comprised of one representative from each party hereto.

C. "Executive Committee" means the assembly of representatives from the parties hereto, the function of which is to administer the policy and purposes of this Agreement.

D. "Chair" means the presiding member of the Executive Committee, who shall be elected by the other representatives to the executive committee.

E. "Participate" or "participation" means the right of a party to vote on any matter submitted to the Executive Committee for a vote, upon payment of the minimum financial contribution specified hereunder.

F. "Encumbered expenses" means financial obligations, enforceable in law or equity, which have been incurred by the Executive Committee.

### II. UNDERSTANDING AND PURPOSES

A. The parties understand and agree to promote the goals set forth in Recital 4 above and such other goals and policies as are determined by the Executive Committee.

B. The parties agree and understand that they will rely on the Executive Committee's faithful and responsible representation of the parties' collective and individual interests in making their important land use and transportation planning decisions under this Agreement.

C. In furtherance of this Agreement the parties will:

1. Establish and maintain clear lines of communication through their representatives on the Executive Committee.

2. Coordinate participation in continued planning and environmental review processes concerning air transportation and environmental matters arising therefrom, both as to existing facilities or planned alternatives.
3. Prepare for and undertake litigation or other actions that may be required in order to further the parties' common objectives.
4. Conduct meetings of the Executive Committee in order to carry out necessary and proper functions of ACC as set forth herein.
5. Establish and fund a budget, with amendments thereto as necessary in order to carry on the activities of ACC. This operating fund shall be known as the "Operating Fund of ACC Executive Committee Joint Board."
6. The Executive Committee shall not acquire any real property. Personal property shall be acquired as necessary to carry out the purposes of this Agreement.

### **III. DURATION**

This Agreement shall remain in full force and effect so long as at least two parties continue the operation of this Agreement. Any party may withdraw from this Agreement and may be discharged from its obligations hereunder, provided that it has paid all outstanding financial contributions, including its proportionate share for any encumbered expenses, for which it is liable pursuant to Section VIIA and upon not less than sixty (60) days written notice to the Executive Committee; provided, further, that immediately upon notification of an intent to withdraw from this Agreement, the withdrawing party shall not be liable for any further financial obligations incurred by the ACC.

Any party so withdrawing shall be entitled to a ratable refund of any payment previously made to the Operating Fund after payment of the withdrawing party's share of any outstanding or encumbered debts incurred prior to the receipt by the Executive Committee of the sixty days written notice of withdrawal. Any parties remaining to the Agreement may unanimously determine to terminate this Agreement. Upon such termination, the remaining assets of ACC, if any, will be divided pro rata on the same percentages as are in effect on the date of termination as set forth under Section VII below.

### **IV. ELIGIBILITY**

Eligibility to participate in this Interlocal Agreement shall be limited to any "public agency" as defined by RCW 39.34.020. A public agency seeking to participate in this Agreement may be allowed to do so, upon approval of the Executive Committee, pursuant to the existing terms hereof and upon the payment of at least \$100,000 to the Operating Fund established in Section II.C.5 of this Agreement.

The Executive Committee by unanimous vote may allow admission by a public agency on terms other than those set forth herein for participation. Any public agency so admitted shall be deemed an ex officio party hereto and shall not be entitled to a vote on matters submitted to the Executive Committee.

#### **V. CREATION OF AIRPORT COMMUNITIES COALITION (ACC) - EXECUTIVE COMMITTEE**

There is hereby created the Airport Communities Coalition (ACC). This organization shall be a voluntary association of the parties hereto. The association shall be governed by the Executive Committee. The Executive Committee shall be comprised of one voting member from each party who shall be an elective official of such party.

The voting member of each party shall be duly selected annually by the legislative body of each party thereof. Each party shall similarly select an alternate voting member of the Executive Committee who shall serve in the absence of the voting member. Such alternate may be either an elected or appointed official of the party.

The Executive Committee shall by majority vote, except as herein otherwise provided, develop and implement policy in order to implement the goals set forth herein, adopt and administer a budget, receive funding from the parties for such budget, and seek such outside professional assistance as is necessary to achieve the purposes set forth herein. The funds of ACC shall be subject to audit in the manner provided by the law for the auditing of public funds.

Regular meetings of the Executive Committee shall be held as determined by the Executive Committee. The Executive Committee shall elect annually by majority vote a "chair" to conduct its meetings. The chair shall not forfeit, by virtue of the position of chair, any power vested in him/her and in addition will schedule and preside over meetings. The chair shall continue to preside at the pleasure of a majority of the voting members of the Executive Committee, and may be replaced at any time.

A quorum for the conduct of business by the Executive Committee shall be a majority. Notice of any special meeting shall be circulated to all members of the Executive Committee by the chair, or upon the written notice of a voting majority of the Executive Committee not less than twenty-four (24) hours before such meeting is scheduled. No action will be taken without a quorum and without an absolute majority of the eligible voting members of the Executive Committee voting in favor of the matter under consideration. Executive Committee members may attend meetings and vote telephonically as may be necessary for the orderly and timely conduct of business. Written notice of any special meeting may be waived as to any member who at the time of the meeting is actually present or who has filed with the chair a written waiver of notice. The parties further agree and understand that the purpose of ACC Executive Committee meetings is to discuss with representing legal counsel litigation or potential litigation to which the parties are, or are likely to become, a party when public



knowledge regarding the discussion is likely to result in an adverse legal or financial consequence to the parties.

## VI. PROFESSIONAL SERVICES

A. The Executive Committee may, from time to time, retain legal or other professional assistance or contribute to the retention by one of the parties of legal or other professional assistance to carry out the purposes of this Agreement. A contract or engagement letter shall be provided for each consultant so retained, which contract or engagement letter shall subsequently be marked as an Exhibit and incorporated into this Agreement, subject to all terms herein.

B. Information and materials developed by providers of professional services, who are retained and are compensated pursuant to the provisions of this Agreement, shall be made available to each party to this Agreement which has borne its share of the cost of providing such services in the manner provided herein. In order to preserve confidentiality, all meetings of the legislative or governing body of any party to this Agreement related to any of the subjects of this agreement shall be held in executive session pursuant to RCW 42.30.110(i) and all written materials transmitted by Cutler & Stanfield or successors or associates of Cutler & Stanfield or the Executive Committee to any party to this Agreement shall be considered exempt from public inspection and copying under RCW 42.17.310 unless publicly cited by the party in connection with any party action.

## VII. SHARING OF COSTS

A. In order to pay such fees, costs, and other expenses as are incurred by the Executive Committee on behalf of ACC including costs incurred in connection with the retention of legal or other professional assistance, it is the intention of the parties to this Agreement that each party will make available to ACC consistent with the provisions herein, funds as follows:

City of Normandy Park	\$600,000 for 1996 operating expenses;
City of Des Moines	\$600,000 for 1996 operating expenses;
City of Burien	\$600,000 for 1996 operating expenses;
City of Tukwila	\$100,000 for 1996 operating expenses;
City of Federal Way	\$100,000 for 1996 operating expenses.

B. Each party pledges its best efforts to approve appropriations providing for the sharing of costs specified in this Section VII, but no party shall be liable for any monetary assessment unless and until the governing body of such party has appropriated funds for such specific purpose.

C. In the event that one or more of the parties to this Agreement fail to contribute to the sharing of costs in the amount set forth above and in a manner consistent with provisions of this Agreement, the party in default will refrain from further

participation in the Executive Committee's business, and its rights pursuant to this Agreement shall be suspended.

D. In the event one or more parties fail to ratify this Agreement or having initially ratified this Agreement and thereafter defaults or withdraws from this Agreement, the cost sharing set forth above in Section "A" shall be adjusted on a pro rata basis to total 100% following the elimination of the party or parties and such adjusted percentages shall apply to any outstanding or future costs; provided, however, that the monetary obligation of the remaining Party or Parties shall not exceed that amount set forth above in Section "A"; and, provided further, that any remaining party may elect to terminate its participation as opposed to contributing any such additional funds.

### **VIII. COOPERATION**

Each of the parties participating in, or otherwise admitted to, this endeavor shall cooperate with the ACC Executive Committee. In that regard, each party hereto, whether involved by participation, admission, or otherwise, hereby covenants and agrees that, in the event of withdrawal, each such party shall not sue, harass, or in any form or manner interfere with the entity created by this Agreement or with any of the remaining parties, except as necessary to obtain the return of all contributed but unexpended funds set forth in section VIIA. This covenant shall specifically prohibit the sharing of any information obtained in any manner, directly or indirectly, as a result of the withdrawing party's involvement in ACC or otherwise pursuant to this Agreement unless otherwise required by public records law.

### **IX. INDEMNIFICATION**

A. In executing this Agreement, the ACC does not assume liability or responsibility for or in any way release the Parties from any liability or responsibility which arises in whole or in part from the existence, validity or effect of city ordinances, rules or regulations. If any such cause, claim, suit, action or administrative proceeding is commenced, the Parties shall defend the same at their sole expense and if judgment is entered or damages are awarded against the Parties, ACC, or both, the Parties shall satisfy the same, including all chargeable costs and attorneys' fees.

B. ACC shall indemnify and hold harmless the Parties and their officers, agents, volunteers and employees, or any of them, from and against any and all claims, actions, suits, liability, loss, costs, expenses, and damages of any nature whatsoever, which are caused by or result from a negligent act or omission of the ACC, its officers, agents, and employees in performing services pursuant to this Agreement. In the event that any suit based upon such a claim, action, loss, or damage is brought against the Parties or the Parties and ACC, ACC shall defend the same at its sole cost and expense; and if final judgment be rendered against the Parties and their officers, agents, and employees or jointly against the Parties and ACC and their respective officers, agents, and employees, ACC shall satisfy the same.

C. The Parties shall indemnify and hold harmless ACC and its officers, agents, and employees, or any of them, from and against any and all claims, actions, suits, liability, loss, costs, expenses, and damages of any nature whatsoever, which are caused by or result from a negligent act or omission of the Parties, their officers, agents, and employees. In the event that any suit based upon such a claim, action, loss, or damage is brought against ACC or the Parties and ACC, the Parties shall defend the same at their sole cost and expense; and if final judgment be rendered against ACC, and its officers, agents, and employees or jointly against ACC and the Parties and their respective officers, agents, and employees, the Parties shall satisfy the same.

#### **X. MISCELLANEOUS PROVISIONS**

A. This Agreement shall be effective upon ratification by at least two of the Cities except as otherwise provided in Section IV above. This Agreement may be amended only upon consent of all parties thereto. Any amendment hereto shall be in writing.

B. The waiver by any party of any breach of any term, covenant, or condition of this Agreement shall not be deemed a waiver of such term, covenant, or condition or any subsequent breach of the same of any other term, covenant, or condition of this Agreement.

C. Any party hereto shall have the right to enjoin any substantial breach or threatened breach of this Agreement by any other party, and shall have the right to recover damages and to specific performance of any portion of this Agreement.

D. This Agreement is solely for the benefit of the parties hereto and no third party shall be entitled to claim or enforce any rights hereunder except as specifically provided herein.

E. In all contractor services, programs or activities, and all contractor hiring and employment made possible by or resulting from this Agreement, ACC and the Parties shall abide by all federal, state, and local laws prohibiting discrimination.

F. The records and documents with respect to all matters covered by this Agreement shall be subject to audit by the Parties during the term of this contract and three (3) years after termination.

G. If any provision of this Agreement or application thereof to any party or circumstance, is held invalid by a court of competent jurisdiction, such invalidity shall not affect the other provisions of this Agreement which can be given effect without the invalid provision or application, and to this end the provisions of this Agreement are declared to be severable.

H. This Agreement shall be effective whether signed by all parties on the same document or whether signed in counterparts.

I. This Agreement supersedes the Interlocal Agreement entered into between the parties by signatures dated February 27, 1995, February 27, 1995, March 8, 1995, March 14, 1995 and March 24, 1995.

APPROVED AS TO FORM this \_\_\_\_\_  
day of \_\_\_\_\_, 1996.

DATED this \_\_\_\_\_ day of  
\_\_\_\_\_, 1996.

CITY OF NORMANDY PARK

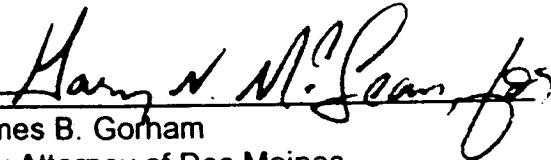
By \_\_\_\_\_  
Wilton S. Viall, III  
City Attorney of Normandy Park

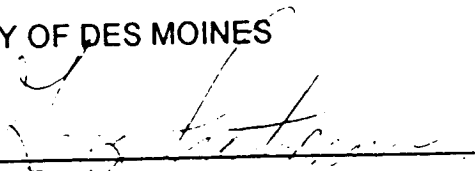
By \_\_\_\_\_  
Merlin Reynolds  
Its City Manager  
At the direction of the Normandy Park  
City Council by motion regularly passed  
at an open public meeting on  
\_\_\_\_\_.

APPROVED AS TO FORM this \_\_\_\_\_  
day of \_\_\_\_\_, 1996.

DATED this \_\_\_\_\_ day of  
\_\_\_\_\_, 1996.

CITY OF DES MOINES

By   
James B. Gorham  
City Attorney of Des Moines

By   
Greg Prothman  
Its City Manager  
At the direction of the Des Moines City  
Council by motion regularly passed at  
an open public meeting  
on JANUARY 25, 1996.

APPROVED AS TO FORM this \_\_\_\_\_  
day of \_\_\_\_\_, 1996.

DATED this \_\_\_\_\_ day of  
\_\_\_\_\_, 1996.

CITY OF BURIEN

By \_\_\_\_\_  
Michael Kenyon  
City Attorney of Burien

By \_\_\_\_\_  
Frederick Stouder  
Its City Manager  
At the direction of the Burien City  
Council by motion regularly passed at  
an open public meeting on  
\_\_\_\_\_, 19\_\_\_\_.

APPROVED AS TO FORM this \_\_\_\_\_  
day of \_\_\_\_\_, 1996.

DATED this \_\_\_\_\_ day of  
\_\_\_\_\_, 1996.

CITY OF TUKWILA

By \_\_\_\_\_  
Linda P. Cohen  
City Attorney of Tukwila

By \_\_\_\_\_  
John W. Rants  
Its Mayor  
At the direction of the Tukwila City  
Council by motion regularly passed at  
an open public meeting on  
\_\_\_\_\_, 19\_\_\_\_.

APPROVED AS TO FORM this \_\_\_\_\_  
day of \_\_\_\_\_, 1996.

DATED this \_\_\_\_\_ day of  
\_\_\_\_\_, 1996.

CITY OF FEDERAL WAY

By \_\_\_\_\_  
Londi K. Lindell  
City Attorney of Federal Way

By \_\_\_\_\_  
Kenneth E. Nyberg  
Its City Manager  
At the direction of the Federal Way City  
Council by motion regularly passed at  
an open public meeting on  
\_\_\_\_\_, 19\_\_\_\_.

**B**

**AR 013005**

**FILE**  
 IN CLERK'S OFFICE  
 COURT OF APPEALS  
 STATE OF WASHINGTON DIVISION I  
 DATE **NOV 15 1999**  
 \_\_\_\_\_  
*Joe C. Kennedy*  
 CHIEF JUDGE

IN THE COURT OF APPEALS OF THE STATE OF WASHINGTON

THE CITY OF DES MOINES, THE CITY )  
 OF BURIEEN, THE CITY OF FEDERAL )  
 WAY, THE CITY OF NORMANDY )  
 PARK, THE CITY OF TUKWILA, )  
 HIGHLINE SCHOOL DISTRICT NO. )  
 401, AND THE AIRPORT COMMUNI- )  
 TIES COALITION, )

Appellants, )

v. )

THE PUGET SOUND REGIONAL )  
 COUNCIL, THE EXECUTIVE BOARD )  
 OF THE PUGET SOUND REGIONAL )  
 COUNCIL, THE PORT OF SEATTLE, )  
 AND THE COMMISSIONERS OF THE )  
 PORT OF SEATTLE, )

Respondents. )

No. 42306-1-1

DIVISION ONE

PUBLISHED OPINION

FILED: NOV 15 1999

AGID, A.C.J. -- In July 1996, the Puget Sound Regional Council (PSRC) enacted Resolution A-96-02, which amended the central Puget Sound's Regional Transportation

AR 013006

Plan (RTP) to include planning for a third runway at Seattle-Tacoma International Airport. Several cities adjacent to the proposed expansion site,<sup>1</sup> along with Highline School District No. 401 and the Airport Communities Coalition, challenged the PSRC's decision to amend the RTP in the King County Superior Court. The trial court dismissed the Cities' claims and upheld the PSRC's decision, and the Cities appealed only one issue: the court's conclusion that the Growth Management Act does not require regional transportation plans to comply with local comprehensive plans. The Cities contend that by failing to take "any meaningful measures to ensure that the project is not in conflict with the existing comprehensive plans of the surrounding, impacted communities," the PSRC violated RCW 47.80.023(2) of the GMA,<sup>2</sup> which directs that regional transportation plans are to be "consistent with county-wide planning policies . . . , county, city, and town comprehensive plans, and state transportation plans."

The PSRC and the Port respond that there is no inconsistency between the amended regional plan and the local plans, and that the PSRC, a planning agency, has no duty to include specific mitigation measures in its planning documents. In addition, they contend that if there were a conflict between regional and local plans after the regional and local planners engaged in the coordinated planning process required by the GMA, the Legislature intended that the regional plan should prevail. We agree.

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<sup>1</sup> Des Moines, Burien, Federal Way, Normandy Park, and Tukwila.

<sup>2</sup> Although the bulk of the GMA is codified in RCW 36.70A, RCW 47.80 contains the transportation elements of the Act. The Legislature adopted both chapters as part of a single legislative bill.



## FACTS

The PSRC, the transportation planning entity for the Central Puget Sound area, was created in 1991 by the King, Kitsap, Snohomish, and Pierce county governments and the majority of the cities and towns within these counties.<sup>3</sup> These counties and cities participate as voting members of the PSRC, whose mission is to adopt and maintain regional transportation and growth management standards for the Central Puget Sound area. To meet its transportation-planning obligations, the PSRC prepares the RTP.<sup>4</sup> And to guide its regional growth management strategy, the PSRC has adopted a document called VISION 2020, which was prepared in 1990 by PSRC's predecessor, the Puget Sound Council of Governments.

In 1988, a regional airport planning task force, the Puget Sound Air Transportation Committee (PSATC), was created to develop alternatives and recommendations for meeting the region's long-term air carrier needs. It issued the 1988 Regional Air System Plan (RASP), which described the existing regional airport system and addressed strategies to meet future air carrier demand. This report was included in VISION 2020. In 1992, PSATC issued a Flight Plan Project Report, which recommended a multiple airport system and a third runway at Sea-Tac Airport. In conjunction with this report, the PSRC and the Port issued an environmental impact statement, called the Flight Plan EIS, which identified the range of proposed alternatives and their potential environmental impacts on the region.

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<sup>3</sup> See RCW 47.80.020.

<sup>4</sup> PSRC is required to adopt a transportation plan under federal law as well. See 23 U.S.C. § 134. The RTP satisfies both the state and federal obligations.

In 1993, following review of the Flight Plan Project Report and EIS, along with several meetings and hearings, PSRC's General Assembly adopted Resolution A-93-03, which amended the air transportation element of VISION 2020 to recommend that "the region should pursue vigorously, as the preferred alternative, a major supplemental airport and a third runway at Sea-Tac." Under this Resolution, the PSRC would not approve the construction of a new runway unless an environmental, financial and market feasibility study showed that a supplemental airport site could not eliminate the need for an additional runway. To satisfy its requirement that there be planning and feasibility studies, the PSRC established expert panels to determine whether supplemental sites were feasible, to review demand/system management programs, and to analyze noise reduction measures that were in place at Sea-Tac.

Shortly thereafter, the Executive Board concluded in Resolution EB-94-01 that "there are no feasible sites for a major supplemental airport within the four-county region and that continued examination of any local sites will prolong community anxiety while eroding the credibility of regional governance . . . ." This Resolution provided that the third runway would be authorized provided that "the project meets the independent evaluation of the noise and demand management conditions set out in Resolution A-93-03, and satisfies the environmental impact review process." After two years of review, an Expert Arbitration Panel issued a final order concluding that increased management would not eliminate the need for a third runway and that despite a good faith effort, Sea-Tac had not satisfied the noise condition in Resolution A-93-03.

In April 1996, the PSRC decided to amend the existing RTP to plan for a third runway at Sea-Tac and to require additional noise reduction measures at the existing

airport. During May and June of 1996, the PSRC conducted a SEPA review of this proposal that consisted primarily of the analysis in the previously-issued Flight Plan EIS along with an addendum that provided additional information and analysis.

On June 27, 1996, the Executive Board voted to recommend approval of the RTP amendment to the PSRC General Assembly, and on July 11, 1996, the General Assembly voted to adopt Resolution A-96-02 by an 84 percent majority. The plaintiff Cities voted against the amendment. They point out that the new runway would require construction of a new land mass level with the plateau on which the existing airport stands. This construction would require transporting more than 26 million cubic yards of dirt which would be excavated from mining pits located throughout the Central Puget Sound region and transported via double-trailer dump trucks through the cities surrounding the airport.<sup>5</sup>

The Cities challenged the PSRC's decision in King County Superior Court, alleging violations of the GMA and State Environmental Policy Act (SEPA), along with breach of contract, breach of agreement to arbitrate, and promissory estoppel. After reviewing the statutory language of RCW 47.80.023 and the GMA in its entirety, the trial court issued a final order with a separate memorandum ruling on the application of RCW 47.80.023(2), which concluded that "[t]here is simply no persuasive argument supporting plaintiffs' argument that cities have a statutory right to trump regional actions." The Cities appeal this legal conclusion.

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<sup>5</sup> The Cities predict that "[t]rucks carrying dirt would . . . become ubiquitous in the communities around the Airport, at a rate of 3,488 trips per day and nearly one million trips per year during the course of construction."

## DISCUSSION

The Cities obtained a constitutional writ of review under article 4, section 6 of the Washington State Constitution to challenge the PSRC's amendment to Resolution A-96-02.<sup>6</sup> On appeal from a trial court decision on writ of review, appellate courts engage in a de novo review of the agency's record, not the trial court's judgment,<sup>7</sup> to determine whether the action of a local legislative body was either illegal or arbitrary and capricious, depending on the issue presented.<sup>8</sup> Because this appeal presents only a "fundamental legal question" concerning the obligations imposed by RCW 47.80.023, we must determine whether the PSRC's actions violated that provision of the GMA.

The trial court correctly noted that "[r]eview by a constitutional writ is limited to the Court's review of the record before the agency to determine whether the decision or act complained of involved arbitrary and capricious or illegal actions violating the appellants' fundamental right to be free of such actions."<sup>9</sup> The Cities imply that the trial court focused exclusively on whether the PSRC's decision was arbitrary and capricious and urge this court to apply the "correct" clear error of law standard. This argument ignores the fact that the trial court devoted a seven-page memorandum to that issue. In

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<sup>6</sup> Washington recognizes three methods of judicial review of administrative decisions: (1) direct appeal as authorized by a statute or ordinance, (2) statutory writ of review under RCW 7.16.040 (also known as statutory certiorari), and (3) discretionary review pursuant to the court's inherent constitutional power (also known as constitutional or common law certiorari). Kreager v. Washington State Univ., 76 Wn. App. 661, 664, 886 P.2d 1136 (1994).

<sup>7</sup> Buechel v. State Dep't of Ecology, 125 Wn.2d 196, 203, 884 P.2d 910 (1994).

<sup>8</sup> Responsible Urban Growth Group v. City of Kent, 123 Wn.2d 376, 383, 868 P.2d 861 (1994).

<sup>9</sup> The standard is articulated in Bridle Trails Community Club v. City of Bellevue, 45 Wn. App. 248, 251-52, 724 P.2d 1110 (1986).

its Memorandum Ruling on the Application of RCW 47.80.023(2), the court noted that although it had previously determined that the PSRC's decision to amend the RTP was not arbitrary and capricious, it must also analyze the legal requirements of RCW 47.80.023(2) to determine whether the PSRC's action violated that provision. It concluded that it did not. We must undertake the same analysis of the PSRC's decision and the GMA's requirements to determine whether the trial court correctly concluded that the PSRC's amendment did not violate the GMA.

1. The Question of Inconsistency

Resolution A-96-02 amended the RTP to authorize “[p]lanning for a third runway for Sea-Tac Airport . . . provided the project satisfies the Federal Aviation Administration and Port of Seattle environmental impact review and permit processes and is authorized by the Port of Seattle and agencies with permitting authority.” The Cities claim that this amendment is inconsistent with their local plans because the plans call for mitigation of the runway's adverse effects, and the Resolution does not mention specific mitigation measures.

As an initial matter, the Port and the PSRC argue that the PSRC's failure to include specific mitigation measures in its RTP amendment does not mean that the plan is inconsistent with the Cities' comprehensive plans, which do not require the PSRC itself to impose these measures. The trial court reserved ruling on this question, choosing instead to address the legal requirements of RCW 47.80.023(2):

For the purposes of this ruling, the Court simply assumes that the mitigation requirements of local comprehensive plans, as they are interpreted by plaintiffs, do conflict with Resolution A-96-02. The Court in this ruling then addresses only the question of what impact if any RCW 47.80.[0]23(2) has on such a conflict.

The trial court recognized, however, that because none of the local policies require the PSRC to impose mitigation, the local policies are “not necessarily inconsistent with Resolution A-96-02, which itself calls for mitigation.” Indeed, the Cities have failed to point to even one provision that could be interpreted as imposing a specific mitigation responsibility on the PSRC.<sup>10</sup> Thus, our review of the policies leads us to believe that there is no actual conflict between the amended RTP and the local plans. But because this issue was not developed below, we will follow the trial court's lead and focus our analysis on the legal question of whether the GMA requires regional plans to be consistent with previously adopted city plans.

## 2. The PSRC's Role

In the opening section of their brief, the Cities “crystallize” the issue presented in this case: “[W]hich entities are required by the GMA to ensure that the unprecedented Sea-Tac Airport expansion is built in a way that minimizes conflicts with the land use plans of the surrounding communities?” The Port argues that the PSRC is not required to minimize construction impacts because its role is “to establish planning direction for regionally significant planning transportation projects, not to conduct detailed review and approvals of project-level actions.” The Interlocal Agreement which established the PSRC supports this assertion. It identified the PSRC's mission to prepare, adopt, and maintain goals, policies, and standards for regional transportation and regional growth

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<sup>10</sup> For example, a representative provision of the Des Moines policy seeks to “minimize the adverse impacts on constructing new transportation facilities.” Even those policies which mention other agencies include only the Port and the FAA. They do not contain any references to the PSRC or mitigation the Cities expect from that body.

management in the Central Puget Sound area. Accordingly, the trial court found that “PSRC is a planning agency . . . not a permitting agency,” and concluded that:

The PSRC only has authority to adopt planning policies in various forms. As a planning agency, it does not adopt or implement development regulations. PSRC does not issue permits for specific projects and therefore does not generally impose mitigation requirements for individual projects. Imposing mitigation is the responsibility of agencies with permitting authority.

The trial court correctly characterized the PSRC’s role in the GMA scheme. Because the Resolution is a planning document created by a planning agency, it need not specify at this juncture which project-specific mitigation measures are to be undertaken.

In their reply brief, the Cities contend that they “have never argued that the PSRC has the authority to ‘regulate’ or ‘permit’ specific project implementation.” Rather, the Cities assert that the “PSRC’s authority to determine which projects are appropriate to include in a regional transportation plan includes the power to exclude or place conditions on projects to assure their consistency with local comprehensive plans.” We agree that the PSRC has “the power” to place mitigating conditions on planning decisions. We hold, however, that it does not have a *duty* to impose such conditions at the planning stage.

The fact that the PSRC is not required in its planning documents to impose site-specific mitigation measures does not mean that mitigation will not be imposed. At oral argument, the PSRC provided this court with an overview of the federal, state, regional, county, and local regulations and conditions that will be placed on the construction. The Federal Aviation Administration, Environmental Protection Agency, Department of Natural Resources, Port of Seattle, City of Sea-Tac, and other cities surrounding the expansion will assume an active role in imposing mitigation requirements and permitting

conditions. The FAA, in particular, may approve a project only if it finds that “no possible and prudent alternative to the project exists and that every reasonable step has been taken to minimize the adverse effect.”<sup>11</sup> The Cities’ dire prediction that mitigation will never be undertaken because it has not been specifically imposed by the PSRC’s authorization for further planning is unfounded.

### 3. Regional Primacy in the GMA

In addition to the fact that the PSRC is a planning body with no duty to condition its authorizations for project planning, the GMA itself provides an alternative basis for our holding that the PSRC is not required to alter its planning documents to comply with ostensibly conflicting provisions in local plans. Although the Legislature did not explicitly direct that regional plans should prevail over local plans if the two conflict, when construed as a whole, the GMA evinces the Legislature’s intent to discard the traditional land use system in which each jurisdiction functioned as an isolated entity in favor of a scheme which stresses coordination, cooperation, and integration. In light of this legislative purpose, we agree with the PSRC that if the coordinated planning process does not result in consistency between regional and local plans, the regional plans must prevail.

The Cities base their argument that the PSRC must “take some meaningful action to achieve consistency with local plans”<sup>12</sup> on “the express wording of RCW 47.80.023,” which requires the PSRC to “[p]repare and periodically update a transportation strategy for the region” that is “consistent with . . . county, city, and town

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<sup>11</sup> 49 U.S.C.A. § 47106(c)(1)(C).

<sup>12</sup> (Emphasis omitted.)



comprehensive plans, and state transportation plans.” They claim that because this directive is so clear, “a detailed analysis of other GMA provisions is not warranted in order to ascertain the meaning of RCW 47.80.023(2).”<sup>13</sup> To support this argument, the Cities cite several cases which direct that “a statute which is clear on its face is not subject to judicial interpretation.”<sup>14</sup> Contrary to the Cities’ characterization, these cases do not stand for the proposition that one provision of a statute should be considered without regard to other provisions included under the same subheading. Thus, we must first construe RCW 47.80 as a whole to determine whether it is susceptible to only one interpretation.<sup>15</sup>

RCW 47.80.010 declares that the transportation system in Washington “should function as one interconnected and coordinated system” and “should be coordinated with local comprehensive plans.” To that end, the Legislature established in subsections (1) through (4) of RCW 47.80.023 regional transportation organizations and delineated their duties:<sup>16</sup>

(1) Prepare and periodically update a transportation strategy for the region. The strategy shall address alternative transportation modes and transportation demand management measures in regional corridors and shall recommend preferred transportation policies to implement adopted growth strategies. The strategy shall serve as a guide in preparation of the regional transportation plan.

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<sup>13</sup> (Emphasis omitted.)

<sup>14</sup> Marquis v. City of Spokane, 130 Wn.2d 97, 107, 922 P.2d 43 (1996).

<sup>15</sup> A statute is ambiguous if it is susceptible of two or more reasonable interpretations. State v. Van Woerden, 93 Wn. App. 110, 116, 967 P.2d 14 (1998), review denied, 137 Wn.2d 1039 (1999). Courts do not construe unambiguous statutes: “In judicial interpretation of statutes, the first rule is ‘the court should assume that the legislature means exactly what it says. Plain words do not require construction’.” State v. McCraw, 127 Wn.2d 281, 288, 898 P.2d 838 (1995) (quoting City of Snohomish v. Joslin, 9 Wn. App. 495, 498, 513 P.2d 293 (1973)).

<sup>16</sup> RCW 47.80.023.

(2) Prepare a regional transportation plan as set forth in RCW 47.80.030 that is consistent with county-wide planning policies if such have been adopted pursuant to chapter 36.70A RCW, with county, city, and town comprehensive plans, and state transportation plans.

(3) Certify by December 31, 1996, that the transportation elements of comprehensive plans adopted by counties, cities, and towns within the region reflect the guidelines and principles developed pursuant to RCW 47.80.026, are consistent with the adopted regional transportation plan, and, where appropriate, conform with the requirements of RCW 36.70A.070.

(4) Where appropriate, certify that county-wide planning policies adopted under RCW 36.70A.210 and the adopted regional transportation plan are consistent.

The Cities argue that RCW 47.80.023(2) is unambiguous and that it "states simply and directly that PSRC must ensure that its RTP is consistent with the comprehensive plans of surrounding cities." The PSRC and the Port counter that because the statute "requires two-way consistency," without indicating "which plan takes priority if an inconsistency exists," subsections (2) and (3) are susceptible to two different interpretations and require resort to rules of statutory construction. We agree that consideration of RCW 47.80.023(2) together with RCW 47.80.023(3) reveals that the Legislature has directed that regional plans are to be consistent with local plans *and* that the transportation elements of local plans are to be consistent with regional plans.

The Cities argue that these subsections are not inconsistent because subsection (3) refers only to the *transportation* elements of local plans. But because RCW 36.70A.070 requires all comprehensive plans to be internally consistent, the Cities cannot argue that their land use elements can negate regional transportation plans as long as their transportation elements are consistent. The Legislature likely referred specifically to "transportation elements" in RCW 47.80.023(3) because the statute's subject matter is transportation. The trial court correctly reasoned that subsection (3)

“counter-balances any inference of subsection (2) that the regional planning is uniquely required to defer to cities or to any other specific jurisdiction.”

Because RCW 47.80.023 requires consistency from both regional and local plans without specifying which prevails, and no other GMA section explicitly addresses this issue, we are faced with a gap in the statutory scheme. In these situations we attempt to discern the intent of the Legislature as evidenced by the statute’s structure and history of its enactment.<sup>17</sup> Here, we must consider both 36.70A and RCW 47.80 because they were adopted as part of a single legislative bill, then codified separately.

RCW 36.70A.010, the introductory provision of the GMA, expresses a concern that “uncoordinated and unplanned growth, together with a lack of common goals,” poses a threat to the viability and sustainability of this region. This threat stemmed from traditional zoning practices which focused narrowly on whether given uses and improvements of sites would be compatible with their immediate surroundings and largely ignored the more wide-ranging impacts of their decisions. With the GMA, Washington instituted a cooperative, coordinated approach to land management through a “bottom-up”<sup>18</sup> system of growth management, “with the central locus of decision-making at the local level . . . .”<sup>19</sup> This approach was intended to ensure that

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<sup>17</sup> Washington State Human Rights Comm'n ex rel. Spangenberg v. Cheney Sch. Dist., 30, 97 Wn.2d 118, 121, 641 P.2d 163 (1982). But if it is impossible to determine what the Legislature intended, it is up to the Legislature, and not the courts, to fill in the gap. “Courts may not read into statutes that which is not there.” St. Francis Extended Health Care v. DSHS, 115 Wn.2d 690, 704, 801 P.2d 212 (1990).

<sup>18</sup> Oregon, in contrast, has developed a “top-down” system, in which state authority assumes primacy over local planning. See Hong N. Huynh, Administrative Forces in Oregon’s Land Use Planning and Washington’s Growth Management, 12 J. Env’tl. L. & Litig. 115 (1997).

<sup>19</sup> Richard L. Settle and Charles G. Gavigan, The Growth Management Revolution in Washington: Past, Present, and Future, 16 U. Puget Sound L. Rev. 867, 898 (1993). See also

"citizens, communities, local governments, and the private sector cooperate and coordinate with one another in comprehensive land use planning."

In RCW 36.70A.210, the Legislature indicated that coordination should occur through planning at the county level when it directed that countywide planning policies should serve as the "framework from which county and city comprehensive plans are developed and adopted pursuant to this chapter." The King County Countywide Planning Policy (CPP), which was ratified by the Cities in 1994, provides that "all jurisdictions in the County . . . shall develop a balanced transportation system . . . and land use plan which implement regional mobility and reinforce the Countywide vision." The CPP further directs that "King County, its cities, [and] adjacent counties . . . shall support the continuous, comprehensive and cooperative transportation planning process conducted by the Puget Sound Regional Council pursuant to its Metropolitan Planning Organization designation." This provision makes clear that the PSRC is intended to be "[t]he primary forum for the development of regional transportation systems plans and strategies . . . ." Thus, the GMA vests authority in the PSRC, which is composed of and controlled by the counties and cities within the central Puget Sound region, to oversee important regional decisions and coordinate the planning process.

RCW 47.80, entitled "Regional Transportation Planning Organizations," provides further support for the conclusion that regional and countywide planning must control land use decisions in Washington. In this section, the Legislature applied the "bottom-up" approach to transportation and declared that it is "in the state's interest to establish

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Eric S. Laschever, *An Overview of Washington's Growth Management Act*, 7 Pac. Rim. L. & Pol'y J. 657, 662 (1998) ("The principal mechanism for implementing the Act's growth

a coordinated planning program for regional transportation systems and facilities throughout the state.” The first substantive subsection of RCW 47.80 authorizes regional transportation planning organizations to be formed “through the voluntary association of local governments within a county, or within geographically contiguous counties.” In addition, RCW 47.80.030 provides that “[a]ll transportation projects, programs, and transportation demand management measures within the region that have an impact upon regional facilities or services must be consistent with the plan and with the adopted regional growth and transportation strategies.” It is difficult to imagine how the Legislature could have made more clear its intent that both transportation and land use planning should be governed by a coordinated, regional planning process.

Our conclusion also garners support from an interpretation by the Department of Community, Trade and Economic Development (DCTED), the state agency charged with assisting local governments in implementing the GMA.<sup>20</sup> It has also concluded that cities may not stymie the regional planning process with local plans which are inconsistent with the regional scheme. Although the DCTED regulations do not specifically address this issue, in a letter from Steve Wells of DCTED to Todd Carlson of the Washington State Department of Transportation, Wells explained DCTED’s position on this issue:

Once the cooperative regional planning process has culminated in the adoption of the RTP or amendments thereto, when any inconsistencies between the RTP

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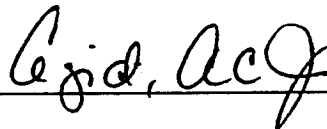
management goals is planning at the local level, by cities and counties.”).

<sup>20</sup> “[W]hen a statute is ambiguous—as in the instant case— there is the well known rule of statutory interpretation that the construction placed upon a statute by an administrative agency charged with its administration and enforcement, while not absolutely controlling upon the courts, should be given great weight in determining legislative intent.” Hama Hama Co. v. Shorelines Hearings Bd., 85 Wn.2d 441, 448, 536 P.2d 157 (1975).

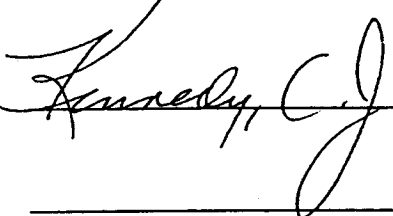
and county-wide planning policies or county, city or town comprehensive plans are identified, we have taken the position that the RTPO should notify the county, city or town whose county-wide planning policy or comprehensive plan is inconsistent with the RTP and work with that jurisdiction or those jurisdictions to appropriately amend its policy or plan to develop consistency with the RTP.

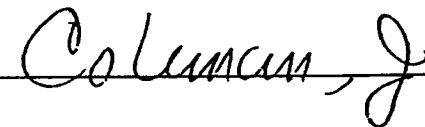
CTED recognizes that if local and regional planners are unable to achieve consistency, a regional plan that embodies the broad sweep of the planning efforts of local governments throughout the region should govern land use decisions. But although the Port and the PSRC are correct that the GMA does not advocate land use planning by "balkanized fiefdoms,"<sup>21</sup> neither does it allow regional planners to steamroll local comprehensive plans in favor of regional goals. The purposes of the GMA are met only if city, county, and regional planners cooperate and coordinate. When this process occurs, as it did here, the regional plan should reflect choices and goals endorsed by the majority of the city and towns within the region. To require unanimity among these jurisdictions or to invalidate a regional plan that does not reflect every aspect of every city plan within the region would defeat the clear purpose of the GMA.

Affirmed.

  
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WE CONCUR:

  
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\_\_\_\_\_

<sup>21</sup> Board Member Joseph Tovar aptly characterized the Cities' position as advocating a "city-centered universe," in which, "[i]f commonly held and acted upon by the four counties and seventy-eight cities in this region, . . . would perpetuate the type of 'uncoordinated and unplanned growth' that the GMA identified as a "threat to the environment [and] sustainable economic development' of this state." Port of Seattle v. City of Des Moines, Final Decision and Order, Central Puget Sound Growth Management Hearings Board, No. 97-3-0014 (1997) (quoting RCW 36.70A.010).

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**IN THE SUPERIOR COURT FOR THE STATE WASHINGTON IN AND FOR  
THE COUNTY OF KING**

CITY OF DES MOINES, et al.,  
  
Plaintiffs,  
  
v.  
  
PUGET SOUND REGIONAL COUNCIL, et al.,  
  
Defendants.

No. 96-2-20357-2 KNT  
No. 97-2-13908-2 KNT  
No. 97-2-22276-1 KNT  
No. 98-2-04911-1 KNT

**(CONSOLIDATED)**  
**FINDINGS OF FACT, CONCLUSIONS OF  
LAW AND FINAL ORDER**

CITY OF DES MOINES, et al.,  
  
Plaintiffs/Petitioners,  
  
v.  
  
PORT OF SEATTLE, et al.,  
  
Defendants/Respondents.

CITY OF DES MOINES, et al.,  
  
Plaintiffs,  
  
v.  
  
CENTRAL PUGET SOUND GROWTH  
MANAGEMENT HEARINGS Board, et al.,  
  
Defendants.

**AR 013023**

FINDINGS OF FACT AND CONCLUSIONS OF LAW - 1

Judge Robert H. Alsdorf  
King County Superior Court  
Regional Justice Center  
Kent, WA 98032  
(206) 205-2620



1 AIRPORT COMMUNITIES COALITION, et al.,

2 Plaintiffs,

3 v.

4 PORT OF SEATTLE, et al.,

5 Defendants.

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7  
8 This consolidated actions in this lawsuit challenge: (1) the legislative decisions of the  
9 Commissioners of the Port of Seattle adopting Port Resolution 3212 and Port Resolution 3245,  
10 which approved the Master Plan Update development actions at the Seattle-Tacoma International  
11 Airport, including construction of a new runway; (2) the Final Decision and Order ("FDO") of the  
12 Central Puget Sound Growth Management Hearings Board ("Board") in CPSGMHB Case No. 97-3-  
13 0014, which determining that the comprehensive plan of the City of Des Moines does not comply  
14 with the Growth Management Act ("GMA") and invalidating two plan provisions; and (3) the quasi-  
15 judicial Findings, Conclusions And Decision of the Port of Seattle Hearing Examiner upholding the  
16 adequacy of the Port's Master Plan Update environmental impact statement ("EIS") and  
17 supplemental environmental impact statement ("SEIS"). The court has read and considered the  
18 briefs of the parties and the administrative record as filed with the Court and as supplemented by  
19 order of the Court. On June 23, 1998, the court heard oral argument on all of the remaining claims  
20 in these four consolidated actions. On July 1, 1998, the Court received and reviewed supplemental  
21 briefing on HB 1487.

22 At oral argument, the petitioner Airport Communities Coalition and its constituent member  
23 cities ("Coalition") were represented by Cutler & Stanfield, L.L.P., and Perry Rosen, and by  
24 Cairncross & Hempelmann, P.S., and John Hempelmann. Respondents Port of Seattle, the Port of  
25 Seattle Commissioners, the Port of Seattle Responsible SEPA Official, and the Port of Seattle  
26

FINDINGS OF FACT AND CONCLUSIONS OF LAW - 2

Judge Robert H. Alsdorf  
King County Superior Court  
Regional Justice Center  
Kent, WA 98032  
(206) 205-2620

1 Hearing Examiner were represented by Foster Pepper & Shefelman PLLC and Tayloe Washburn and  
2 Roger Pearce. Respondent Central Puget Sound Growth Management Hearings Board was  
3 represented by the Washington Attorney General and Marjorie Smitch, and respondent Puget Sound  
4 Regional Council ("PSRC") was represented by Bricklin & Gendler, LLP, and Jennifer Dold.

5 Based on the its review of the administrative record and the briefs of the parties, and its  
6 rulings entered today concerning the application of WAC Ch. 365-195, the Court enters the  
7 following Findings of Fact, Conclusions of Law and Final Decision.

### 8 I. FINDINGS OF FACT

9 1. The Seattle-Tacoma International Airport ("STIA") is the primary commercial service  
10 airport for the Pacific Northwest region. STIA is the only airport that provides scheduled commercial  
11 air carrier service to the 2.8 million residents of the four-county Central Puget Sound area.

12 2. The Port of Seattle ("Port"), which operates STIA, is a special district unit of  
13 government under state law and is governed by an elected commission. The Port's governing  
14 commission is elected by the voters of King County.

#### 15 **The Background Regional Planning Studies Address the Region's Need for Improved 16 Commercial Air Transportation Facilities at STIA.**

17 3. In the mid-1980s, the Port completed the Airport Comprehensive Planning Review  
18 And Airspace Update Study, which concluded that the existing runway system at STIA would not be  
19 capable of efficiently serving the increasing demand for air traffic past the year 2000. The Federal  
20 Aviation Administration ("FAA") initiated an Airport Capacity Enhancement Study, which  
21 concluded that there was extensive delay at STIA, primarily in poor weather conditions, as a result of  
22 the close spacing of the two existing runways. In 1995, the FAA conducted a Capacity Enhancement  
23 Update Study, which confirmed the results of the earlier capacity study.

24 4. In 1989, the Port and the Puget Sound Regional Council of Governments initiated the  
25 Flight Plan Project to study alternatives and recommend solutions for meeting the region's long-term  
26 air transportation needs. As part of the Flight Plan Project, the Flight Plan programmatic EIS was

1 prepared and issued in October 1992. The Flight Plan EIS analyzed 34 alternative strategies for  
2 meeting the region's air transportation needs. At the conclusion of the Flight Plan studies and public  
3 process in 1992, the Flight Plan Report recommended implementation of a multiple airport system,  
4 including the addition of a new air carrier runway at STIA.

5 5. In April 1993, the PSRC General Assembly adopted Resolution A-93-03, amending  
6 the Regional Transportation Plan ("RTP") to authorize development of a third runway at STIA: (1)  
7 unless a supplemental airport site was proven to be feasible to eliminate the need for a new runway  
8 at STIA, (2) after demand management and system management programs are achieved or proven  
9 not to be feasible, and (3) when noise reduction performance objectives were scheduled, pursued,  
10 and achieved based on independent evaluation and measurement of noise impacts. PSRC established  
11 a detailed process to implement Resolution A-93-03, including studies of supplemental airport sites,  
12 demand/system management, and existing noise management measures at STIA.

13 6. After these studies, PSRC concluded that there are no feasible sites for a major  
14 supplemental airport within the four-county region.

15 7. An independent panel reviewed demand/system management programs and noise  
16 reduction performance at STIA. That panel concluded that demand/system management would not  
17 eliminate the need for a third runway. The panel determined that the noise reduction standards of  
18 Resolution A-93-03 had not been met, however, and suggested additional noise reduction measures.  
19 The panel noted that the Port has been a national leader in efforts to reduce noise impacts on  
20 residents surrounding STIA. The Port's SeaTac Communities Plan, the Part 150 Noise  
21 Compatibility Plans, and the innovative Noise Mediation Project have collectively resulted in a  
22 series of measures expected to significantly reduce aircraft noise by the year 2001.

23 8. On July 11, 1996, the PSRC General Assembly passed Resolution A-96-02, which  
24 amended Resolution A-93-03 and included a third runway at STIA, with additional noise reduction  
25 measures, in the region's RTP.  
26

1           9.     On January 23, 1998, this Court dismissed with prejudice the Petitioners' claims  
2 challenging PSRC Resolution A-96-02 and the SEPA review for that resolution.

3                   **The Port of Seattle's Master Plan Update for STIA and Preparation of the Master Plan**  
4                   **Update Environmental Impact Statement.**

5           10.    In 1993, the Port initiated an Airport Master Plan Update for STIA, which identified  
6 and studied alternative means of meeting the following needs at the Airport: (1) improve the poor  
7 weather airfield operating capacity to an acceptable level of delay, (2) provide sufficient runway  
8 length to accommodate warm weather operations without restricting passenger load factors or  
9 payloads, (3) provide Runway Safety Areas that meet current FAA standards, and (4) provide  
10 efficient and flexible landside facilities to accommodate future aviation demand.

11           11.    Also in 1993, pursuant to the National Environmental Policy Act ("NEPA") and the  
12 State Environmental Policy Act ("SEPA"), the FAA and the Port initiated preparation of a joint  
13 Master Plan Update EIS to analyze the alternatives to, environmental impacts of, and possible  
14 mitigating measures for the Master Plan Update improvements at STIA.

15           12.    In 1995, the FAA and Port issued the Master Plan Update Draft EIS, conducted two  
16 public hearings, accepted and responded to voluminous written and oral comments, conducted  
17 additional studies, and prepared project revisions in response to public comments. The Coalition  
18 cities submitted detailed comments on the Draft EIS. Throughout the preparation of the Master Plan  
19 Update Final EIS, the Port coordinated with numerous agencies with technical expertise to ensure  
20 that the most appropriate methodologies for measuring impacts was followed. In particular, the issue  
21 of aviation demand forecasting was coordinated on an ongoing basis with the FAA.

22           13.    On February 9, 1996, the Port issued the Master Plan Update Final EIS, which  
23 included all comments on the DEIS and the Port/FAA responses to each comment. Among other  
24 impact areas, the EIS identifies the quantity of fill needed for construction of the third runway and  
25 the various locations where the fill might be obtained. The EIS identifies numerous haul routes that  
26 could be used for transportation of fill. While there may be some flexibility in where the dirt is

1 obtained and how it is transported to the Airport, the EIS recognizes that securing dirt and  
2 transporting it to the Airport is a necessary support activity for the expansion of STIA.

3 **Port Adoption of Resolution 3212.**

4 14. On August 1, 1996, the Port Commission adopted Resolution No. 3212, which  
5 attached and adopted the Airport Master Plan Update for STIA and granted approval to develop the  
6 third runway at STIA. Included with Resolution 3212 was a commitment to mitigate the impacts of  
7 the improvements at STIA based on the impacts identified in the Master Plan Update EIS. This list  
8 of mitigation measures was in addition to the noise reduction measures called for by the PSRC in its  
9 Regional Transportation Plan, which the Port also committed to in Resolution 3212. The mitigating  
10 measures are found at Attachment D to Resolution 3212. The PSRC noise mitigation measures are  
11 included as Attachment E to Resolution 3212. The mitigation measures included in Resolution 3212  
12 addressed noise, land use, water quality, wetlands, plants and animals, earth, and construction  
13 impacts.

14 **The Port's Preparation of the Master Plan Update Supplemental EIS.**

15 15. After publication of the FEIS, the FAA Office of Aviation Policy and Plans in  
16 Washington, D.C., issued its fiscal year 1996 Terminal Area Forecast ("TAF") for the nation's  
17 airports, including STIA. The fiscal year 1996 FAA TAF predicted levels of aircraft operations and  
18 passenger enplanements at STIA that exceeded the numbers of operations and enplanements in the  
19 Master Plan Update Final EIS.

20 16. When the FAA's 1996 TAF was released, a review of the aviation forecasts at STIA  
21 was initiated to identify why the forecast was higher and how it would affect the Master Plan  
22 Update. P&D Aviation, the Port's Master Plan Update contractor, evaluated the FAA 1996 TAF and  
23 supported its general conclusions that activity could grow faster than identified by the Master Plan  
24 Update aviation forecasts. This evaluation led to the development of new Port aviation forecasts that  
25 showed aircraft operations and passengers estimated to be approximately 17 percent greater (for  
26

1 planning year 2010) than the primary Master Plan Update FEIS forecast. To fully evaluate the  
2 possible project-level impacts (and potential mitigation measures) based on the new Port forecasts,  
3 the FAA and the Port commissioned a Supplemental EIS ("SEIS").

4 17. The Draft SEIS (containing a draft Clean Air Act Conformity Analysis) was released  
5 in February 1997. In the SEIS, the horizon for the project-specific impact analysis was revised from  
6 the year 2020 to 2010 for a number of reasons, including the following: aviation demand had  
7 become impossible to forecast with substantial accuracy beyond 2010, airline ticket prices (the  
8 primary prediction of aviation demand) had become impossible to reasonably forecast beyond 2010,  
9 airline fleet mix and engine mix were not reasonably predictable beyond 2010, new aviation engine  
10 technology was not predictable beyond 2010, and background surface traffic was not reasonably  
11 predictable beyond 2010 because major transportation projects in the STIA vicinity had been  
12 recently and drastically revised.

13 18. Although the SEIS concluded that detailed impacts could not be meaningfully  
14 predicted and analyzed beyond 2010, in order to aid the decision makers using the SEIS, the SEIS  
15 contained at Appendix D projections of impacts (based on assumed steady growth rates) to the year  
16 2020, as well as a higher growth rate scenario. Appendix D also contained a projection of impacts  
17 based on a higher assumed growth rate.

18 19. The Coalition cities commented extensively during the comment period following  
19 issuance of the Draft SEIS. After reviewing and responding to the Coalition cities' comments and  
20 extensive agency and public comments, the Final SEIS (and final-Clean Air Act Conformity  
21 Analysis) was published on May 13, 1997. The Coalition cities appealed the adequacy of the  
22 EIS/SEIS under SEPA to the Port's Hearing Examiner, but have not challenged it under NEPA.

23 **The Master Plan EIS/SEIS Shows the Unique Situation at the Seattle-Tacoma**  
24 **International Airport.**

25 20. The Master Plan EIS/SEIS shows the special circumstances at STIA, which do not  
26 affect most U.S. airports. First, STIA is the only commercial airport in the region and is the primary

1 air transportation hub of Washington state and the northwestern United States. As measured by total  
2 passengers, STIA is the 21<sup>st</sup> busiest airport in the country. It is the 18<sup>th</sup> busiest cargo airport.  
3 Because of the central Puget Sound's relative isolation from other parts of the country, there are no  
4 other commercial airports within a reasonable driving distance from STIA. Second, the primary  
5 problem affecting air transportation at STIA is delay. Although delay is currently a problem during  
6 bad weather conditions, those conditions occur 44 percent of the time at STIA. It is not  
7 unreasonable to conclude that STIA currently operates at an unacceptable level of delay during bad  
8 weather conditions, and that, if the Port does nothing, such delay will dramatically increase in the  
9 upcoming decade.

10 21. Regional planning studies document a critical need to improve the central Puget  
11 Sound region's ability to meet the increasing demand for air transportation services. The regional  
12 planning body has decided that "there are no feasible sites for a major supplemental airport within  
13 the four-county region." Thus, after 10 years of planning, it is not unreasonable to conclude that  
14 improvements at STIA are the region's only feasible solution for its air transportation needs.

15 **Port Adoption of Resolution 3245.**

16 22. On May 27, 1997, the Port Commission reaffirmed the approvals and commitments  
17 made in Resolution 3212, including the adoption of the revised STIA Master Plan Update and the  
18 commitment to undertake the noise reduction measures called for in PSRC Resolution A-96-02.  
19 Resolution 3245 included both a summary of the Commissioners' decision-making process  
20 (Attach. A) and an updated and expanded list of mitigating measures (Attach. D to Resolution 3245).  
21 The Resolution noted that the Final EIS and SEIS included a more complete list of possible  
22 mitigating measures. The list of mitigation measures included in Resolution 3245 was subject to  
23 further refinement and revision as plans were finalized and permitting processes were completed.

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FINDINGS OF FACT AND CONCLUSIONS OF LAW - 8

Judge Robert H. Alsdorf  
King County Superior Court  
Regional Justice Center  
Kent, WA 98032  
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1           **The FAA's Record of Decision.**

2           23.     On July 3, 1997, the regional administrator for the FAA's Northwest Mountain  
3     Region issued a Record of Decision ("ROD") approving the Master Plan Update at STIA. In  
4     accordance with the requirements of the Airport and Airways Improvements Act, the ROD provides  
5     comprehensive mitigation for the impacts of the third runway project. The ROD includes at  
6     Appendix B a June 30, 1997 letter from Washington State Governor Gary Locke on behalf of the  
7     Washington State Department of Ecology to the Secretary of the U.S. Department of Transportation  
8     which provides "reasonable assurance that the proposed airport development project involving the  
9     SeaTac Airport third runway will be located, designed, constructed and operated so as to comply  
10    with applicable air and water quality standards." The ROD concluded that "all practical means to  
11    avoid or minimize environmental harm have been adopted through appropriate mitigation planning."

12           24.     The ROD also contains an analysis of the impacts of the project and a list of  
13    mitigation measures required by the FAA. There are comprehensive federal mitigation requirements  
14    under the Airport and Airway Improvement Act ("AAIA") and the Clean Air Act. The ROD  
15    mitigation measures include noise, land use, archeological, cultural and historic resources, social and  
16    induced socio-economic impacts, air quality, water quality, construction, erosion and sedimentation  
17    control, wetlands, flood plains, surface transportation, plants and animals, services/utilities, earth,  
18    hazardous substances, and construction impacts.

19           **Port/SeaTac Interlocal Agreement.**

20           25.     Before the adoption of the Port resolutions, the City of SeaTac ("SeaTac") and the  
21    Port were pursuing discussions concerning the regulatory authority of the two jurisdictions on airport  
22    and airport-related projects. These negotiations culminated in an Interlocal Agreement dated  
23    September 4, 1997 ("ILA"), which resolved the outstanding jurisdictional issues. Because SeaTac is  
24    the host jurisdiction for the STIA expansion, the ILA contains proposed land use policies to ensure  
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1 the consistency of the SeaTac Comprehensive Plan with the STIA expansion. The ILA also included  
2 additional mitigation measures committed to by the Port to address the impacts of STIA expansion.

3 **The Port's Commitment to Comprehensive Mitigation of the Impacts of the Master  
4 Plan Update Development Actions.**

5 26. The Port of Seattle, in Resolution 3245, committed to comprehensive mitigation for  
6 the impacts of the Master Plan Update development actions, as disclosed in the EIS and SEIS.  
7 Those mitigation measures are set forth in Appendix D to Resolution 3245. Most of the Port's  
8 mitigation measures are also required by the FAA, pursuant to the Airport and Airways  
9 Improvement Act, and outlined at Appendix F to the FAA's ROD.

10 27. With respect to noise impacts, mitigating measures include:

- 11 • acoustical insulation of noise sensitive facilities such as schools, multi-family residences, and  
12 institutional uses;
- 13 • acoustical insulation of nine significantly impacted buildings;
- 14 • acoustical insulation of all eligible single family residences on the Port's waiting list prior to  
15 operation of the new runway;
- 16 • acoustical insulation of all single family residences that become eligible, based on the Master  
17 Plan Update development actions, prior to the operation of the new runway;
- 18 • directional soundproofing for homes already insulated;
- 19 • acquisition of residences in the Approach Transition Area;
- 20 • continuation of the existing noise abatement and noise remedy program at STIA;
- 21 • updates of the FAA Part 150 noise studies;
- 22 • continued work with local communities in locating compatible land uses near the airport;  
23 upgrading the noise monitoring equipment at STIA;
- 24 • work with the FAA to reduce reverse thruster use, to voluntarily reduce night flights, and to  
25 minimize the number of variances to the noise limitations program;
- 26 • work with foreign airlines to ensure the use of Stage 3 aircraft;

**AR 013032**

- 1 • work with operators to reduce the number of Stage 2 aircraft and to minimize night engine
- 2 testing;
- 3 • design and implement a noise compatible land use plan for properties in the acquisition zone;
- 4 • complete the public buildings insulation pilot studies; and
- 5 • seek FAA commitment to preventing violations of north flow nighttime departure procedures.

6 28. With respect to mitigation of air quality impacts, the air quality agencies have  
7 determined that the Master Plan Update development actions will be in conformance with the State  
8 Implementation Plan (SIP) and will meet National Ambient Air Quality Standards (NAAQS). Thus,  
9 no mitigation is required. Nevertheless, to ensure conformity, the Port, pursuant to a Memorandum  
10 of Agreement with the air quality agencies, has committed to fund air measurement studies by DOE  
11 in the vicinity of STIA. The Port has also committed to detailed Best Management Practices during  
12 construction to ensure that significant air pollution levels do not occur during construction. In  
13 addition, the number of annual heavy-duty diesel trips during construction has been limited by the  
14 FAA in its ROD.

15 29. With respect to mitigation of impacts to wetlands, the Port has committed to avoiding  
16 and minimizing fill of wetlands whenever possible. For required wetland fill and creek relocation,  
17 the Port has committed to no net loss of wetlands and wetland functions. The EIS and SEIS propose  
18 replacement of the wetland functions and values in the vicinity of STIA, to the extent such  
19 replacement is compatible with safe aircraft operations. The Port has proposed to replace all wildlife  
20 attractant values by constructing compensatory wetlands in Auburn. Compensatory mitigation for  
21 creek relocation is also proposed.

22 30. With respect to mitigation of water quality impacts, the Port has proposed a  
23 stormwater management plan for the new runway that includes the following:

- 24 • detention criteria based on DOE standards;
- 25
- 26

- 1 • stormwater outlets designed to reduce channel scouring, sedimentation and erosion, and to
- 2 improve water quality;
- 3 • stormwater outlets with flow dispersion compatible with stream mitigation;
- 4 • an ongoing maintenance plan for existing and proposed new stormwater facilities.

5 Water quality mitigation also includes compliance with the mitigating conditions in the Port's  
6 National Pollution Discharge Elimination System (NPDES) permit, which is re-examined and  
7 revised from time to time by the Department of Ecology. In addition, a construction erosion and  
8 sedimentation control plan will be prepared for the construction of the Master Plan Update  
9 improvements, which will incorporate Best Management Practices, including:

- 10 • erosion control measures such as mulching, silt fencing, sediment basins and check dams;
- 11 • spill containment areas to capture and contain any spills at construction sites and prevent their
- 12 entry into surface or ground water;
- 13 • installation of temporary fuel storage and maintenance areas to reduce the potential for spills and
- 14 contamination;
- 15 • phasing of construction activities to minimize the amount of area that is disturbed at any one
- 16 time;
- 17 • use of temporary and permanent terraces for fill slopes and cut slopes to reduce erosion and to
- 18 reduce transport of eroded materials; and
- 19 • installation of gravel and wheel wash facilities on construction equipment access roads to
- 20 minimize transport of sediment onto nearby roadways.

21 31. With respect to mitigation of construction impacts, the Port has committed to prepare  
22 a construction and earthwork management plan to govern acquisition and placement of fill material  
23 for the Master Plan Update development actions. The plan will address the methods for acquiring  
24 and transporting fill material, including designation of haul routes, hours of operation, traffic control  
25 and route mitigation. The final content of the plan will depend on the methods of transport  
26

1 ultimately selected. The Port has also committed to a construction acquisition plan in order to  
2 mitigate the disruption that could occur in the general vicinity of the proposed new runway  
3 construction. The Port has also committed to the extensive Construction Best Management Practices  
4 identified in the Final SEIS at Table 5-4-8 (SEIS at pp. 5-4-37 through 5-4-41).

5 32. With respect to mitigation of land use impacts, the Port has committed to the  
6 mitigating conditions for noise discussed above. In addition, the Port has committed to work with  
7 surrounding communities to develop compatible land use plans with the airport uses, to prepare a  
8 compatible land use plan for the acquisition areas acquired by the Port for noise mitigation, and to  
9 evaluate the acquisition of properties in the approach transition areas.

10 33. With respect to mitigation of transportation impacts, many of the transportation  
11 improvements and parking improvements are included in the Master Plan Update proposal itself. In  
12 addition, the Port has agreed to support and share in the costs of developing the 28<sup>th</sup>/24<sup>th</sup> Avenue  
13 South arterial and airport link roadway, to support the planned development of SR-509 by the State  
14 of Washington, to develop the south airport access solution if SR-509 does not proceed for any  
15 reason, to plan jointly with the City of SeaTac on transportation issues, and to construct roadway  
16 improvements at the intersections of 24<sup>th</sup> Ave. S./S. 154<sup>th</sup> St. and at SR-99/S.160<sup>th</sup> St.

17 **Growth Management Hearings Board Decision on City of Des Moines' Plan.**

18 34. In February 1997, the Port filed a petition with the Central Puget Sound Growth  
19 Management Hearings Board ("Board") challenging numerous policies in the Comprehensive Plan  
20 of the City of Des Moines ("Des Moines Plan") as violative of the GMA. CPSGMHB Case No. 97-  
21 3-0014.

22 35. On August 13, 1997, the Board entered a Final Decision and Order ("Board FDO"),  
23 unanimously ruling that the Des Moines Plan did not comply with the GMA and invalidating two  
24 plan policies. The Board ruled that STIA was an essential public facility ("EPF"), protected by  
25 RCW 36.70A.200. The Board also held that the expansion of an existing EPF, including necessary  
26

1 support activities associated with that expansion, was protected by RCW 36.70A.200. The Board  
2 determined that the Des Moines Plan unlawfully precluded, by making impossible or impracticable,  
3 expansion of STIA.

4 36. The Board ruled that the Des Moines Plan violated the GMA because the Plan  
5 expressed the City's clear intent to exercise its municipal authority to prevent expansion of STIA,  
6 not to mitigate its impacts. The policies at issue in the Des Moines Plan did not require mitigation,  
7 but instead directed the City to oppose any new facilities at STIA that increased the impacts to the  
8 City of Des Moines. The Board did not rule that the Port could avoid reasonable mitigation of  
9 adverse impacts associated with the expansion of STIA.

10 37. Two members of the Board decided that it was unnecessary to reach the issue of  
11 whether the Des Moines Plan also violated the interjurisdictional plan consistency and countywide  
12 planning policy consistency requirements of RCW 36.70A.100 and .210. One Board member  
13 decided that the Plan violated these provisions as well and wrote a concurring opinion to that effect.

14 38. In addition to finding the Des Moines Plan not in compliance with GMA, the Board  
15 invalidated two Des Moines Plan policies because those policies substantially interfered with  
16 GMA's transportation goal which requires local governments planning under GMA to "[e]ncourage  
17 multimodal transportation systems that are based on regional priorities and coordinated with county  
18 and city comprehensive plans." Those invalidated policies are strategy 1-04-05 and strategy  
19 5-04-04:

- 20 • Strategy 1-04-05: Intergovernmental Cooperation/Annexation: (1) When decisions  
21 are made by state, county, regional agencies, tribes, or special purpose districts, and those  
22 decisions are clearly in the best interests of the state, county or region, take appropriate  
23 measures to implement those decisions within Des Moines and the Planning Area, unless the  
24 decisions unfairly or negatively affect the residences or businesses in the Des Moines area.  
(Emphasis added.)
- 25 • Strategy 5-04-04: Adopt development regulations as needed that provide a process for  
26 the identification and possible siting of essential public facilities. Cooperatively work with  
surrounding municipalities and King County during the siting and development of facilities

FINDINGS OF FACT AND CONCLUSIONS OF LAW - 14

Judge Robert H. Alsdorf  
King County Superior Court  
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1 of regional significance. Oppose new facilities associated with Sea-Tac International Airport  
2 that increase adverse impacts to the City of Des Moines. (Emphasis added.)

3 39. The record before the Board shows that in order to construct the STIA improvements  
4 planned for in the Port's Master Plan Update, it is necessary for trucks hauling fill dirt to travel  
5 through the streets of one or more of the cities of SeaTac, Des Moines, Burien, Tukwila and  
6 Normandy Park.

7 40. The record before the Board shows that the City of Des Moines developed and  
8 adopted certain comprehensive plan policies and development regulations which would permit it to  
9 stop trucks moving fill, and thereby to directly or indirectly prevent STIA expansion.

10 41. Since 1993, the Coalition cities have entered into a series of interlocal agreements  
11 with the primary stated purpose being to "stop the construction of any additional runways" at STIA.

12 42. Under the GMA, airports such as STIA are expressly included in the definition of  
13 essential public facilities.

14 **The Decision of the Port of Seattle Hearing Examiner Finding the EIS and SEIS to be  
15 Legally Adequate.**

16 43. The Master Plan Update Final EIS was issued in February 1996. In Port Resolution  
17 3212, the Port determined that EIS was legally adequate for its decision to approve the Master Plan  
18 Update development actions. Because of the changed forecasts of aviation activity at STIA, the Port  
19 and FAA prepared the Master Plan Update SEIS. The Master Plan Update Final SEIS was issued on  
20 May 13, 1997. In Port Resolution 3245, the Port determined that the SEIS was legally adequate for  
21 its decision to approve the Master Plan Update development actions as amended. Both EISs were  
22 administratively appealed by the Coalition cities to the independent Hearing Examiner of the Port of  
23 Seattle.

24 44. The Hearing Examiner reviewed the extensive record on the EISs, reviewed written  
25 testimony submitted by all parties, and heard five days of testimony and legal argument on  
26 December 1 through 5, 1997. On January 30, 1998, the Examiner issued a detailed Findings,

1 Conclusions And Decision (“Examiner’s Decision”), which held that the EIS and SEIS are legally  
2 adequate.

3 **Findings Relating to the EIS Forecast Methodology and Analysis.**

4 45. The Coalition argues that the EIS is inadequate because the forecasts on which it is  
5 based show the same number of enplanements (passengers) under both the With Project and No  
6 Action alternatives.

7 46. When the Port and the FAA began preparation of the Master Plan Update EIS, they  
8 retained P&D Aviation to prepare the forecast that served as the basis for the Master Plan Update  
9 EIS (the “1994 forecast”). Later, in 1996, when a decision was made to update the forecast, the Port  
10 again retained P&D Aviation to prepare the updated forecast (the “1996 forecast”). P&D Aviation  
11 had experience in preparing aviation forecasts for the Puget Sound region, having prepared the  
12 forecast that served as the basis for the Flight Plan EIS issued by the Port and the PSRC in 1992.

13 47. The forecasting expert at P&D Aviation primarily responsible for the preparation of  
14 the STIA forecasts was Stephen L. Allison, Senior Aviation Planner. Mr. Allison has 30 years  
15 experience in the aviation planning and consulting field, having served as project manager or lead  
16 aviation planner on the development of over 30 airport master plans and regional aviation system  
17 plans. While he functions as project manager or lead aviation planner on a variety of airport  
18 planning assignments, his specialty is the preparation of forecasts of aviation activity for individual  
19 airports and multiple-airport regions.

20 48. The approach used in preparing the STIA forecasts is widely accepted and used  
21 throughout the aviation industry. Mr. Allison generally described the process utilized as consisting  
22 of the following steps:

- 23 • Analyze historic airport activity data and trends (such as passengers, air cargo, and aircraft  
24 operations).

- 1 • Assess the conditions and factors which influence the demand for aviation activity, including  
2 the local and national economies, air fares, changes in airline service, competing airports,  
3 technological advances in telecommunications, and international economic growth and  
4 bilateral agreements.
- 5 • Obtain input from the aviation community, particularly the airlines serving STIA, to obtain  
6 their opinions regarding the future of aviation demand in general and at STIA.
- 7 • Develop a mathematical relationship between a component of airport activity (e.g., domestic  
8 passengers) and the factors (explanatory variables) which are historically shown to strongly  
9 affect it. Evaluate this mathematical relationship, or "model," to ensure that it is logical for  
10 forecasting aviation demand and passes key statistical tests.
- 11 • Obtain projections of the factors in the model affecting airport activity, then use the model  
12 with the projected factors to derive a forecast of the airport activity.
- 13 • Evaluate the probable effects on the forecast of factors not explicitly accounted for in the  
14 model, such as telecommunications, demand management techniques, and high speed rail.
- 15 • Develop alternative forecast approaches as a check against the results of the model.
- 16 • Prepare upper-range and lower-range forecasts based on the alternative approaches to  
17 illustrate the potential range of outcomes.
- 18 • Compare the master plan forecast with forecasts prepared in other studies (such as flight  
19 plan) and by the FAA and evaluate differences in the purpose for the forecast, the forecast  
20 approach, and assumptions.

21  
22 49. The evidence showed that three factors stand out as having the greatest correlation  
23 with aviation demand at STIA and the greatest predictive value for estimating future aviation  
24 demand at STIA. These three factors are (a) the population of the airport's service area, (b) personal  
25  
26



1 income in the service area, and (c) average air fares. Higher population and personal income have a  
2 positive effect on demand for air travel, and higher air fares influence demand negatively.

3 50. The models used by P&D Aviation for the 1994 and 1996 forecasts were tested  
4 against actual aviation activity at STIA from 1973 through 1993. The 1994 model showed a 99.6%  
5 correlation with domestic passenger variation, and the 1996 model showed 99% correlation. These  
6 statistics indicate that the factors used in the P&D forecasting models are excellent in explaining past  
7 variations in numbers of passengers at STIA.

8 51. The forecasts prepared by P&D Aviation were reviewed by the FAA's Northwest  
9 Mountain Region. The FAA reviewed the forecasts in terms of the methodology, forecast variables  
10 used, statistical measures, and reasonableness of the overall results. The FAA accepted the P&D  
11 forecasts and approved their use for the preparation of the EISs.

12 52. The forecasts were also reviewed by Landrum & Brown, Inc., the prime consultant  
13 selected by the Port and the FAA to prepare the Master Plan Update EIS and SEIS. The individual at  
14 Landrum & Brown primarily responsible for the review of the forecasts was Douglas F. Goldberg,  
15 Vice President and Leader of the firm's Facilities and Operations Practice. Mr. Goldberg has 14  
16 years of experience in aviation and airport planning, has been involved in the planning of over 30  
17 airports in the U.S. and abroad, and has participated in demand forecasts at a variety of major U. S.  
18 airports.

19 53. Mr. Goldberg reviewed the forecasts prepared by P&D Aviation and found them  
20 consistent with the industry standard accepted methodology and properly prepared. He testified that  
21 the methodology used by P&D Aviation has been used to provide the basis for implementing  
22 improvements at most of the major airports throughout the U.S. Landrum & Brown has applied this  
23 technique to develop aviation forecasts for many airport clients around the world, including the City  
24 of Chicago Department of Aviation and its two primary airports O'Hare and Midway.  
25  
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1           54.     The ACC presented the testimony of economist Dr. Clifford Winston, in support of  
2 its challenge to the aviation forecasts. Dr. Winston stated that expanded airport facilities, including a  
3 third runway, would themselves cause a growth in demand for air travel. It was his position that, by  
4 not taking this factor into account, the STIA forecasts understated the actual demand that will occur  
5 once the improvements are constructed.

6           55.     In response to Dr. Winston, the Port presented the testimony of expert Mr. Allison,  
7 Mr. Goldberg and Ms. Mary Vigilante, all of whom disagreed with Dr. Winston's positions. The  
8 Examiner found the testimony of the Port's witnesses to be credible that aviation demand at STIA is  
9 not caused by expanded airport facilities and not constrained by the delay characteristics as STIA, so  
10 long as there is sufficient airport capacity to serve the passengers who wish to fly. Thus, aviation  
11 demand at STIA can be adequately predicted by using population and income characteristics of the  
12 market area, along with air fares. This is particularly true for STIA, because there are no other  
13 airports in the region that can meet the demand and because the delays occur during poor weather  
14 conditions which are not predictable.

15           56.     Mr. Allison and Mr. Goldberg disagreed with Dr. Winston's position. The Hearing  
16 Examiner found the testimony of Mr. Allison and Mr. Goldberg credible that delay at STIA occurs in  
17 poor weather conditions and poor weather primarily affects arrivals rather than departures. Because  
18 poor weather, particularly on arrivals, is not predictable, the delay is not likely to have a significant  
19 impact on travelers' decisions. Moreover, airlines can incorporate delay into their flight schedules  
20 and incorporate sophisticated flight consolidation procedures. There are no other airports in the  
21 Puget Sound Region that provide an alternative to STIA. Moreover, even with the average delays  
22 projected for STIA during the planning horizon, alternative modes of travel (such as automobile  
23 travel) will still be considerably longer than air travel. For all these reasons, it is unlikely that  
24 reductions in delay at STIA caused by the Master Plan Update will result in substantial additional  
25 demand for air travel.  
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1           57.     In response to the ACC's argument that increasing delay at STIA without the project  
2 will reduce demand, the Examiner found the testimony of Mr. Goldberg and Mr. Allison to be  
3 credible that there will be sufficient capacity at STIA to accommodate passenger demand through the  
4 Master Plan Update's planning horizon (beyond the year 2010). That is, through modest  
5 adjustments in the number of passengers per airplane and the size of aircraft, as well as the hours of  
6 operation, STIA has the capacity to accommodate all the projected passenger demand through the  
7 planning horizon. This available capacity at STIA would likely accommodate the demand even as  
8 average delays increased, because that has been the experience at other congested airports. Other  
9 airports in the U.S. currently operate with levels of delay at or greater than the delay levels projected  
10 for STIA beyond 2010. At some of these airports, such as O'Hare, the level of activity is such that  
11 the FAA has imposed limits on the number of operations during most of the day. Despite the high  
12 levels of delay and the limits on operations, the activity levels at these airports have continued to  
13 increase in response to the demand. Therefore, it is not likely that increasing delays at STIA will  
14 significantly constrain demand between now and 2010.

15           58.     Dr. Winston hypothesized that an increase of runway capacity and an expansion of  
16 terminal and ground transportation facilities would enable the airport to expand the number of  
17 aircraft operations. However, as testified to by Mr. Goldberg and as found by the Examiner, the  
18 addition of the proposed third runway will not add significant new capacity at STIA during good  
19 weather conditions, which occur approximately 56% of the time. The purpose of the new runway is  
20 to improve efficiency in poor weather conditions, i.e., to provide two streams of aircraft traffic  
21 during poor weather conditions, the same as occurs now in good weather conditions. Because poor  
22 weather is not predictable, the addition of capacity in poor weather conditions should not have a  
23 significant effect on the demand for air travel.

24           59.     Based on Dr. Winston's testimony, the ACC also argued that expansion of the airport  
25 facilities will lead to greater airline competition and reduced operating costs, thereby reducing air  
26

1 fares and inducing more air travel. Again the Examiner found the testimony of the Port's witnesses  
2 more credible that the improvements at STIA will not result in greater airline competition because  
3 airlines add flights in response to increasing demand not in response to increased airport capacity.  
4 STIA already enjoys a high level of airline competition and comparatively lower air fares than the  
5 rest of the country. In addition, reduced airline delay costs will not likely result in lower air fares.  
6 Savings from delay costs will be partially offset by the airlines' share of the capital improvement  
7 expenses. Also, the savings from reduced delay costs, when spread among all airline passengers,  
8 represents a small percentage of air fares and will not likely have a major impact on travel demand.

9  
10 60. Dr. Winston also argued that more efficient and reliable air service would be a  
11 stimulant to regional economic growth which, in turn, would generate increased demand for air  
12 travel. As the testimony of the Port's witnesses showed, however, for economic growth in a region  
13 to be affected by airport improvements, there would have to be a major change from extremely  
14 inadequate service to adequate or better service. STIA already provides adequate or better air  
15 service, so the STIA improvements will not result in significant new economic growth in the region.  
16 In addition, as Mr. Goldberg testified, the EIS aviation forecasts did not assume any constraints in  
17 airport capacity, so it would be illogical to include in the forecasts a factor for increased aviation  
18 activity resulting from the airport improvements. Also, Mr. Goldberg testified that Denver, which  
19 recently constructed a new five-runway modern airport, actually has experienced a decline in the  
20 number of passengers and operations following completion of the new airport.

21 61. Finally, Dr. Winston testified that he developed a model to test whether the addition  
22 of a runway fuels growth in aviation demand. Applying his model to the top 150 airports in the  
23 country, he concluded that there is a statistical correlation between the number of runways and the  
24 amount of aviation activity at an airport. This, he argued, is evidence that an additional runway at  
25 STIA would cause additional growth. Again, the Examiner found the testimony of Mr. Allison and  
26 Mr. Goldberg more credible on this point. As they testified, Dr. Winston's analysis did not test for a

1 cause and effect relationship and can only show that a correlation exists between airports with high  
2 demand and airports with multiple runways. That is, the Winston analysis demonstrated that airports  
3 with greater aviation activity generally have more runways than airports with less activity. This does  
4 not demonstrate that the additional runways were the cause of greater activity levels, and it could  
5 demonstrate nothing more than that busy airports build runways. In addition, the statistical  
6 correlation found by Dr. Winston was weak.

7 62. As Mr. Allison testified, the addition of the second runway at STIA did not result in  
8 increased aviation demand. The second runway was built after a period of rapid growth at the  
9 airport, but this growth was not sustained after the construction of the runway. The number of  
10 passengers grew at an annual average rate of 14.8 percent in the five years before the runway was  
11 completed and at an average rate of 3.8 percent in the three years after the runway was completed. A  
12 similar pattern occurred with regard to the number of operations. The Examiner found Mr. Allison  
13 testimony credible that this is not an unusual occurrence. Airport activity is typically cyclical  
14 (reflecting economic cycles), with activity growing rapidly for several years then growing more  
15 slowly for several years, and is not dependent on the construction of new runways.

16 63. The Final EIS included at Appendix R, and the Final SEIS included at Appendix D,  
17 analyses of certain "what if" scenarios that respond to the comments that growth in aviation activity  
18 might be higher than forecast. In these appendices, the Port considered the possible impacts if added  
19 airport capacity results in higher aviation activity. In Appendix D of the SEIS, the Port even  
20 considered the potential differences in impacts between (a) a With Project scenario in which  
21 operations and enplanements grew at a 10% faster rate than forecasted and (b) a Do Nothing scenario  
22 in which it was assumed that the number of operations and enplanements would be limited to their  
23 2010 levels.

24 64. The ACC asserted that if Dr. Winston's theory is correct, that air pollution and noise  
25 would increase with the number of operations. However, increased number of operations under the  
26

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1 With Project scenario does not necessarily translate to a comparable increase in air pollution.  
2 Eugene R. Peters is a Director with Landrum & Brown. He has over 10 years of environmental  
3 planning experience and has conducted the analysis of airport-related activity on regional air quality  
4 on airports throughout the country. Mr. Peters provided a detailed analysis in his written testimony  
5 that was consistent with the SEIS conclusion that NOx will decrease even as the number of  
6 operations increases out to 2010, due to the impact of the reductions in delay which accompany the  
7 construction of the 3rd Runway.

8           65. With respect to noise, the Port presented credible testimony from Mr. Jon Woodward.  
9 Mr. Woodward has more than 25 years experience in program design and noise assessment and land  
10 use analysis. He has prepared over 1500 noise contour studies in his career. He has worked on noise  
11 studies at major airports throughout the country, including Dallas-Ft. Worth, Los Angeles  
12 International, Cincinnati, St. Louis, Chicago O'Hare and Toledo. Mr. Woodward was in charge of  
13 preparing the noise contours for the EIS. Mr. Woodward corroborated analysis in the EIS which  
14 demonstrated the declining size of the 65 DNL noise contours under a do-nothing scenario between  
15 1994 and the year 2010. Despite the anticipated increase in operations at STIA, noise impacts are  
16 expected to decline in the future relative to existing conditions. As Mr. Woodward testified, even if  
17 the operations forecast projected by Dr. Winston were to occur, the resulting effect would be an  
18 expected increase of 7/10 of one decibel (0.7 dBA) on average noise levels. Based on the FAA  
19 threshold of significant impact of 1.5 DNL, the 0.7 dBA would not be significant. If any of the  
20 current technological initiatives now under way by NASA achieve even 10% of their goals (i.e., one  
21 decibel reduction), this would more than offset the increased noise levels associated with the  
22 difference in forecasted operations alleged by Dr. Winston.  
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1           **Findings of Fact on the Port and FAA's of Decision To Limit Detailed Analysis in the**  
2           **SEIS to 13 Years (to the Year 2010).**

3           66.     At the time the Master Plan Update EIS was prepared in 1994, the airfares nationally  
4 and at STIA were relatively stable. Thus, those charged with preparing long-term airport forecasts  
5 believed they could consider larger planning horizons than normal.

6           67.     Several factors came together in the time period between the MPU EIS in 1994 and  
7 the SEIS in 1996, each of which added significant uncertainty to the planning efforts of those  
8 professionals charged with attempting to meaningfully evaluate long-term impacts under SEPA and  
9 NEPA. The EIS consultants agreed with the EIS Project Manager Mary Vigilante that these factors  
10 made it very difficult to meaningfully evaluate the environmental impacts of the Master Plan Update  
11 beyond the year 2010.

12           68.     The testimony of the professionals participating in the SEIS establishes that in various  
13 key areas, the SEIS- period of analysis of 13 years falls squarely within the typical range for studies  
14 of this type throughout the country. Mr. Peters testified that the air quality studies varied the study  
15 period from 5-15 years in the future. In the noise area, Mr. Woodward testified that noise contour  
16 studies for new runways typically run on a 10-12 year planning horizon.

17           69.     While the Coalition emphasizes the relationship of the planning period to the  
18 anticipated construction date, the runway in the year 2004, a more proper context is to review the  
19 length of the planning period from the date of the SEIS in 1996. The planning period evaluated by  
20 the Port and FAA was 13 years.

21           70.     One of the principal decision makers in the determination of the planning horizon in  
22 SEIS was the EIS Project Manager Mary Vigilante. In addition to extensive airport project  
23 management experience, Ms. Vigilante has specialized experience in both air quality and noise  
24 analysis fields. She conducted much of the original analysis, as well as the response to comments in  
25

1 all of the project level environmental documents. In addition to the reasons set forth in Appendix D  
2 of the SEIS, she testified credibly that there were rapid changes in aviation activity during the mid-  
3 1990s at STIA, which made forecasting aviation activity very difficult. Ms. Vigilante and all the  
4 experts on the SEIS team concluded that detailed analysis of the years beyond 2010 in the EIS would  
5 be speculative and could lead to a substantially inaccurate evaluation of environmental effects. The  
6 quantification of project-level environmental impacts is dependent on factors such as total aviation  
7 activity, the time of day the activity occurs, the aircraft types, and the engines on the aircraft. Even  
8 slight changes in aircraft types and their associated engine types, for instance, can result in  
9 substantially different impact analysis. Due to the various volatile factors identified and because  
10 aircraft fleet mix and air fares are could not be reasonably predicted beyond 2010, the SEIS  
11 concluded that impacts could not be reasonably evaluated beyond this time period, 13 years into the  
12 future. Ms. Vigilante also described in detail the different forms of future environmental review,  
13 both state and federal, which will analyze possible adverse environmental impacts of the Master Plan  
14 Update during the period after 2010.

15  
16 71. One of the greatest changes following issuance of the Master Plan EIS was the 1996  
17 change in projected airfares announced by the FAA. With respect to the Port's updated aviation  
18 demand forecast prepared for the SEIS, after calibrating for local data, this resulted in an 17%  
19 increase in the number of operations anticipated at STIA for the year 2010 over the number of  
20 operations anticipated under the 1994 Master Plan forecasts. The volatility in projected airfares  
21 represented by the FAA's changed airfare projections makes it more difficult to reasonably estimate  
22 long-term trends in number of aircraft operations, fleet mix, or day/night operations. Moreover,  
23 when the SEIS was prepared, the FAA only estimated airfares to the year 2010 and not beyond.

24 72. The forecasting uncertainty that surfaced in 1996 significantly changed the ability to  
25 analyze long-term forecasts, fleet mix, day/night operations, and created a corresponding uncertainty  
26 for the professionals charged with evaluating long-term air quality and noise impacts. This level of

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1 uncertainty did not exist two and one-half years earlier, when the Master Plan EIS was being  
2 prepared.

3 73. The preparation of the air quality analysis in the SEIS was the product of  
4 collaboration among the three agencies with regulatory authority in this area, the Puget Sound Air  
5 Pollution Control Agency ("PSAPCA"), the Washington State Department of Ecology ("DOE") and  
6 the U.S. Environmental Protection Agency ("EPA"). DOE retained an independent consultant to  
7 assist in detailed review and preparation of comments in its review of the SEIS. All three agencies  
8 participated in the air quality analysis which found that the year 2010 was the logical planning  
9 horizon for air quality impacts. Although the three agencies had many questions during the process  
10 and in their comments on the draft SEIS, all three approved the final air quality analysis contained in  
11 the final SEIS.

12 74. As Mr. Gene Peters testified, the volatility in airfares, forecasts, fleet mix, and other  
13 areas in the period following 1994 made it difficult in 1996 to predict with substantial accuracy or to  
14 reasonably foresee air quality impacts beyond the year 2010.

15 75. The uncertainty of long-term airfare projections and the resulting fluctuation in  
16 aircraft operation forecasts at STIA added a significant element of uncertainty in the ability of the  
17 noise measurement professionals to prepare reliable long-term noise contours in the SEIS. While it  
18 is theoretically possible to run noise contours, as testified by the experienced noise professionals  
19 Paul Dunholter and Jon Woodward, the reliability of this modeling diminishes significantly as one  
20 goes further out in time. Their unrebutted expert testimony was that, while a range of assumptions  
21 or alternatives is theoretically possible, the usefulness of such an exercise is questionable because it  
22 is not likely to lead to meaningful evaluation.

23 76. Because of the lack of reliable data beyond the year 2010 to input into the standard  
24 noise model (the INM model), the noise professionals in the SEIS limited detailed analysis to  
25 thirteen years, because noise impacts analysis beyond that time would be speculative and not likely  
26

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1 to lead to meaningful evaluation. In the future, there will be several additional steps of  
2 environmental review which will be completed when those impacts are more capable of being  
3 meaningfully evaluated. These include Part 150 Noise Compatibility Program, future chapters of the  
4 Port's Master Plan Update process, and any future planning and environmental review required  
5 under the terms of the FAA Record of Decision

6 77. The advent of Southwest Airlines to STIA has since 1994 had a significant impact on  
7 the fleet mix at the Airport by Southwest and its airline competitors. There has been a significant  
8 change from three and four-engine aircraft to medium-sized two-engine jet aircraft. The change in  
9 fleet mix translates directly into significant changes in the resulting air pollution emissions. This  
10 recent volatility made long term analysis of air quality impacts more difficult in 1996 than in 1994

11 78. The inability to reasonably forecast aviation demand beyond 2010 made it impossible  
12 to reasonably model intersection-by-intersection traffic impacts beyond 2010. In addition, there  
13 were also independent changes following issuance of the Master Plan EIS which made meaningful  
14 evaluation of surface transportation impacts speculative in and around STIA beyond 2010. The  
15 long-term analysis of background surface traffic depends to a large extent of the PSRC's regional  
16 model, which was used by traffic expert Jim Edwards and INCA Engineers as the foundation for its  
17 analysis of background traffic in the Master Plan EIS and the SEIS. When the SEIS was getting  
18 underway, there were three major changes affecting arterials and intersections in the vicinity of  
19 STIA, none of which was included in the PSRC model.  
20

21 79. First, the state's largest public infrastructure project, the Regional Transportation  
22 Authority ("RTA") dramatically changed in scope following issuance of the EIS, from a \$13 billion  
23 project to a \$3-4 billion project. This change would radically alter the impact at intersections and  
24 arterials in and around STIA after 2010 in ways that could not be fully understood in 1996, because  
25 the impacts of this change were not yet known or included in the PSRC model.  
26

1           80.     Second, the state highway adjacent to STIA, SR 509, also experienced major planning  
2 changes following issuance of the Master Plan EIS. The route and connections for the proposed  
3 extension of SR 509 to Interstate 5 was changed. Given its proximity to the Airport, this change  
4 would also have very significant impacts on the analysis of traffic intersections in the area after the  
5 year 2010. As explained by Mr. Edwards, the specifics of this new proposal was not known in 1996  
6 and was not included in the PSRC traffic model on which INCA relied to conduct its analysis.

7           81.     Third, the City of SeaTac's proposed Personal Rapid Transit system, which was very  
8 conceptual in 1994 when the EIS was issued, was two years further into the planning process by  
9 1996. As this was proposed in the jurisdiction surrounding STIA, if constructed it too would have  
10 significant impacts on traffic in the area, which impacts were able to be evaluated and not included  
11 in the PSRC model.

12           82.     In addition to showing the uncertainties of forecasting project-specific, intersection-  
13 by-intersection impacts in 1996 for longer than 13 years, the record reflects numerous examples of  
14 ongoing environmental review, to be conducted by the Port and other agencies, of the impacts of the  
15 Master Plan Update improvements after the year 2010, at a time when those impacts can be  
16 meaningfully analyzed. Those future reviews include:

- 17           •     Additional Master Plan-related SEPA review by the Port. The Port Director of STIA, Gina  
18 Marie Lindsay, testified this process would likely get underway in the next several years,
- 19           •     The Port's portion of the Part 150 Noise Compatibility Program. While this is a FAA-  
20 authorized activity, the testimony outlined the Port's role in approving a plan for FAA  
21 consideration. The Port decisions will be subject to SEPA requirements. The scope of this  
22 review includes consideration of noise impacts on affected schools. The Port has a well-  
23 established track record of conducting Part 150 review at regular intervals, and is currently  
24 collecting data for the Part 150 process now underway.  
25  
26

- 1 • Port Review and Action Mandated by the FAA in its Record of Decision. This will be  
2 required prior to 2010 and must include a review of the “adequacy, accuracy, and validity of  
3 the final statement.” Under the terms of the ROD, “if this review identifies additional  
4 significant adverse environmental impacts, the Port will be required to adopt further noise  
5 and land use measures designed to minimize any significant adverse effects found in that  
6 evaluation.”
- 7 • Supplemental Environmental Review for Projects Not Underway by June 2000. Because  
8 many of the Master Plan Update improvements will not be initiated until after the year 2000,  
9 it is likely that a new or updated environmental analysis will occur to cover these projects.
- 10 • Air Quality Conformity Review. Air quality conformity is required under state law (although  
11 the state is applying the duties of the federal Clean Air Act, which have been delegated to the  
12 state and regional agencies.) Under federal law, any action in the Port’s Master Plan Update  
13 which is not commenced within five years must undergo environmental review again.
- 14 • NPDES Permit Renewal Process. Although not directly included in the ACC appeal, the  
15 future SEPA review will include consideration of stormwater and water quality impacts  
16 associated with the Master Plan Update, as the Port must every five years submit a detailed  
17 application for renewal. WAC 173-220-180 (1), (2).

## 18 II. CONCLUSIONS OF LAW

### 19 Conclusions Relating to the Appeal of the Port Commissioners’ Decisions.

20 1. In Case Nos. 96-2-20357-2KNT and 97-2-13908-2KNT, the Coalition is challenging  
21 the legislative decisions of the Port Commissioners adopting Port Resolution 3212 and Port  
22 Resolution 3245. The adoption of these two resolutions were legislative decisions reviewable only  
23 under a constitutional writ of review.  
24

1           2.       Under a constitutional writ, the Court's review is limited to a determination of  
2 whether the Port Commissioners' legislative actions were arbitrary and capricious or illegal. Under  
3 the arbitrary and capricious standard of review, the Coalition must show that the Port's action was  
4 willful and unreasoning, taken without regard to or consideration of the facts and circumstances  
5 surrounding the action. An action by an agency is not arbitrary and capricious when there is room  
6 for two opinions, even though a reviewing court may believe it to be erroneous, if taken after due  
7 consideration.

8           3.       The Coalition claims that the Port has a legal duty under the GMA to comply with  
9 each individual comprehensive plan of the Coalition cities. The Coalition relies exclusively on the  
10 procedural criteria enacted by the state Department of Community Trade and Economic  
11 Development ("CTED") at WAC ch. 365-195 in making this argument. Chapter 36.70A RCW sets  
12 forth the planning requirements for cities and counties subject to GMA. The GMA statute does not  
13 contain any requirement that port districts comply with local comprehensive plans, and there are no  
14 planning or compliance requirements in Chapter 36.70A RCW for special districts, including port  
15 districts.

16           4.       For reasons set forth in a separate Memorandum Ruling entered this day, the Court  
17 has concluded that even if WAC Ch. 365-195 were read to apply to the Port, its provisions in fact  
18 undercut the challenges by the ACC to the Port's actions.

19           5.       In the 1990 legislative session, the Washington Legislature passed a provision for  
20 inclusion in Chapter 36.70A RCW that would apply GMA plan consistency requirements to special  
21 districts. 1990 Wash. Laws, 1990 1<sup>st</sup> Ex. Sess. Ch. 17, § 18. This provision explicitly exempted port  
22 districts from its requirements. The Governor vetoed this provision, in part because it did not apply  
23 GMA plan consistency requirements to port districts. The Legislature had intended that the GMA's  
24 requirements not extend to port districts. The Governor's veto does not and cannot act as an  
25 affirmative enactment of the philosophy or rationale behind his veto. The Court's decision in this  
26 case is therefore based on its reading of the law apart from this legislation and veto.

FINDINGS OF FACT AND CONCLUSIONS OF LAW - 30

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1           6.       Petitioners suggest that the legally binding nature of the CTED procedural criteria is  
2 demonstrated by their use by the Growth Management Hearings Board. However, the Board  
3 decisions show that the Board has consistently held that the procedural criteria are “purely advisory”  
4 and have no regulatory effect. See, West Seattle Defense Fund v. Seattle, CPSGMHB Case No. 96-  
5 3-0003 (Final Decision and Order March 24, 1997); Children’s Alliance v. Bellevue, CPSGMHB  
6 Case No. 95-3-0011 (Order Granting Dispositive Motion); Pilchuck v. Snohomish County,  
7 CPSGMHB Case No. 95-3-0047 (Final Decision and Order December 6, 1995).

8           **Conclusions of Law Regarding 47.80.030(3).**

9           7.       While the GMA does not contain any legally binding provisions governing port  
10 districts as port districts, a portion of the GMA does apply to major transportation projects,  
11 irrespective of what type of agency is the project sponsor. In particular, RCW 47.80.030(3) provides  
12 that:

13                   (3) All transportation projects, programs and transportation management measures within the  
14 region that have an impact upon regional facilities or services must be consistent with the  
plan and with the adopted regional growth and transportation strategies.

15           The “plan” referred to in this case is the Regional Transportation Plan (“RTP”) adopted by  
16 PSRC. The “adopted regional growth and transportation strategies” in this case refers to the  
17 general policies in VISION 2020, also adopted by the PSRC, of which the RTP is a part.  
18 Therefore, RCW 47.80.030(3) requires that a project such as the STIA expansion, which is a  
19 transportation project with impacts upon regional facilities or services, must be consistent  
20 with the RTP and with VISION 2020.

21           8.       The Port’s Master Plan Update development actions are consistent with the  
22 RTP. Plans for a third runway at STIA are expressly incorporated into the RTP, if the Port  
23 agrees to the additional mitigation measures specified by the PSRC. In Resolution 3212, and  
24 again in Resolution 3245, the Port committed to those mitigation measures.

1           9.     The Court has reviewed the broad, general planning policies of VISION 2020,  
2 including the policies regarding the siting of essential public facilities (RF-3 and RF-3.3)  
3 although the Court recognizes that these policies are not to be read in isolation from all other  
4 applicable policies in VISION 2020. The Court has also thoroughly reviewed the Port  
5 decisions in Resolution 3212 and Resolution 3245, including the mitigation committed to by  
6 the Port in those resolutions and elsewhere, and the mitigation required under federal law.  
7 The Port decisions appropriately considered the range of additional local, state and federal  
8 permitting requirements, as authorized by RCW 36.70A.420. The Coalition has not shown  
9 that the Port Commissioners' decision violates RCW 47.80.030(3) or is inconsistent with  
10 either the RTP or VISION 2020.

11           10.    Based on the record before the Court and the mitigation to which the Port has  
12 committed, the Coalition has not met its burden of proving that the Port Commissioners  
13 adoption of Resolutions 3212 and 3245 was either arbitrary and capricious or illegal.

14           **Conclusions Regarding the Growth Management Hearings Board Decision.**

15           11.    The Court also is reviewing a final decision and order of the Central Puget  
16 Sound Growth Management Hearings Board under the Washington Administrative  
17 Procedures Act ("APA"). That case is King County Case No. 97-2-22276-1KNT.

18           12.    Under the APA, the Coalition has the burden of proving that (1) the Board  
19 erroneously interpreted or applied the law, (2) the GMA Board's FDO is not supported by  
20 substantial evidence, or (3) the GMA Board's FDO is arbitrary or capricious. RCW  
21 34.05.570(3).

22           13.    The substantial evidence standard is a deferential standard of review that  
23 requires the Court to view the evidence in the light most favorable to the party prevailing in  
24 the highest forum that has fact-finding authority. Freeburg v. Seattle, 71 Wn. App. 367, 371,  
25 859 P.2d 610 (1993). The substantial evidence test requires that the Court accept the fact  
26

1 finder's views regarding the weight to be given competing inferences from the evidence.

2 Department of Corrections v. Kennewick, 86 Wn. App. 521, 529-30, 937 P.2d 1119 (1997).

3 14. On purely legal matters, the Court should give considerable deference to the  
4 Board's interpretation of the law, if it is an area in which the Board has special expertise.

5 Northwest Steelhead & Salmon Council v. Department of Fisheries, 78 Wn. App. 778, 786-

6 87, 896 P.2d 1292 (1995); Peter Schroeder Architects v. Bellevue, 83 Wn. App. 188, 191,

7 920 P.2d 1216 (1996). Because the Board is the expert agency created by the Legislature to

8 determine issues of GMA compliance, the Board's legal interpretation of any ambiguous

9 GMA provisions should be given substantial deference by the Court. King County v.

10 Central Puget Sound Growth Management Hearings Board, \_\_\_ Wn. App. \_\_\_, 951 P.2d

11 1151, 1157 (March 2, 1998).

12 15. Under the arbitrary and capricious standard, the Coalition must show that the  
13 challenged agency action was willful and unreasoning, taken without regard to or

14 consideration of the facts and circumstances surrounding the action. Saldin Securities, Inc. v.

15 Snohomish County, 134 Wn.2d 288, 296, 949 P.2d 370 (1998). An action by an agency is

16 not arbitrary and capricious where there is room for two opinions, even if a reviewing court

17 believes it to be erroneous. Abbenhaus v. Yakima, 89 Wn.2d 855, 858-59, 576 P.2d 888

18 (1978).

19 16. The Board correctly ruled that the requirements of RCW 36.70A.200(2) apply  
20 to all essential public facilities (EPFs), whether or not the EPF was in existence prior to the

21 GMA. The Board also correctly determined that STIA was an EPF subject to the protections

22 granted by RCW 36.70A.200. The GMA refers simply to essential public facilities, which

23 include airports, not to "proposed" or "future" or "new" essential public facilities. This plain

24 language employed in RCW 36.70A.200 provided the GMA Board with no basis for

25 distinguishing between existing and future EPFs

26

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1           17.     The Board did not deviate from, or violate, any statutory rule of construction  
2 when it decided that RCW 36.70A.200 protects all EPFs, including those existing prior to the  
3 enactment of the GMA.

4           18.     The Board's classification of STIA, and its proposed expansion as an EPF, did  
5 not require retroactive application of the GMA. Bayless v. Community College Dist.  
6 No. XIX, 84 Wn. App. 309, 315, 927 P.2d 254 (1996). The key time for application of RCW  
7 36.70A.300 was not when STIA first came into existence, but when the City of Des Moines  
8 amended its GMA plan.

9           19.     The Board properly construed RCW 36.70A.200(2) to prohibit local  
10 preclusion of activities necessary to construct and operate an EPF. The legislative purpose of  
11 RCW 36.70.200(2) would be defeated if local governments could prevent the siting of an  
12 EPF by preventing an activity essential to the EPFs construction or operation.

13           20.     Substantial evidence in the record supports the Board's determinations that (1)  
14 fill dirt hauling is essential to the construction of the third runway and (2) trucks hauling fill  
15 dirt will have to travel through Des Moines or other adjacent cities to reach the construction  
16 site of the third runway.

17           21.     The Board's jurisdiction is limited to deciding whether city and county  
18 comprehensive plans and development regulations, as adopted in the abstract, comply with  
19 the requirements of the GMA codified in RCW Ch. 36.70A. When comprehensive plan  
20 provisions are appealed to the Board, review never relates to any specific project because  
21 comprehensive plans have no regulatory effect. Citizens for Mount Vernon v. City of Mount  
22 Vernon, 133 Wn.2d 861, 873, 947 P.2d 1208 (1997). In deciding whether comprehensive  
23 plan policies and development regulations comply with GMA requirements, the Board  
24 necessarily must consider potential consequences based upon the terms and scope of the  
25 challenged local enactment.

26  
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1 22. The Board's discussion of and findings related to specific activities which are  
2 reasonably likely to occur. The Board properly decided that the Des Moines Plan violated  
3 RCW 36.70A.200(2). The exact amount of cost or delay did not have to be conclusively  
4 established for the GMA Board to determine that the Des Moines Plan policies in question  
5 would as drafted be capable of precluding necessary support activities, such as fill dirt  
6 hauling, and directly or indirectly stopping construction of the third runway, because the  
7 policies at issue in the Des Moines plan unequivocally committed the City to opposing any  
8 activity supporting the expansion of STIA. The Board's holding is consistent with the  
9 purpose and intent of RCW 36.70A.200, and is not arbitrary or capricious. The Board did  
10 not have to wait for that plan to be so applied.

11 23. The Board properly ruled that because the Des Moines Plan had the effect of  
12 making STIA expansion incapable of being accomplished by means at the Port's command,  
13 it violated RCW 36.70A.200(2). Under RCW 36.70A.200(2), a city or county is not  
14 permitted to "preclude" the siting of an essential public facility. The verb "preclude" means  
15 to "render impossible or impracticable." Children's Alliance v. Bellevue, supra.  
16 Impracticable is defined as that which cannot be accomplished by the means at the party's  
17 command. Merriam Webster's Collegiate Dictionary. The Board properly determined that  
18 the Port would be precluded from constructing the third runway because, under numerous  
19 Des Moines Plan policies, the Port could not proceed with construction by the means at the  
20 Port's command. The Board's holding is consistent with the purpose and intent of RCW  
21 36.70A.200, and is not arbitrary or capricious.

22 24. Based on the record before the Board, the Board's decision in CPSGMHB case  
23 97-3-0014 was not an error of law, was supported by substantial evidence, and was not  
24 arbitrary and capricious.

25 **AR 013057**

26 FINDINGS OF FACT AND CONCLUSIONS OF LAW - 35

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1                   **Conclusions Related to the Hearing Examiner Decision that the Master Plan**  
2                   **Update EIS and the Master Plan Update SEIS Are Legally Adequate.**

3                   **General Conclusions Of Law.**

4                   25.     In Case No. 98-2-04911-1KNT, the Coalition has appealed the Hearing Examiner's  
5                   decision that the EIS and SEIS are legally adequate. EIS adequacy has been characterized as a  
6                   question of law. Questions of law generally are subject to a de novo standard of judicial review.  
7                   Leschi Improvement Council v. Washington State Highway Commission, 84 Wn.2d 271, 280-87,  
8                   525 P.2d 774 (1974). However, the de novo standard of review is specifically qualified by SEPA's  
9                   statutory requirement that agency determinations of EIS adequacy are entitled to substantial weight  
10                  in administrative and judicial appeals. RCW 43.21C.090. OPAL v. Adams County, 128 Wn. 2d  
11                  869, 913 P.2d 793 (1995).

12                 26.     The legal standard by which EIS adequacy must be determined is the "rule of reason."

13                 27.     Washington courts consistently have articulated the "rule of reason" as a "broad,  
14                 flexible cost-effectiveness standard." Citizens Alliance v. Auburn, 126 Wn.2d 356, 362, 894 P.2d  
15                 1300 (1995). Under this standard, an EIS is not to be a "compendium of every conceivable effect or  
16                 alternative to a proposed project." Toandos Peninsula Ass'n v. Jefferson County, 32 Wn. App. 473,  
17                 483, 648 P.2d 448 (1982). Rather, an EIS is required to include only a "reasonably thorough  
18                 discussion of the significant aspects of the probable environmental consequences" and provide  
19                 "sufficient information to make a reasoned decision." OPAL v. Adams County, 128 Wash. 2d at  
20                 875; Citizens Alliance v. Auburn, 126 Wash. 2d at 362.

21                 28.     Under the "rule of reason," an EIS is not required to identify or analyze impacts that  
22                 are "remote and speculative." Cheney v. Mountlake Terrace, 87 Wash. 2d 338, 344, 552 P.2d 184  
23                 (1986).

24  
25  
26  
FINDINGS OF FACT AND CONCLUSIONS OF LAW - 36

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1           29.     The lead agency's determination that potential environmental impacts are remote or  
2 speculative and need not be addressed in an EIS is entitled to substantial weight in an appeal of EIS  
3 adequacy. RCW 43.21C.090. OPAL v. Adams County, supra.

4           30.     Under the rule of reason, an agency has broad discretion in deciding what potential  
5 mitigation measures should be included in an EIS. SWAP v. Okanogan County, supra; Robertson v.  
6 Methow Valley Citizens Coun., 490 U.S. 332, 359, 109 S.Ct. 1835, 104 L.Ed.2d 351 (1989).  
7 Neither SEPA nor NEPA require that an EIS include a complete or detailed mitigation plan. Id., 66  
8 Wn. App. at 447.

9           31.     An agency determination of the nature and extent of potential mitigation to include in  
10 an EIS is entitled to substantial weight. RCW 43.21C.090. SWAP v. Okanogan County, supra, 66  
11 Wn. App. at 447-448.

#### 12           **Conclusions Of Law Relating to the Aviation Forecast Issue.**

13           32.     Washington courts have followed federal NEPA cases when construing similar  
14 provisions of SEPA. Eastlake Community Council v. Roanoke Associates, 82 Wn.2d 475, 488 (fn.  
15 5. 513 P.2d 36 (1973).

16           33.     The Port and the FAA are agencies with expertise in forecasting aviation demand and  
17 should be granted deference in choosing the appropriate methodology for forecasting aviation  
18 activity. City of Grapevine v. Dept. of Transportation, 17 F.3d 1502, 1507 (D.C. Cir. 1994) (court  
19 deferred to the agency's expertise in choosing the appropriate way to measure noise); Seattle  
20 Community Council Federation v. Federal Aviation Administration, 961 F.2d 829, 833-34 (9th Cir.  
21 1992) ("[I]t is within an agency's discretion to determine which testing methods are most  
22 appropriate."); Citizens Against Burlington, 9308 F.2d at 200-201 (FAA's choice of methodology to  
23 measure the impacts of noise on the environment was an informed decision to which the court should  
24 defer); Sierra Club v. Dept. of Transportation, 753 F.2d 120, 128 (D.C. Cir. 1985) (it is within the  
25 expertise and discretion of the FAA to determine the proper method to measure airport noise);  
26

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1 Florida Wildlife Federation v. Goldschmidt, 506 F. Supp. 350, 376-77 (1981) (the traffic forecasting  
2 methodology used in an EIS was adequate where the modeling was consistent with the state of the  
3 art at the time). The United States Supreme Court has agreed that a reviewing court must be its most  
4 deferential when examining the decision of an expert agency which is making predictions within its  
5 area of special expertise. Baltimore Gas and Electric Co. v. Natural Resources Defense Council, 462  
6 U.S. 87, 103, 76 L.Ed.2d 437, 103 S.Ct. 2246 (1983).

7 34. When an agency is presented with conflicting expert opinion on an issue, it is the  
8 agency's job and not the job of the reviewing appellate body, to resolve those differences. Webb v.  
9 Gorsuch, 699 F.2d 157, 160 (4th Cir. 1983).

10 35. The Port and the FAA used a forecasting methodology for the SEIS that was  
11 consistent with industry-accepted standards and proven reliable over time. The Master Plan Update  
12 forecasts were reviewed and approved by the FAA's Northwest Mountain Region and the Forecast  
13 Branch of the FAA Headquarters in Washington, D.C. The decision to measure aviation demand by  
14 the aviation forecast methodology chosen is legally adequate under the rule of reason.

15 36. Under the rule of reason, the Port and FAA reasonably exercised their discretion in  
16 determining that, during the planning horizon for the Master Plan Update, (a) the construction of the  
17 proposed improvements, including the third runway, would not cause significant new growth in  
18 aviation demand and (b) not constructing the proposed improvements would not cause significant  
19 decrease in demand. Therefore, the aviation demand forecasts that served as the basis for the SEIS  
20 analysis did not understate aviation activity under the With Project scenario and did not overstate  
21 activity under the Do Nothing scenario.

22 37. The EISs analyzed the potential impacts of a higher aviation forecast and compared  
23 these impacts to those of a constrained forecast in Appendix R to the FEIS and Appendix D to the  
24 FSEIS. Based on the difficulty to reasonably conduct aviation demand forecasting beyond the year  
25 2010, this analysis was sufficient under the rule of reason.

26 FINDINGS OF FACT AND CONCLUSIONS OF LAW - 38

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1 38. The difference of opinion between the ACC's expert witness and the Port's expert  
2 witnesses was discussed in the EISs, which allowed the decision-makers to be informed on this issue  
3 prior to making their decisions. The lead agency's decision of which expert opinion to follow and  
4 which forecasting methodology to adopt was legally sufficient under the rule of reason.

5 **Conclusions of Law Relating to the Lead Agency's Decision to Limit Detailed**  
6 **Environmental Impact Analysis to the 2010 Planning Horizon.**

7 39. Under SEPA, the contents of environmental review depend on the lead agency's  
8 existing planning and decision-making process, and on the time when alternatives can be most  
9 meaningfully evaluated. WAC 197-11-060(2)(a)

10 40. SEPA's provisions relating to analyzing the long-term impacts of a proposal over the  
11 life-time of the project must be viewed and applied in the context of related SEPA provisions such as  
12 WAC 197-11-060(4), which require consideration of impacts that are "likely, not merely  
13 speculative."

14 41. SEPA only requires a reasonably thorough discussion of the probable environmental  
15 consequences of an agency's decision. OPAL v. Adams County, 128 Wn.2d 869, 875, 913 P.2d 793  
16 (1996).

17 42. When discussing potential impacts, an EIS is only required to consider impacts that  
18 are "likely, not merely speculative" and remote or speculative impacts need not be discussed.  
19 WAC 197-11-060(a); Mentor v. Kitsap County, 22 Wn. App. 285, 289, 588 P.2d 1226 (1978);  
20 Cheney v. Mountlake Terrace, 87 Wn.2d 338, 346, 552 P.2d 184 (1976).

21 43. The decision in the SEIS to limit the detailed analysis of impacts to the 13-year  
22 planning horizon, or the year 2010, was a reasonable decision and was legally sufficient under the  
23 rule of reason.

24 44. The conclusion in the SEIS that detailed analysis of environmental impacts beyond  
25 the year 2010 would not be capable of meaningful evaluation was a reasonable decision and  
26

1 sufficient under the rule of reason, particularly given the extent to which subsequent environmental  
2 review and additional mitigation, if appropriate, would take place under both state and federal  
3 processes.

4 45. The purpose of SEPA was well served with the SEIS. Even though detailed  
5 evaluation beyond the year 2010 was speculative and thus not likely to lead to meaningful  
6 evaluation, the drafters of the SEIS included at Appendix D an extrapolated estimate of possible  
7 impacts in the year 2020 in order to provide decision-makers with the analysis of possible impacts  
8 through the year 2020 prior to their taking action. The confirmation in Port Resolution 3245 by the  
9 Port Commissioners of the information in the EIS through the year 2020 indicates that this goal was  
10 accomplished. Moreover, the discussion of the information contained in the EIS at Attachment A to  
11 Resolution No. 3245 shows that SEPA's goal of providing decision-makers with information to  
12 ensure an informed decision was well served in this case.

### 13 III. ORDER

14 Based on the foregoing Findings of Fact and Conclusions of Law, and on the Court's  
15 Memorandum Ruling on Application of WAC Ch. 365-195, it is ORDERED, ADJUDGED and  
16 DECREED as follows:

- 17
- 18 1. The plaintiffs' claims brought in King County Case No. 96-2-20357-2KNT, in King  
19 County Case No. 97-2-13908-2KNT, in King County Case No. 97-2-22276-1KNT, and  
20 in King County Case No. 98-2-04911-1KNT should be, and hereby are, DISMISSED  
21 WITH PREJUDICE.

22 /

23 /

24 /

25 /

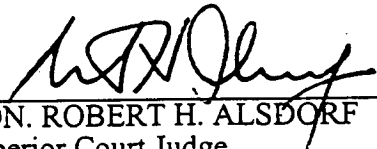
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**AR 013062**

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2. The Port of Seattle and the Central Puget Sound Growth Management Hearings Board are the prevailing parties in this action and are entitled to costs and attorney fees to the extent provided by law. The prevailing parties shall file a Cost Bill and any other appropriate documentation and briefing related thereto within ten days of receipt of this order.

DATED this 9<sup>th</sup> day of July, 1998.

  
\_\_\_\_\_  
HON. ROBERT H. ALSDORF  
Superior Court Judge

**AR 013063**



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Co./Dept.		Co.	Judge Alsdorf		
Phone #	(206) 447-4400	Phone #	(206) 205-2620		
Fax #	(206) 447-9700	Fax #	(206) 205-2669		

IN THE SUPERIOR COURT OF THE STATE OF WASHINGTON  
IN AND FOR THE COUNTY OF KING

THE CITY OF DES MOINES, et al.,  
Plaintiffs/Petitioners,

vs.

THE PUGET SOUND REGIONAL  
COUNCIL, et al.,

Defendants/Respondents.

No. 96-2-20357-2 KNT

No. 97-2-13908-2 KNT

No. 97-2-22276-1 KNT

No. 98-2-04911-1 KNT

(CONSOLIDATED CASES)

CITY OF DES MOINES, et al.,

Plaintiffs/Petitioners,

vs.

PORT OF SEATTLE, et al.,

Defendants/Respondents.

MEMORANDUM RULING ON

APPLICATION OF WAC Ch. 365-195

CITY OF DES MOINES, et al.,

Petitioners,

vs.

CENTRAL PUGET SOUND GROWTH  
MANAGEMENT HEARINGS BOARD, et al.,

Respondents.

MEMORANDUM RULING ON  
APPLICATION OF WAC Ch. 365-195

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Regional Justice Center  
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(206) 205-2620

1 AIRPORT COMMUNITIES COALITION, et )  
 2 al., )  
 3 Plaintiffs/Petitioners, )  
 4 vs. )  
 5 PORT OF SEATTLE, et al., )  
 6 Defendants/Respondents. )

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7 In January, 1998, this Court considered plaintiff-petitioners' claims against the Puget  
 8 Sound Regional Council ("PSRC"). The plaintiff-petitioners there contended that RCW  
 9 47.80.023 gave their comprehensive plans primacy over the plans of the PSRC, and required the  
 10 PSRC to conform its plans to theirs. The Court concluded that that argument was based on a  
 11 misunderstanding of the statute.  
 12

13  
 14 In this proceeding, the plaintiff-petitioners contend that the Procedural Criteria for  
 15 Adopting Comprehensive Plans and Development Regulations as set forth in Chapter 365-195 of  
 16 the Washington Administrative Code "unambiguously *require*" the Port to develop its plans for  
 17 the Seattle-Tacoma International Airport ("STIA") in a way that "complies with" the neighboring  
 18 cities' comprehensive plans and development regulations. See, Cities' Trial Memorandum, at 31  
 19 (emphasis added).  
 20

21 The Court herein examines plaintiff-petitioners' assertion that the WAC effectively  
 22 requires the Port's plans and actions to be governed by local comprehensive plans.  
 23

24 A. Do the CTED Regulations Establish Requirements of the Port?

25 Fundamental to plaintiff-petitioners' argument is the proposition that the regulations  
 26 require certain actions of the Port. Section 030(5) of the regulations explicitly states that the  
 27

1 regulations apply only to jurisdictions covered by RCW 36.70A.040. That section of the GMA  
2 is limited to cities and counties. The Port is neither.

3 Even were the Port a covered entity, the regulations would require nothing of it. Section  
4  
5 030 states simply that this chapter of the regulations is advisory:

- 6 (1) This chapter makes recommendations. . . The recommendations set forth are intended  
7 as a listing of possible choices, but compliance with the requirements of the [Growth  
8 Management] act can be achieved without using all of the suggestions made here or  
9 by adopting other approaches.  
10 (2) These criteria are not meant to represent a minimum list of actions which must be  
11 taken. . .  
12 (3) . . . [C]ompliance with these criteria is not a prerequisite to a finding of compliance  
13 with the act.

14 In Section 040(2), the Department recites that its purpose "is to provide assistance in interpreting  
15 the act, not to add provisions and meanings beyond those intended by the legislature." Thus, the  
16 regulations are advisory only, and do not expand or alter statutory requirements.

17 Plaintiff-petitioners nonetheless rely on Section 770(2) as establishing a requirement that  
18 the Port comply with the cities' plans. Yet the language of that section cannot subject the Port to  
19 the GMA in any way that is not already statutorily required, despite its careful phrasing. It  
20 states:

21 Except where any specific enactment may state the contrary, the department interprets the  
22 GMA as requiring that regional agencies and special districts comply with the  
23 comprehensive plans and development regulations developed under the act.

24 The opening phrase "Except where any specific enactment may state the contrary" effectively  
25 concedes that the statutory language, such as RCW 36.70A.040, still controls.

26 In sum, the regulations may be examined simply for such assistance as they may provide  
27 in interpreting the act. They establish no requirements, even for covered entities. They explicitly  
28

1 disallow meanings or standards different from those which are already present in the Growth  
2 Management Act.

3 **B. Do the CTED Regulations Establish Any Form of Primacy for City Plans?**

4  
5 There is an additional defect in plaintiff-petitioners' arguments beyond the fact that the  
6 regulations do not cover the Port and in any event establish no affirmative requirements of any  
7 entity. That defect is readily apparent upon examination of Section 770(2) of the CTED  
8 regulations. Plaintiff-petitioners have ignored the significant limitation expressed in the last  
9 three words of that regulation. The final three words require deference only to those plans and  
10 regulations that have been developed "under the act", i.e., in conformity with the GMA. No  
11 deference is due under the GMA to any city comprehensive plan or development regulation  
12 which itself does not conform to the requirements of the GMA. Comprehensive plans to which  
13 deference is due cannot be those which consider only the needs or wants of their particular  
14 jurisdiction.  
15  
16

17  
18 Plaintiff-petitioners have urged this Court to be guided by the CTED regulations. Further  
19 examination of the CTED regulations clarifies what the department considers necessary in order  
20 for local comprehensive plans to be in conformity with the GMA. The very first section of the  
21 regulations suggests not just that local plans should be internally consistent, but also that they  
22 should be consistent with "county-wide planning policies and . . . the plans of other counties and  
23 cities where there are common borders or related regional issues." Section 010(4).  
24

25  
26 A jurisdiction's plan which contains a pledge not to cooperate with or implement any  
27 plans or decisions which "negatively affect" its residents or businesses would conflict with what  
28 CTEI has declared to be that jurisdiction's fundamental duty to be consistent with and cooperate

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1 with neighboring jurisdictions. Moreover, a plan which pledges flat opposition to a facility that  
2 increases "adverse impacts" on the jurisdiction is contrary to the CTED declaration of what is  
3 appropriate in inter-jurisdictional consistency and cooperation. A plan which promotes its own  
4 self-interest without regard to the interests or needs of the region and of neighboring jurisdictions  
5 simply is not the type of plan that can be deemed to have been developed "under the act" or to be  
6 one to which deference is due.  
7

8  
9 The CTED regulations nowhere shift away from this emphasis on the primacy of inter-  
10 jurisdictional coordination over the protection of any one jurisdiction's self-interests. For  
11 example, Section 070(7) provides that inter-jurisdictional consistency is met by plans "which are  
12 consistent with and carry out the relevant county-wide planning policies." In effect, cities are to  
13 coordinate with that which has been declared to be of county-wide interest.  
14

15 In a similar vein, Section 220 directs not only that local jurisdictions consider developing  
16 local definitions of certain key terms such as "Essential public facilities", but also that such  
17 definitions "should *in every case* be consistent with county-wide planning policies" (emphasis  
18 added). This interpretation further undercuts any argument of the cities' primacy, and suggests  
19 that the scope of protection for essential public facilities is to be viewed and determined from a  
20 broader perspective.  
21

22  
23 Section 325(2)(b) recommends that the local plan's transportation element include a  
24 discussion of how it is "consistent with the regional transportation plan" and of strategies which  
25 "promote the regional transportation plan." Section 325(2)(i)(i) then suggests that all  
26 jurisdictions should "assess the impacts of their transportation and land use decisions on adjacent  
27 jurisdictions." Subsection (C) thereof states explicitly

28  
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1 Local jurisdictions should also define their community's role in the regional  
2 transportation and land use strategy and *produce transportation and land use plans, and*  
3 *development regulations which promote that role.* (emphasis added)

4 Such regulatory provisions do not support plaintiff-petitioners' argument that the CTED  
5 regulations reflect, let alone establish, the primacy of their plans over the Port's, or any argument  
6 that a promised refusal to cooperate with any other body whose plans may negatively affect them  
7 could be considered action in conformity with the GMA.

8  
9 Subsection 325(2)(i)(ii) bolsters the conclusion that under these regulations local actions,  
10 plans and regulations such as those drafted by Des Moines would be deemed to be in violation of  
11 the CMA. That subsection states:

12 All transportation projects which have an impact on the regional transportation system  
13 must be consistent with the regional transportation plan as defined by RCW 47.80.030.

14 Sections 510 and 520 of the regulations likewise provide that local levels of service are to  
15 conform to the regional transportation plan, and that each local comprehensive plan should  
16 demonstrate that county-wide planning policies have been followed in its development.

17  
18 Finally, Section 750(2) removes any possible argument of local primacy over  
19 transportation projects by reciting that RTPO's

20  
21 were expressly given responsibilities for ensuring the consistency of transportation  
22 planning throughout a region containing multiple local governmental jurisdictions.

23 If plaintiff-petitioners are correct that the CTED regulations provide persuasive authority  
24 concerning the application of the GMA to the current conflict between the ACC cities and the  
25 Port, it is clear that this authority is to be read against their claim of primacy. The regulations as  
26 a whole cannot reasonably be read to support their position that the Port should defer to their  
27 comprehensive plan or plans, except in the very limited situation where it is proven that their  
28

1 own plans have been developed in conformity with the GMA. On this, plaintiff-petitioners bear  
 2 the burden of proof. *See* Section 050 of the CTED regulations. A planning jurisdiction must  
 3 demonstrate that it has complied with the act, particularly by developing plans in a cooperative  
 4 fashion and in reasonable conformity to county-wide and RTPO planning. *Id.* Even were  
 5 deference due, it would not be due to local plans which ignore and combat regional cooperation.  
 6

7 C. Do the CTED Regulations Support Plaintiff-Petitioners' Arguments as to EPF's?  
 8

9 Plaintiff-petitioners have urged this Court to reject the Central Puget Sound Growth  
 10 Management Hearings Board's interpretation and application of the term "essential public  
 11 facilities" under RCW 36.70A.200. However, the CTED regulations on which they purport to  
 12 rely undercut their theory.  
 13

14 For example, plaintiffs have urged this Court to rely on the language of Section  
 15 340(2)(b)(iv) of the CTED regulations. That section states that when EPF's are to be provided  
 16 by special districts, the plans of that special district must be consistent with the local  
 17 comprehensive plans. If these regulations were not merely advisory, and if there were no other  
 18 CTED regulation than this one subsection, the cities' argument of primacy might be more  
 19 persuasive. However, taken in the context of all of the regulations read as a whole, plaintiff-  
 20 petitioners' argument fails.  
 21

22 Their cited subsection, 340(2)(b)(iv), must be read as part of the very section in which it  
 23 appears. That section starts by stating, at 340(2)(a)(i), that in identifying EPFs, the "broadest  
 24 view" should be taken of what constitutes an essential public facility, and that it should include  
 25 "the full range of services" provided both by government and by private entities. Moreover,  
 26  
 27  
 28

1 immediately after the subsection cited by plaintiff-petitioners, subsection 340(2)(c) states that no  
2 comprehensive plan may "directly or indirectly" preclude the siting of essential public facilities.

3  
4 With regard to the scope of the definition of "essential public facilities" the department  
5 suggested in Section 070(4) that planning jurisdictions should be guided by *but not limited to* the  
6 examples set forth in the statute. As a further reflection of this broad reading, the department  
7 even added that it is

8  
9 not necessary that facilities be publicly owned. If the services involved meet a locally  
10 accepted definition of public service, the supporting facilities for the services may be  
included on the list, regardless of ownership.

11 This broad departmental interpretation of the phrase "essential public facility" is fully consonant  
12 with the Hearings Board's broad interpretation of the meaning and scope of the EPF provision  
13 under RCW 36.70A.200.  
14

15 A reading that RCW 36.70A.200 covers the siting of additional airport capacity, whether  
16 it is ultimately sited at Everett, Moses Lake, or Boeing field, or at STIA as a third runway, is a  
17 fair reading and fully in compliance with the CTED advisory regulations. The fact that the siting  
18 of additional airport capacity may, depending upon its ultimate location, be described  
19 alternatively either as the siting of a new facility or as the expansion of an existing facility,  
20 reflects a distinction without a difference. In both cases, a particular function - additional airport  
21 capacity - is being sited. Such a reading closely tracks the CTED mandate of a broad reading of  
22 EPF: The Board's ruling therefore did not erroneously interpret the law.  
23  
24

25 The Board's reading that the EPF provision covers not just the physical structure of the  
26 facility itself but also all necessary services for the construction or operation of the facility  
27 closely tracks the language of the CTED regulations, at Section 070(4), where coverage is



1 suggested by the department even for privately owned facilities providing a public *service*, and  
2 Section 340(2)(c), which holds that no plan is to "directly or indirectly" preclude the siting of  
3 EPF's.  
4

5 Finally, nothing in the Act or in logic supports a reading that a facility that existed prior  
6 to the adoption of the GMA is not subject to the EPF provisions of the GMA. Plaintiff-  
7 petitioners argue that applying one or more provisions of the GMA to pre-existing entities is an  
8 invalid retroactive application of the law. If that argument were carried to its logical extreme,  
9 then pre-existing entities would be exempt from any such laws. Among other consequences of  
10 such a reading would be that such facilities could expand without restraint. An absurd reading of  
11 the statute is not to be made.  
12  
13

14 D. Does HB 1487 Assist the Court in Interpreting RCW 36.70A.200?

15 On the day of trial, plaintiff-petitioners presented to the Court the text of HB 1487, a bill  
16 which was passed in March, 1998, seven months after the Hearings Board issued its decision.  
17 Plaintiff-petitioners argue that this new bill supports their claim that the Hearings Board's  
18 decision was in error.  
19

20 The bill does not criticize or reject a broad definition of the scope of EPF coverage, such  
21 as that employed by the Board. The bill on its face does not even apply to airports. Inasmuch as  
22 the legislative history indicates that the language of the bill was drafted in such a way as to be  
23 airport neutral and thereby to skirt the political controversies in which STIA has been long  
24 embroiled, neither the rule of "expression unius est exclusio alterius" nor the argument that the  
25 EPF definition has now been legislatively clarified to include airport improvements is available  
26  
27  
28 to either side in these four lawsuits.

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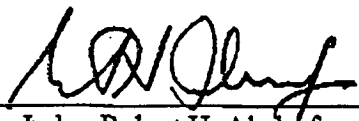
1 HB 1487 does not assist in the interpretation of RCW 36.70A.200. It is disregarded by  
2 this Court in its affirmance of the Hearings Board's decision below.

3  
4 CONCLUSION

5 The Court is to sustain the administrative decisions made below unless they have been  
6 shown to be arbitrary and capricious, or unlawful, or unsupported by substantial evidence, or  
7 based upon an erroneous conclusion of law.

8  
9 The plaintiff-petitioners have failed to prove that WAC Ch. 365-195 renders the Port's  
10 resolutions unlawful or that the administrative reviews conducted below erroneously interpreted  
11 the law. In this trial, as in the January 1998 proceeding, plaintiff-petitioners based their  
12 position on a misreading of the statute and of the regulations as a whole. For the reasons set  
13 forth below, and in the Findings and Conclusions separately filed this day, their claims are  
14 dismissed in each of the four cases here under review.

15  
16 IT IS SO ORDERED, this 9<sup>th</sup> day of July, 1998.

17  
18  
19   
20 \_\_\_\_\_  
21 Judge Robert H. Alsdorf  
22 KING COUNTY SUPERIOR COURT  
23  
24  
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**D**

**AR 013074**

**FILE**  
IN CLERK'S OFFICE  
COURT OF APPEALS  
STATE OF WASHINGTON-DIVISION I  
DATE: **NOV 15 1999**  
*Joe C. Kennedy*  
CHIEF JUDGE

IN THE COURT OF APPEALS OF THE STATE OF WASHINGTON

THE CITY OF DES MOINES, THE CITY )  
OF BURIEN, THE CITY OF FEDERAL )  
WAY, THE CITY OF NORMANDY )  
PARK, THE CITY OF TUKWILA, )  
HIGHLINE SCHOOL DISTRICT )  
NO. 401, AND THE AIRPORT )  
COMMUNITIES COALITION, )

Appellants, )

v. )

THE PUGET SOUND REGIONAL )  
COUNCIL, THE EXECUTIVE BOARD )  
OF THE PUGET SOUND REGIONAL )  
COUNCIL, THE PORT OF SEATTLE, )  
AND THE COMMISSIONERS OF THE )  
PORT OF SEATTLE, )

Respondents. )

THE CITY OF DES MOINES, THE CITY )  
OF BURIEN, THE CITY OF FEDERAL )  
WAY, THE CITY OF NORMANDY )  
PARK, THE CITY OF TUKWILA, )  
HIGHLINE SCHOOL DISTRICT )  
NO. 401, AND THE AIRPORT )

No. 43100-5-I

DIVISION ONE

PUBLISHED OPINION

FILED: **NOV 15 1999**

AR 013075

COMMUNITIES COALITION, )  
 )  
 Appellants, )  
 )  
 v. )  
 )  
 THE PORT OF SEATTLE, AND THE )  
 COMMISSIONERS OF THE PORT OF )  
 SEATTLE, )  
 )  
 Respondents. )  
 )  
 \_\_\_\_\_ )  
 CITY OF DES MOINES, a municipal )  
 corporation, )  
 )  
 Appellant, )  
 )  
 v. )  
 )  
 CENTRAL PUGET SOUND GROWTH )  
 MANAGEMENT HEARINGS BOARD, )  
 an agency of the State of Washington, )  
 and PORT OF SEATTLE, a municipal )  
 corporation, )  
 )  
 Respondents. )  
 )  
 \_\_\_\_\_ )  
 THE AIRPORT COMMUNITIES )  
 COALITION, AND THE CITY OF )  
 BURIEEN, THE CITY OF DES MOINES, )  
 THE CITY OF FEDERAL WAY, THE )  
 CITY OF NORMANDY PARK, THE )  
 CITY OF TUKWILA, AND HIGHLINE )  
 SCHOOL DISTRICT NO. 401, )  
 )  
 Appellants. )  
 )  
 v. )  
 )  
 THE PORT OF SEATTLE, AND GREG )  
 SMITH, THE HEARING EXAMINER )  
 FOR THE PORT OF SEATTLE, )  
 )  
 Respondents. )  
 )  
 \_\_\_\_\_ )

AGID, A.C.J. – This is the second of three actions brought by the cities surrounding the Seattle Tacoma International Airport against the Port of Seattle, the Puget Sound Regional Council, and the City of Sea-Tac—the entities responsible for approving and implementing the Sea-Tac expansion project. All three actions essentially allege “that the GMA [Growth Management Act] requires at least one public entity . . . to ensure that the Sea-Tac expansion project is consistent with the comprehensive plans of neighboring jurisdictions . . . all of which call for the reasonable mitigation of impacts from such a massive project.”

In this appeal, which deals solely with the Port’s obligations under the GMA and the State Environmental Policy Act (SEPA), the Cities contend that the trial court erred by (1) concluding that neither the GMA nor the Department of Community, Trade and Economic Development regulations obligate the Port to comply with local comprehensive plans that violate the GMA, (2) upholding the Central Puget Sound Growth Management Hearing Board’s invalidation of several provisions of the Des Moines county plan based on the conclusion that they preclude the siting of an essential public facility in violation of RCW 36.70A.200(2), and (3) upholding the Port’s and the Federal Aviation Administration’s (FAA) SEPA studies, which assume that the expansion will result in no additional passengers or operations and fail to analyze the environmental impacts of the expansion beyond the year 2010. We affirm the trial court.

#### FACTS

The Port of Seattle is a special district governed by an elected commission and

responsible for major marine and air transportation facilities in the Seattle area. In 1993, the Port initiated a Master Plan Update for Sea-Tac, which analyzed alternative means to improve airfield operating capacity in poor weather conditions, one of which was construction of a third runway. In 1995, the Port and the FAA issued a Draft Environmental Impact Statement (DEIS) as required by SEPA, and after public hearings, consultation with numerous agencies, and additional studies, the Port issued a Final EIS which identified the quantity of fill needed for construction of the runway, the various locations where the fill might be obtained, and all routes that might be used to haul the fill. Based on these studies, the Port Commission passed Resolution 3212, which adopted the Master Plan Update and granted approval to develop a third runway at Sea-Tac. Resolution 3212 also contained "a commitment to mitigate the impacts of the improvements at [Sea-Tac] based on the impacts identified in the Master Plan Update EIS."

After publication of the Final EIS (FEIS), the FAA issued its fiscal year 1996 Terminal Area Forecast (TAF) for the nation's airports. The TAF predicted levels of aircraft operations and passengers at Sea-Tac that exceeded the FEIS predictions. In response, the Port and the FAA revised the Sea-Tac aviation demand forecast, concluding that demand could be 17 percent greater than the FEIS forecast. Consequently, the FAA and the Port prepared a Supplemental EIS. The draft SEIS, released in February 1997, concluded that detailed impacts could not be meaningfully assessed beyond 2010 for a number of reasons. But the SEIS did contain a projection of impacts based on assumed steady growth rates to the year 2020, as well as a higher growth rate scenario. Des Moines, Burien, Federal Way, Normandy Park, and Tukwila

appealed the adequacy of the EIS/SEIS under SEPA to the Port's Hearings Examiner, who determined that the purposes of SEPA were "well-served" by the Port's studies.

In Port Resolution 3245, the Port Commission reaffirmed Resolution 3212 and included a summary of the Commissioners' decision-making process and an updated and expanded list of mitigation measures. On July 3, 1997, the FAA issued a Record of Decision (ROD) approving the Port's Master Plan Update. The ROD was based on the EIS and SEIS and contained an analysis of the project impacts and a list of FAA-required mitigation. The ROD concluded that "all practical means to avoid or minimize environmental harm have been adopted through appropriate mitigation planning." On November 24, 1998, the Ninth Circuit upheld that FAA decision, including the aviation demand forecasting and the decision to analyze detailed impacts only through 2010.

Meanwhile, the Port had filed a petition with the Growth Management Hearings Board in February 1997 challenging the Des Moines comprehensive city plan on the theory that it would preclude expansion of Sea-Tac, an essential public facility, in violation of RCW 36.70A.200(2). The Port also asserted that the Des Moines plan was inconsistent with the regional plan, the King County Comprehensive plan, and the multicounty planning policies. In an April 20, 1998 order, the Board again stated that the entire Des Moines plan violated RCW 36.70A.200:

In addition to finding the Plan, as a whole, out of compliance with the requirements of RCW 36.70A.200, the Board found that two policies, 1-04-05 and 5-04-04, substantially interfered with the fulfillment of the GMA's transportation goal, RCW 36.70A.020(3). . . . These policies were invalidated.

The Board remanded the plan and instructed Des Moines to bring the plan into compliance with RCW 36.70A.200 and achieve internal plan consistency. On remand,



Des Moines amended only the two invalidated policies. At the hearing after remand, the Board determined that the Des Moines plan was still not in compliance with GMA, reinstated its invalidity order, and recommended that the Governor impose sanctions on Des Moines if it did not bring its plan into compliance. The Des Moines City Council then amended 15 policy provisions, and the Board found the plan complied with GMA.

The Cities appealed the Board's and the Examiner's decisions to the King County Superior Court, which determined that neither the GMA nor the Department of Community, Trade and Economic Development regulations require the Port to comply with the Des Moines county plans, upheld the GMA Board's determination that several Des Moines plan policy provisions violated the GMA, and affirmed the Port's Hearings Examiner's conclusion that the Port's SEPA studies were adequate.

#### DISCUSSION

##### 1. The Port's Duty to Comply With Local Plans

The Department of Community, Trade and Economic Development (DCTED), the state agency with the principle responsibility for implementing the GMA, assists counties and cities in preparing comprehensive plans and development regulations<sup>1</sup> and promulgates administrative procedural criteria in the Washington Administrative Code.<sup>2</sup> In WAC 365-195-770(2), DCTED has directed that "[e]xcept where any specific enactment may state the contrary," special districts, such as the Port district, must "comply with the comprehensive plans and development regulations developed under

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<sup>1</sup> See RCW 36.70A.190.

<sup>2</sup> See WAC 365-195.

the [GMA].” The Cities contend that “[c]learly, WAC 365-195-770(2) interprets the GMA as setting forth a legal requirement that port districts comply with local comprehensive plans.”

The trial court noted that DCTED regulations apply by their terms only to cities and counties,<sup>3</sup> and that even if the regulations did apply to the Port, they would “require nothing of it” because they are advisory.<sup>4</sup> The court went on to conclude, however, that:

If plaintiff-petitioners are correct that the [D]CTED regulations provide persuasive authority concerning the application of the GMA to the current conflict . . . [t]he regulations as a whole cannot reasonably be read to support their position that the Port should defer to their comprehensive plan or plans, except in the very limited situation where it is proven that their own plans have been developed in conformity with the GMA. . . . A planning jurisdiction must demonstrate that it has complied with the act, particularly by developing plans in a cooperative fashion and in reasonable conformity to county-wide and RTPO planning.

The court did not determine, as the Cities argue, that “the Port has absolutely no obligation under the GMA to resolve conflicts with local plans.” On the contrary, it concluded that if the cities engage in the cooperative planning process required by the GMA and produce plans which reflect this coordinated approach and do not conflict with the RTP, the Port would have an affirmative obligation to comply with the terms of these plans.<sup>5</sup> The DCTED regulations and the GMA itself support this conclusion.

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<sup>3</sup> RCW 36.70A.040.

<sup>4</sup> WAC 365-195-030 states that “[t]his chapter makes recommendations . . . but compliance with the requirements of the [GMA] can be achieved without using all of the suggestions made here or by adopting other approaches.” But because the GMA itself directed CTED to develop these regulations, they should receive some deference. See Green River Community College Dist. 10 v. Higher Educ. Personnel Bd., 107 Wn.2d 427, 438, 730 P.2d 653 (1986) (“a heightened degree of deference is appropriate where the agency’s construction of a statute is within the agency’s field of expertise”).

<sup>5</sup> At the time of this decision, the court was faced with a Des Moines city plan which actively opposed the runway proposal and would have prevented any proposal which would

WAC 365-195-340(2)(b)(iv) provides that “[w]here essential public facilities may be provided by special districts, . . . cities and counties should adopt provisions for consultation to ensure that such districts exercise their powers in a way that does not conflict with the relevant comprehensive plan.” In addition, the regulations direct that the “process should provide for a cooperative interjurisdictional approach to siting of essential public facilities of a county-wide, regional, or state-wide nature, consistent with county-wide planning policies.”<sup>6</sup> Also, as a proponent of a regional transportation project, the Port is required by RCW 47.80.030(3) to act consistently with the RTP and other regional transportation strategies. As explained in the companion case against the Puget Sound Regional Council, although an RTP may not unilaterally “trump” a city plan, if a conflict between a city plan and an RTP exists after the planning process is completed, the city must revise its plan to comply with the regional plan. After consistency is achieved, the Port will have a duty to comply with both the RTP and the local plans, regardless of whether they require mitigation which the Port finds either difficult or expensive.

## 2. Application of RCW 36.70A.200(2)

The Cities next contend that RCW 36.70A.200(2), which provides that “[n]o local comprehensive plan or development regulation may preclude the siting of essential public facilities,” does not apply to the Sea-Tac expansion. The Cities concede that this provision provides protection from local comprehensive plans that would preclude siting

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have had a “negative impact” on its residents or businesses. The trial court noted that the “policies at issue in the Des Moines Plan did not require mitigation, but instead directed the City to oppose any new facilities at [Sea-Tac] that increased the impacts to the City of Des Moines.”

<sup>6</sup> WAC 365-195-340(2)(b)(ii).

of essential public facilities (EPFs), but they argue that RCW 36.70A.200(2) is inapplicable here because it does not apply to expansions, nor to “remote, off-site ‘necessary support activities,’” and that the Cities’ plan would not have “precluded” the project. Relying on WAC 365-195-340, which directs that “the broadest view should be taken of what constitutes a public facility,” the Board rejected this argument.<sup>7</sup>

Whether RCW 36.70A.200(2) Applies to Improvements or Expansions of EPFs

RCW 36.70A.200(2) states that “[n]o local comprehensive plan or development regulation may preclude the siting of essential public facilities,” and RCW 36.70A.200(1) defines essential public facilities as including “those facilities that are typically difficult to site, such as airports.” The Cities argue that because this provision makes no mention of “expanding” or “improving” EPFs which have already been sited,” neither the Board nor the trial court was authorized to expand the clear terms of the GMA.<sup>8</sup> The Cities also argue that a recent legislative enactment supports its claim that a significant difference exists between construction and expansion. In 1998, seven months after the Board considered this issue, the Legislature enacted House Bill 1487, which added a new section, Section 7, to RCW 47.06 which stated that “[i]mprovements to facilities and services of state-wide significance . . . are essential state public facilities under RCW 36.70A.200.” The Cities claim that this amendment supports their argument that prior to this amendment, improvements to airports were *not* considered EPFs.

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<sup>7</sup> We accord substantial weight to the Board’s findings. See Northwest Steelhead & Salmon Council of Trout Unlimited v. Department of Fisheries, 78 Wn. App. 778, 786-87, 896 P.2d 1292 (1995).

<sup>8</sup> The Cities point out that the Washington Supreme Court has indicated that the GMA does not “contain the requirement that it be liberally construed.” Skagit Surveyors & Engineers v. Friends of Skagit County, 135 Wn.2d 542, 565, 958 P.2d 962 (1998).

There are two problems with this argument. First, because of the political controversy generated by the expansion, the bill's co-sponsor explained that the transportation committee had to agree that the amendment would not deal with airports. Thus, the 1998 amendment specifically excludes improvements to airports from the EPF definition, and this amendment has no bearing on the Sea-Tac expansion. Second, the Cities do not acknowledge the likely possibility that the amendment was a clarification, and not an alteration, of the previous law. As the Washington Supreme Court has noted:

When an amendment clarifies existing law and where that amendment does not contravene previous constructions of the law, the amendment may be deemed curative, remedial and retroactive. This is particularly so where an amendment is enacted during a controversy regarding the meaning of the law.<sup>[9]</sup>

If this amendment is a clarification, as the controversy surrounding the issue may suggest, then the Port has a valid argument that HB 1487 simply explains that the Legislature had always intended that improvements to EPFs should be protected under RCW 36.70A.200. Nevertheless, the trial court correctly reasoned that because of the conflicting conclusions that can be drawn from this amendment, “neither the rule of ‘expression unius est exclusio alterius’ nor the argument that the EPF definition has now been legislatively clarified to include airport improvements” is available to either party.

Deprived of its HB 1487 argument, the Cities are left with a claim that the plain language of RCW 36.70A.200(2) says nothing about “expanding” or “improving” EPFs which have already been sited. But the DCTED regulations, to which the Cities urge

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<sup>9</sup> Tomlinson v. Clarke, 118 Wn.2d 498, 510-11, 825 P.2d 706 (1992) (footnotes omitted).

this court to defer on other points, indicate that in “the identification of essential public facilities, the broadest view should be taken of what constitutes a public facility.”<sup>10</sup>

Accordingly, the Board determined that the third runway was an essential public facility. We defer to the Board’s interpretation of the law and conclude, as the trial court did, that “the requirements of RCW 36.70A.200(2) apply to all essential public facilities (EPFs), whether or not the EPF was in existence prior to the GMA.” This conclusion comports with the fundamental reasoning behind identifying EPFs and giving them special significance under the GMA—the fact that cities are just as likely to oppose the siting of necessary improvements to public facilities as they are the siting of new EPFs.

#### Whether EPFs Include “Necessary Support Activities”

The Cities argue that even if the EPF provision applies to the Sea-Tac expansion, the “critical issue” before this court is “whether the trial court and the Growth Board erred in determining that this provision is so expansive so as to cover remote, off-site “necessary support activities.” The trial court affirmed the Growth Board’s ruling that off-site dirt-hauling activities conducted by the Port within Des Moines are protected under RCW 36.70A.200. The Cities claim that because “support activities” do not appear in the GMA, the Board and the trial court cannot add them. But again, the DCTED regulations urge that an expansive view should be taken of essential public facilities. WAC 365-195-340(2)(a)(i) indicates that identification of EPFs should include “the full range of services” provided both by government and by private entities. In addition, section 340(2)(c) states that no comprehensive plan may “directly or indirectly”

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<sup>10</sup> WAC 365-195-340(2)(a)(i).

preclude the siting of an essential public facility. The legislative purpose of RCW 36.70A.200(2) would be defeated if local governments could prevent the construction or operation of an EPF. Thus, if an activity is indeed "necessary" to an construction of an EPF, a local plan may not stop it from occurring. The Port has convincingly demonstrated that the runway cannot be built without constructing a site that is level with the existing airport, and that this construction will require hauling dirt through the cities surrounding Sea-Tac to the site itself. The Port will undoubtedly be required to mitigate the impacts of this construction on the surrounding communities, but because construction is impossible without these support activities, the Cities cannot stop them from occurring.

#### The Definition of "Preclude"

To determine the precise meaning of the word "preclude" in RCW 36.70A.200, the Board referred to a previous decision which defined it as "render impossible or impracticable." The Board focused on the word "impracticable," because the Legislature would have used the word "prohibit" instead of "preclude" if it had intended to allow the Cities' plans to fall just short of rendering the siting absolutely impossible. Using Merriam Webster's Collegiate Dictionary, the Board defined "impracticable" as "incapable of being performed or accomplished by the means employed or at command." The Board therefore interpreted "preclude" to mean "incapable of being accomplished by the means at the Port's command." The Cities claim that under this "expansive definition," an EPF proponent can "unilaterally control what 'precludes' its project, by claiming that contested comprehensive plan provisions simply would be too

costly or time-consuming to comply with.” This is not a tenable reading of the Board’s decision.

At the time the Board and the trial court considered this issue, the Des Moines plan intended to “oppose” construction of the third runway.<sup>11</sup> Now that the plan has been amended to allow construction, but to require mitigation of its adverse effects, the Cities are correct that the Port will have to comply with the Cities’ reasonable permitting and mitigation requirements. The fact that these requirements may make the expansion more costly does not relieve the Port of these obligations.

### 3. Adequacy of SEPA Analysis

Finally, the Cities contend that the Port’s 1997 SEIS violates SEPA because it is premised on the assumption that the expansion will not increase the number of people or aircraft operations at the airport, and because it fails to analyze the effects of the project after the year 2010. The Port argues that the Cities are collaterally estopped from relitigating this issue because they have already done so in City of Normandy Park v. Port of Seattle,<sup>12</sup> an unpublished 1998 Ninth Circuit decision. In that case, the Cities appealed a FAA decision granting final approval to the Port’s Master Plan development for the Sea-Tac expansion, arguing that it “improperly relied on a ‘no growth’ demand model and a limited prediction forecast thereby failing to accurately assess the project’s environmental impacts and necessary mitigation measures.”<sup>13</sup> The Ninth Circuit

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<sup>11</sup> The trial court indicated that the “record before the Board shows that the City of Des Moines developed and adopted certain comprehensive plan policies and development regulations which would permit it to stop trucks moving fill, and thereby to directly or indirectly prevent [Sea-Tac] expansion.”

<sup>12</sup> No. 97-70953, 1998 WL 833628 (9<sup>th</sup> Cir. Nov. 24, 1998).

<sup>13</sup> Id. at \*5.



analyzed this claim under the federal Airport and Airway Improvement Act (AAIA) and several similar challenges brought against the FAA and concluded that the FAA properly approved the Port's Master Plan.

The collateral estoppel doctrine prevents relitigation of an issue in state court after the party against whom the doctrine is applied has had a full and fair opportunity to litigate his or her case in federal court.<sup>14</sup> But here, the fact that the federal court concluded that the Port's Master Plan satisfied the AAIA has little bearing on the Port's obligations under SEPA because, as the Cities argue, SEPA and the AAIA "have markedly different obligations."<sup>15</sup> The Ninth Circuit analyzed the Cities' claims to determine whether, under the AAIA, "every reasonable step has been taken to minimize the adverse effects"<sup>16</sup> of the expansion and whether the project is consistent with state plans. Although the SEPA inquiry is similar, SEPA requires a more detailed procedural inquiry. The question of the Port's compliance with SEPA therefore requires separate analysis in state court.

SEPA is a procedural statute designed to ensure that local governments consider the environmental and ecological effects of major actions to the fullest extent.<sup>17</sup> SEPA's purpose is to provide decision-makers with all relevant information about the potential

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<sup>14</sup> See Hanson v. City of Snohomish, 121 Wn.2d 552, 573-74, 852 P.2d 295 (1993) (citing Standlee v. Smith, 83 Wn.2d 405, 518 P.2d 721 (1974)).

<sup>15</sup> Substantive differences between two legal schemes do not necessarily preclude application of the collateral estoppel doctrine, Liberty Bank of Seattle, Inc. v. Henderson, 75 Wn. App. 546, 548, 559-60, 878 P.2d 1259 (1994), review denied, 126 Wn.2d 1002 (1995), but when the statutes are sufficiently different that they preclude the full litigation of an issue, applying the doctrine would result in an injustice. See Southcenter Joint Venture v. National Democratic Policy Comm., 113 Wn.2d 413, 418, 780 P.2d 1282 (1989).

<sup>16</sup> Normandy Park, 1998 WL 833628, at \*5 (quoting 49 U.S.C. § 47106(c)(1)(C)).

<sup>17</sup> See RCW 43.21C.030.

environmental consequences of their actions and to provide a basis for a reasoned judgment that balances the benefits of a proposed project against its potential adverse effects. An EIS is not to be a “compendium of every conceivable effect or alternative to a proposed project,”<sup>18</sup> but it must include a ““reasonably thorough discussion of the significant aspects of the probable environmental consequences” of the agency’s decision.”<sup>19</sup>

The Port and the FAA issued their joint Final EIS for the Airport Master Plan Update in February 1996. Later that year, after determining that additional study was necessary based on new forecasts for the nation’s airports conducted by the FAA, they issued a Supplemental EIS in February 1997 and a Final Supplemental EIS in May 1997. The Cities alleged that these studies were inadequate because they assumed that the additional runway would not result in an increase of passengers or airport operations and because they did not evaluate the impacts of the expansion beyond the year 2010. After a five-day hearing before the Hearing Examiner, the Examiner concluded that the “purpose of SEPA was well served with this SEIS.” We conduct a de novo review of the Examiner’s conclusion,<sup>20</sup> qualified by SEPA’s statutory requirement that agency determinations of EIS adequacy are entitled to substantial weight.<sup>21</sup> The adequacy of an EIS is assessed under the “rule of reason,”<sup>22</sup> which requires a

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<sup>18</sup> Toandos Peninsula Ass’n v. Jefferson County, 32 Wn. App. 473, 483, 648 P.2d 448 (1982).

<sup>19</sup> OPAL v. Adams County, 128 Wn.2d 869, 875, 913 P.2d 793 (1996) (quoting Weyerhaeuser v. Pierce County, 124 Wn.2d 26, 38, 873 P.2d 498 (1994)).

<sup>20</sup> Klickitat County Citizens Against Imported Waste v. Klickitat County, 122 Wn.2d 619, 632-33, 860 P.2d 390, 866 P.2d 1256 (1993).

<sup>21</sup> RCW 43.21C.090; OPAL, 128 Wn.2d at 875.

<sup>22</sup> Klickitat, 122 Wn.2d at 633.

“reasonably thorough discussion of the significant aspects of the probable environmental consequences’ of the agency’s decision.”<sup>23</sup>

“No Growth” Assumption

The Final EIS concluded that regardless of whether the Port took “no action” or whether it constructed the airport expansion, the same number of passengers would use the airport. This forecast was prepared by Stephen Allison, a Senior Aviation Planner for P&D Aviation, the company that prepared the Flight Plan EIS issued by the Port and the PSRC in 1992. Allison has 30 years of experience in the aviation planning and consulting field and has served as project planner or lead aviation planner on the development of over 30 airport master plans and regional aviation system plans. Preparing forecasts of aviation activity for individual airports and multiple-airport regions is his specialty.

At the hearing, Allison explained that when he prepares a forecast, he develops a detailed mathematical model that assesses the relationship between airport activity and the factors that have been shown to strongly affect it, and then evaluates this model to ensure that it accurately forecasts aviation demand and passes statistical tests. He also considers a wide variety of other factors, including input from the aviation community, the local and national economies, airfares, telecommunications, and aviation demand in the region. He then compares the master plan forecast with forecasts prepared in other studies and by the FAA and evaluates differences in the purpose of the forecast, the forecast approach, and assumptions.

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<sup>23</sup> Id. (quoting Cheney v. City of Mountlake Terrace, 87 Wn.2d 338, 344-45, 552 P.2d 184 (1976)).

In this case, Allison determined that three factors at Sea-Tac have the greatest predictive value for estimating future aviation demand: population of the service area, personal income in that area, and average airfares. The models he developed were tested against historical activity at Sea-Tac with a 99 percent correlation and accepted by the FAA for use in preparation of the EIS/SEIS. The forecasts were also reviewed by Landrum & Brown, the consultant selected by the Port and the FAA to prepare the EIS and SEIS. Other expert testimony at the hearing indicated that Allison's methodology has been used at most of the country's major airports.

The Cities presented the testimony of Dr. Clifford Winston, a Senior Fellow at the Brookings Institution, who stated that expanded airport facilities would cause a growth in demand for air travel. The Port's experts responded that aviation demand is not caused by expanded facilities as long as there is sufficient airport capacity to serve the passengers who wish to fly.

The Examiner found the testimony of the Port's experts credible and concluded that the "Port and the FAA used a forecasting methodology for the SEIS that was consistent with industry-accepted standards and was proven reliable over time. . . . The decision to measure aviation demand by the aviation forecast methodology chosen is legally adequate under the rule of reason." In addition, the Examiner noted that the difference of opinion between the Cities' expert witness and the Port's witnesses was discussed in the EIS, which "allowed the decision-makers to be informed on this issue prior to making their decisions."<sup>24</sup> We agree. Although the conclusion that an

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<sup>24</sup> The Final SEIS included an appendix that analyzed environmental impacts if increased airport capacity did indeed result in higher aviation activity.

expansion at Sea-Tac will not create growth initially appears counterintuitive, the purpose of the expansion is not to increase capacity; it is to decrease delays in poor weather. As such, it is entirely plausible that this expansion will simply improve efficiency, not promote growth.

The Cities cite several federal cases in support of their argument that the Sea-Tac expansion will cause additional aviation demand. In those cases, however, the courts reasonably held that new freeway exchanges and bridges would spur development and increase growth in the area, which would result in increased traffic on the highways themselves. This does not necessarily hold true for Sea-Tac. Although Sea-Tac will become more efficient when it constructs an extra runway to decrease delays in poor weather, it does not necessarily follow that more people from this region will decide to fly, or that people from other areas will be attracted to Sea-Tac for that reason. As the Eighth Circuit concluded when considering the impacts of an Atlanta airport runway extension, although an increase in capacity would undoubtedly occur given the projected growth of the region, "[t]his increased growth . . . is not attributable to an extended runway. The effect caused by the runway extension will be a higher percentage of safe landings, not a higher number of planes landing."<sup>25</sup> This reasoning applies here.<sup>26</sup>

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<sup>25</sup> C.A.R.E. Now, Inc. v. Federal Aviation Admin., 844 F.2d 1569, 1575 (11<sup>th</sup> Cir. 1988).

<sup>26</sup> The only airport case the Cities cite involves a multiple-airport system in Washington D.C. See Citizens for Abatement of Aircraft Noise, Inc. v. Metropolitan Washington Airports Auth., 718 F. Supp. 974 (D.D.C. 1989) (subsequent history omitted). As the Port points out, passengers in that region have an option, so new gates and terminal expansions may indeed lure passengers away from neighboring airports and increase growth.

The Port and the FAA are agencies with expertise in forecasting aviation demand and should receive deference in choosing the appropriate methodology for forecasting aviation activity.<sup>27</sup> When an agency is presented with conflicting expert opinion on an issue, it is the agency's job, and not the job of the reviewing appellate body, to resolve those differences.<sup>28</sup> We commend the Examiner on his thorough analysis of this issue and defer to his finding that the Port's "no growth" presumption was a reasonable forecast.

#### Decision to Limit Analysis of Future Impacts to 2010

The Port explained to the Examiner that at the time the Master Plan Update EIS was prepared in 1994, airfares at Sea-Tac were relatively stable. Thus, the 1996 EIS analyzed effects of the proposal through 2020. But shortly thereafter several factors combined to add "significant uncertainty to the planning efforts of those professionals charged with attempting to meaningfully evaluate long-term impacts under SEPA and NEPA." Some of these factors included a drop in nationwide airfares, Boeing's decision to discontinue production of the MD-80 aircraft, the arrival of Southwest Airlines, one of the nation's lowest airfare airlines, and "investments in noise and air pollution research which are likely to significantly reduce engine noise in new aircraft . . . starting in the year 2005." In light of these events, the EIS consultants agreed with the project manager that they could not "reasonably forecast" the impacts of the runway project

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<sup>27</sup> Seattle Community Council Fed'n v. Federal Aviation Admin., 961 F.2d 829, 833-34 (9<sup>th</sup> Cir. 1992).

<sup>28</sup> Webb v. Gorsuch, 699 F.2d 157, 160 (4<sup>th</sup> Cir. 1983). Washington courts have followed federal NEPA cases when construing SEPA. Eastlake Community Council v. Roanoke Assocs., Inc., 82 Wn.2d 475, 488 n.5, 513 P.2d 36, 76 A.L.R.3d 360 (1973).

beyond the year 2010.<sup>29</sup> The Cities point out that because the runway will not be completed until 2004 or 2005, the Port has evaluated its actual impacts for only five years. The Examiner disagreed with the Cities' views, concluding that "a more proper context is to review the length of the planning period from the date of the EIS in 1996, rather than the year 2004." Thus, the Examiner viewed the Port's planning period as ranging over 13 years.

WAC 197-11-060(4) explains that "SEPA's procedural provisions require the consideration of 'environmental' impacts . . . , with attention to impacts that are likely, not merely speculative." This subsection further directs that "[a]gencies shall carefully consider the range of probable impacts, including short-term and long-term effects. Impacts shall include those that are likely to arise or exist over the lifetime of a proposal or, depending on the particular proposal, longer." "Probable" is defined in a later section as "likely or reasonably likely to occur, as in 'a reasonable probability of more than a moderate effect on the quality of the environment' . . . . Probable is used to distinguish likely impacts from those that merely have a possibility of occurring, but are remote or speculative."<sup>30</sup>

Mary Vigilante, the EIS Project Manager, testified that because there were rapid changes in aviation activity during the mid-1980's at Sea-Tac, and because quantification of environmental impacts depends on total aviation activity, aircraft types and engines, and the timing of flights, detailed analysis of the years beyond 2010 in the

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<sup>29</sup> The Port did include an appendix, however, that contained "an extrapolated estimate of possible impacts in the year 2020 in order to provide decision-makers with the analysis of possible impacts through the year 2020 prior to their taking action."

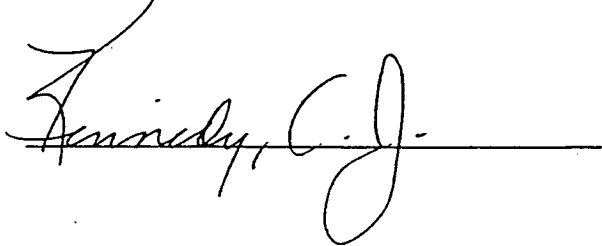
<sup>30</sup> WAC 197-11-782.

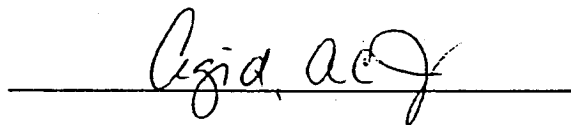
EIS would be speculative and could lead to a substantially inaccurate evaluation of environmental effects. The Examiner found her testimony credible. Gene Peters, a director with Landrum & Brown, similarly testified that the volatility in airfares, forecasts, fleet mix, and other areas in the period following 1994 made it difficult in 1996 to predict with substantial accuracy impacts beyond the year 2010. As for noise impacts, the experts testified that although it was theoretically possible to run noise contours, the reliability of the models diminishes as the length of time is expanded. The Cities did not rebut this testimony.

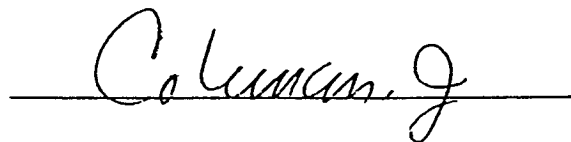
The Examiner's determination that this analysis satisfied SEPA's procedural requirements is supported by ample evidence in the record. The fact that the Port included an appendix that estimated the effects of the expansion through the year 2020 based on extrapolated data establishes that the Port did what it reasonably could to provide the decision-makers with reliable information about the potential environmental consequences of their actions. Anything more would have been too speculative, and thus the EIS was adequate under SEPA.

Affirmed.

WE CONCUR:

A handwritten signature in cursive script, appearing to read "Kennedy, C.J.", written over a horizontal line.

A handwritten signature in cursive script, appearing to read "Azia", written over a horizontal line.

A handwritten signature in cursive script, appearing to read "Coleman", written over a horizontal line.



IN THE COURT OF APPEALS OF THE STATE OF WASHINGTON

THE CITY OF DES MOINES, THE CITY )  
OF BURIEN, THE CITY OF FEDERAL )  
WAY, THE CITY OF NORMANDY )  
PARK, THE CITY OF TUKWILA, )  
HIGHLINE SCHOOL DISTRICT )  
NO. 401, AND THE AIRPORT )  
COMMUNITIES COALITION, )

Appellants, )

v. )

THE PUGET SOUND REGIONAL )  
COUNCIL, THE EXECUTIVE BOARD )  
OF THE PUGET SOUND REGIONAL )  
COUNCIL, THE PORT OF SEATTLE, )  
AND THE COMMISSIONERS OF THE )  
PORT OF SEATTLE, )

Respondents. )

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THE CITY OF DES MOINES, THE CITY )  
OF BURIEN, THE CITY OF FEDERAL )  
WAY, THE CITY OF NORMANDY )  
PARK, THE CITY OF TUKWILA, )  
HIGHLINE SCHOOL DISTRICT )  
NO. 401, AND THE AIRPORT )  
COMMUNITIES COALITION, )

Appellants, )

v. )

THE PORT OF SEATTLE, AND THE )  
COMMISSIONERS OF THE PORT OF )  
SEATTLE, )

Respondents. )

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No. 43100-5-I

DIVISION ONE

ORDER GRANTING MOTION  
FOR RECONSIDERATION IN PART  
AND AMENDING OPINION

CITY OF DES MOINES, a municipal )  
corporation, )

Appellant, )

v. )

CENTRAL PUGET SOUND GROWTH )  
MANAGEMENT HEARINGS BOARD, )  
an agency of the State of Washington, )  
and PORT OF SEATTLE, a municipal )  
corporation, )

Respondents. )

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THE AIRPORT COMMUNITIES )  
COALITION, AND THE CITY OF )  
BURIEN, THE CITY OF DES MOINES, )  
THE CITY OF FEDERAL WAY, THE )  
CITY OF NORMANDY PARK, THE )  
CITY OF TUKWILA, AND HIGHLINE )  
SCHOOL DISTRICT NO. 401, )

Appellants. )

v. )

THE PORT OF SEATTLE, AND GREG )  
SMITH, THE HEARING EXAMINER )  
FOR THE PORT OF SEATTLE, )

Respondents. )

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Respondent, Port of Seattle, having filed a motion for reconsideration of the opinion filed November 15, 1999, and the court having determined that said motion should be granted in part; Now, therefore, it is hereby

ORDERED that the motion for reconsideration is granted in part as follows:

DELETE the first sentence in the second paragraph on page 3 which reads:

In this appeal, which deals solely with the Port's obligations under the GMA and the State Environmental Policy Act (SEPA), the Cities contend that the trial court erred by (1) concluding that neither the GMA nor the Department of Community, Trade and Economic Development regulations obligate the Port to comply with local comprehensive plans that violate the GMA, (2) upholding the Central Puget Sound Growth Management Hearing Board's invalidation of several provisions of the Des Moines county plan based on the conclusion that they preclude the siting of an essential public facility in violation of RCW 36.70A.200(2), and (3) upholding the Port's and the Federal Aviation Administration's (FAA) SEPA studies, which assume that the expansion will result in no additional passengers or operations and fail to analyze the environmental impacts of the expansion beyond the year 2010.

REPLACE that sentence with the following:

In this appeal, which deals solely with the Port's obligations under the GMA and the State Environmental Policy Act (SEPA), the Cities contend that the trial court erred by (1) concluding that neither the GMA nor the Department of Community, Trade and Economic Development regulations require the Port Resolutions to comply with local comprehensive plans, regardless of whether they violate the GMA, (2) upholding the Central Puget Sound Growth Management Hearing Board's invalidation of several provisions of the Des Moines city plan based on the conclusion that they preclude the siting of an essential public facility in violation of RCW 36.70A.200(2), and (3) upholding the Port's and the Federal Aviation Administration's (FAA) SEPA studies, which assume that the expansion will result in no additional passengers or operations and fail to analyze the environmental impacts of the expansion beyond the year 2010.

REPLACE the word "county" with "city" in the fourth line of the first full paragraph on page 6. The sentence should read as follows:

The Cities appealed the Board's and the Examiner's decisions to the King County Superior Court, which determined that neither the GMA nor the Department of Community, Trade and Economic Development regulations require the Port to comply with the Des Moines city plans, upheld the GMA Board's determination that several Des Moines plan policy provisions violated the

GMA, and affirmed the Port's Hearings Examiner's conclusion that the Port's SEPA studies were adequate.

DELETE the second sentence from the end of the first full paragraph on page 7

which reads as follows:

On the contrary, it concluded that if the cities engage in the cooperative planning process required by the GMA and produce plans which reflect this coordinated approach and do not conflict with the RTP, the Port would have an affirmative obligation to comply with the terms of these plans.<sup>5</sup>

REPLACE that sentence with the following sentence:

On the contrary, it concluded that if the cities engage in the cooperative planning process required by the GMA and produce plans which reflect this coordinated approach and do not conflict with the RTP, the Port should, according to the DCTED regulations, have an affirmative obligation to comply with the terms of these plans.<sup>5</sup>

ADD the following footnote immediately after the word "expensive" at the end of the first paragraph on page 8:

As urged by the Port in its motion for reconsideration/clarification, we clarify that these duties are limited to Port proposals for specific projects within local jurisdictions in accordance with state and federal law.

DATED this 23<sup>rd</sup> day of February 2000.

Columan, J

Azid, ACJ

Kennedy, C.J.

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COURT OF APPEALS  
STATE OF OREGON  
2000 FEB 23 PM 1:19

AR 013099

**E**

**AR 013100**

U. S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
NORTHWEST MOUNTAIN REGION

RECORD OF DECISION  
FOR THE  
MASTER PLAN UPDATE DEVELOPMENT ACTIONS  
SEA-TAC INTERNATIONAL AIRPORT

JULY 3, 1997

AR 013101

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## I. INTRODUCTION

This Record of Decision (ROD) provides final Federal Aviation Administration (FAA) approval for the Master Plan Update development actions adopted by the Port of Seattle (POS) on August 1, 1996, in POS Commission Resolution # 3212, as amended on May 27, 1997, in POS Commission Resolution No. 3245.

This ROD provides final approval for those agency actions necessary in order to provide FAA support for a new 8500-foot dependent air carrier runway, for a 600 foot southerly extension of runway 16L/34R, for expanded runway safety areas for runways 16R and 16L, and for various landside Master Plan Update improvements scheduled to be completed through the year 2010. The phasing of these various projects is graphically presented on pages 2-22 to 2-23 of the Final Supplemental Environmental Impact Statement [FSEIS], and is also presented in Appendix A of this ROD.

## II. BACKGROUND

Over the past decade, the Federal Aviation Administration (FAA) has worked closely with local and regional officials and with the Port of Seattle (POS) aviation planning staff to investigate ways in which to accommodate the increasing passenger and operational activity demands at Seattle-Tacoma International Airport (Sea-Tac). As documented in Chapter I of the Final Environmental Impact Statement (FEIS) and in Chapter 2 of the FSEIS, the present airport runway configuration, with two closely-spaced runways, is currently responsible for significant airside delays, particularly during poor weather conditions, and is forecast to be responsible for increasing such delays in the future. Furthermore, the present design and configuration of airport landside facilities cannot adequately accommodate projected increases in activity without severe landside congestion.

On the regional level, the FAA has worked for a number of years with the local metropolitan planning organization [currently entitled the Puget Sound Regional Council (PSRC)], and with other local planning agencies, to find solutions to the related problems of inadequate capacity and increasing delays which are forecast for Sea-Tac. The FAA participated in the 1989-1992 Flight Plan Study, which recommended a multiple airport system that included a new runway at Sea-Tac. The agency also funded a PSRC study of the feasibility of a major supplemental airport, which concluded on October 27, 1994, with PSRC Resolution # EB-94-01, determining that there were no feasible sites for such a airport, and deciding not to proceed with further such studies on



a regional level (See FEIS Appendix B for detailed information on regional alternatives).

On January 5, 1994, the FAA began the public phase of the environmental process involving POS site-specific development proposals, which included a third Sea-Tac runway, by announcing in the Federal Register its intent to prepare an Environmental Impact Statement (EIS), and by requesting scoping comments (59 Fed. Reg. 645). Scoping meetings were held with the general public and with Federal, State and local agencies on February 9 and 10, 1994 (See FEIS Appendix A for detailed information on this scoping process).

During this same time frame, the POS began its Master Plan Update study, designed to develop recommendations for improvements to Sea-Tac which would reduce existing and forecasted poor weather aircraft operating delay and would accommodate forecasted growth in passengers, cargo, and aircraft operations. The Master Plan Update study process occurred concurrently with the initial environmental studies discussing the impacts of the development actions being proposed.

On April 24, 1995, the FAA published in the Federal Register a Notice of Availability of the Draft Environmental Impact Statement (DEIS) [60 Fed. Reg. 20149]. Public comments were taken on the DEIS from the date of its release until August 3, 1995. During the comment period, two public hearings were held, on June 1, 1995 and June 14, 1995. Final Environmental Impact Statement (FEIS) Appendix T, located in Volumes 5, 6, and 7, contains the transcript from the public hearings, and letters commenting on the DEIS which were received from the public and government agencies. FEIS Volume 4, Appendix R contains responses to the issues presented during the comment period.

The FEIS, approved by the FAA on February 1, 1996, was released to the public on February 9, 1996 (see 61 Fed. Reg. 5056). The FEIS addressed areas of public concern by way of modifications to the DEIS text and specific responses to public comments.

The U.S. Environmental Protection Agency (EPA) published a notice of the availability of the approved FEIS, pursuant to 40 CFR 1506.10 (61 Fed. Reg. 6243) in the Federal Register on February 16, 1996.

Although the FAA did not solicit public comments on the FEIS (on issues other than air quality conformity), several public agencies, community groups, and citizens nevertheless submitted written comments for agency consideration on the FEIS. Appendix A of the Final Supplemental Environmental Impact Statement

(FSEIS) responds to substantive agency and public comments on the FEIS, other than those pertaining to air quality conformity.

On July 11, 1996, in Resolution A-96-02, the PSRC General Assembly approved an amendment to the Metropolitan Transportation Plan to include a third runway at Sea-Tac Airport, with specific noise reduction measures based upon the recommendations of an expert Panel.

On August 1, 1996, the Commissioners of the Port of Seattle met to discuss the Master Plan Update proposals discussed in the FEIS. During the course of that meeting, by approving Resolution No. 3212, they adopted and approved a preferred development alternative, and authorized implementation of the first phase of those development actions. To date, due to the superseding events discussed below, no such implementation activity has taken place.

In May of 1996 the FAA Northwest Mountain region became aware of the fiscal year 1996 Terminal Area Forecast (TAF) prepared by the FAA headquarters Office of Policy and Plans. The TAF suggested that the air travel demand forecasts used in the Master Plan Update may have significantly understated the actual demand currently being experienced at Sea-Tac Airport and likely to be experienced at the airport in the foreseeable future. Over the next six months, a more detailed reexamination of those national forecasts, with more focus upon local conditions, was undertaken by the FAA and the Port of Seattle, together with their consultants. In December 1996, the FAA decided that a Supplemental EIS (SEIS) was necessary in order to reexamine, with public participation, how this anticipated growth might affect the conclusions reached in the February 1996 FEIS.

By Federal Register notice dated December 27, 1996 [61 Fed. Reg. 68327], the FAA published a Notice of Intent to prepare this SEIS. On February 4, 1997, the FAA and the POS released a Draft SEIS to the public. A public notice of availability of the Draft SEIS was published in local newspapers on February 9, 1997, in the Federal Register on February 13, 1997 [62 Fed. Reg. 6831] and by the Environmental Protection Agency [EPA] on February 14, 1997 [62 Fed. Reg. 6969]. A public hearing was held at the Sea-Tac International Airport on March 4, 1997, during which oral comments were taken from approximately 26 members of the public. By the March 31, 1997, close of the public comment period, 85 written public comments on the DSEIS had been received [reprinted at Final SEIS Appendix G]. All substantive oral and written public comments [including those pertaining to air quality conformity] are responded to in Appendix F of the FSEIS.

On May 13, 1997, the FAA signed and released the FSEIS to the public. A public notice of availability of the FEIS was published in local newspapers on May 19, 1997, in the Federal Register on May 21, 1997 [62 Fed. Reg. 27831] and by the Environmental Protection Agency [EPA] on May 23, 1997 [62 Fed. Reg. 28469]. Although not solicited, further public comments (not pertaining to air quality) were received on the FSEIS, which are responded to in Appendix D of this ROD. Public Comments on the FSEIS Air Quality analysis are responded to in Appendix E of this ROD.

On May 27, 1997, the Commissioners of the Port of Seattle met to discuss the Master Plan Update proposals discussed in the FSEIS. During the course of that meeting, by approving Resolution No. 3245, they again adopted and approved a preferred development alternative [as outlined in Appendix A of this ROD], and authorized immediate implementation of the first phase of those development actions.

### **III. THE PROPOSED AGENCY ACTIONS AND APPROVALS**

FEIS page II-42 outlines a variety of actions that will require Federal approval prior to undertaking the proposed development actions. The majority of these actions will require FAA approval. However, the U.S. Army Corps of Engineers, a cooperating agency for the FEIS, will be responsible for permitting processes under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. The necessary FAA actions, determinations and approvals are summarized below.

a. Determination of project eligibility for Federal grant-in-aid funds (49 U.S.C. § 47101, et. Seq.) and Passenger Facility Charge [PFC] funds (49 U.S.C. § 40117), for land acquisition and relocation (49 CFR Part 24), site preparation, runway, taxiway, runway safety area, and other airfield construction, terminal and related landside development, navigational and landing aids, and environmental mitigation.

b. Conclusions regarding air quality conformance of the proposed facility with applicable air quality standards under the Clean Air Act, as amended. (42 U.S.C. § 7506, Section 176(c)(1)), and 40 CFR Part 93).

c. Approval for relocation/upgrade of the existing airport traffic control tower and various navigational aids (49 U.S.C. § 44502(a)(1)).

d. Decisions to develop air traffic control and airspace management procedures to effect the safe and efficient movement of air traffic to and from the proposed new runway, including the

development of a system for the routing of arriving and departing traffic and the design, establishment, and publication of standardized flight operating procedures, including instrument approach procedures and standard instrument departure procedures (49 U.S.C. § 40103(b)).

e. Determinations, through the aeronautical study process, under 14 CFR Part 77, regarding obstructions to navigable airspace (49 U.S.C. § 40103(b) and 40113).

f. Determinations under 14 CFR Part 157 as to whether or not the agency objects to the airport development proposal from an airspace perspective, based upon aeronautical studies (49 U.S.C. § 40113(a)).

g. Determinations under the 49 U.S.C. Sections 47106 and 47107 pertaining to FAA funding of airport development [including approval of a revised airport layout plan (ALP), 49 U.S.C. § 47107(a)(16)], Environmental approval (see 42 U.S.C. §§ 4321-4347, and 40 CFR § 1500-1508), and approvals under various executive orders discussed in the ROD.

h. A certification that the proposed facility is reasonably necessary for use in air commerce or for the national defense (see 49 U.S.C. § 44502(b)).

#### **IV. ALTERNATIVES ANALYSIS**

The Master Plan Update Study process identified four broad development needs at Sea-Tac, which formed the basis for the site-specific EIS. These four needs, discussed in detail in FEIS Chapter I and in FSEIS Chapter 2, are summarized as follows:

(1) Improve the poor weather airfield operating capability in a manner that accommodates aircraft activity with an acceptable level of aircraft delay;

(2) Provide sufficient runway length to accommodate warm weather operations without restricting passenger load factors or payloads for aircraft types operating to the Pacific Rim;

(3) Provide Runway Safety Areas (RSA's) that meet current FAA standards; and

(4) Provide efficient and flexible landside facilities to accommodate future aviation demand.

FEIS Chapter II and FSEIS Chapter 3 discuss in detail the alternatives considered by the FAA and the POS during the EIS study process for each of these four identified needs. For each need, the no action alternative was also considered. A summary of the FAA's consideration of alternatives for each of these needs is set forth below:

(1) Improve the poor weather airfield operating capability in a manner that accommodates aircraft activity with an acceptable level of aircraft delay;

The Puget Sound region of Western Washington is renowned for its poor weather, characterized by frequent precipitation, clouds and fog. Under FAA aircraft separation criteria, the two existing Sea-Tac runways are too close together to permit simultaneous approaches to both runways during much of this poor weather. Under these weather conditions, therefore, there is but one usable approach path for aircraft landing at Sea-Tac. A one runway airport operates much differently from a multiple runway airport in terms of its ability to accommodate aircraft landings during periods of heavy air traffic demand. The FEIS and FSEIS document the current and forecasted aircraft delays resulting from the inadequate spacing of the two existing Sea-Tac runways, and the resulting single approach stream of air traffic during poor weather.

As noted at the beginning of this ROD, the FAA has participated for many years in regional attempts to find a solution to the Sea-Tac delay problem through the development of a replacement or supplemental airport or airports, or the expanded use of existing airports, in the Puget Sound region, in order to reduce the aircraft demand existing at and forecast for Sea-Tac (see FEIS Appendix B). However, for the reasons documented in the EIS and SEIS, the FAA has concluded that these regional solutions are currently not reasonable alternatives to meet the defined need. Likewise, the FAA has considered the reduction and management of demand at Sea-Tac through the use of other modes of transportation, demand and system management alternatives, and the use of additional air traffic and flight technology alternatives, and concluded that these alternatives would not meet the defined need.

As discussed at FEIS I-13 and at FSEIS 3-5 to 3-6, the FAA and the POS have in recent years made a number of procedural and technological improvements at Sea-Tac, which have increased the efficiency of the air traffic flow. However, we have now exhausted all known available and reasonable improvements of this nature. Additional technological and procedural alternatives which have been suggested are not reasonable solutions to the defined need, for the reasons explained at FEIS II-14 through II-

18, and in response to public comments in FEIS Appendix R and in FSEIS Appendix F.

Finally, the FAA has considered the use of delayed or blended alternatives as a means to avoid the immediate construction of a new runway at Sea-Tac. For the reasons discussed in FSEIS pages 3-6 to 3-7, the FAA and the POS have decided that limitations on financial resources, and a refined consideration of the construction process, require extending the runway construction period and delaying the commissioning of the runway until late in the year 2004. It is recognized that this delay will cause significant inconvenience to the traveling public and additional costs to airport users. However, the phasing plan outlined at FSEIS pages 2-22 to 2-23 represents a compromise which balances construction-related financial constraints with the costs associated with rapidly increasing airside delays.

As part of the POS Master Plan Update, an extensive evaluation was undertaken, summarized at FEIS pages II-12-14, to identify the appropriate alignment, spacing and length for a proposed third runway. The FAA worked closely with the POS to develop the assumptions and methodologies during this portion of the alternatives evaluation, which relied upon FAA design standards and the results of recent FAA Capacity Enhancement Plan updates. The FAA believes that this evaluation process was appropriately conducted, and therefore does not consider it necessary, in its independent Federal consideration of alternatives, to undertake a de novo comprehensive alternatives analysis of alignment, spacing, and length issues. The Port of Seattle, as the sponsor and airport operator, has the fundamental role of planning and developing aviation facilities at Sea-Tac.

Considered further in FEIS Chapter IV and in FSEIS Chapter 5, were the reasonably foreseeable environmental consequences of the Do-Nothing/No-Build alternative and the site-specific runway development alternatives. These evaluations concluded that the proposed third runway project would not result in any significant environmental impacts which could not be adequately mitigated [see ROD Section VI and Appendix F for summaries of mitigation].

The Port's decisions, at its August 1, 1996, and May 27, 1997, Commission meetings, to proceed with a third parallel runway spaced at 2500 feet from runway 34R/16L, and 8500 feet in length, are well supported by airspace, engineering, environmental, and financial considerations, as documented in the Master Plan Update and in the FEIS and FSEIS.

Under the Do-Nothing/No-Build alternative, a third runway at Sea-Tac would not be developed now or in the near future. However, Federal adoption of this alternative would fail to alleviate the

current and forecast airside delays at Sea-Tac which are documented in the FEIS and FSEIS. Although the FEIS and FSEIS find that, with appropriate mitigation, the POS preferred alternative will have no significant environmental impacts, the Do-Nothing/No-Build Alternative would still be the least environmentally impacting alternative, and thus the Do-Nothing/No-Build alternative is environmentally preferable. However, since it would fail to accomplish the principal purpose and need for the project, this alternative is not supported by the FAA.

In its consideration of alternatives, the FAA has been mindful of its statutory charter to encourage the development of civil aeronautics and safety of air commerce in the United States (49 U.S.C. 40104). We have also considered the congressional policy declaration that airport construction and improvement projects that increase the capacity of facilities to accommodate passenger and cargo traffic be undertaken to the maximum feasible extent so that safety and efficiency increase and delays decrease (49 U.S.C. 47101(a)(7)).

As a further policy consideration, the construction and operation of the proposed third Sea-Tac runway will alleviate delays and congestion at Sea-Tac International Airport, as extensively documented in the administrative record for this ROD. Although the \$587 million cost for property acquisition, runway construction, and environmental mitigation (as specified in the SEIS) is significant by any standard, the annual delay savings from an 8500 foot new runway are expected to be approximately \$438 million by the year 2005, and \$646 million by the year 2010. ROD Appendix G presents a recent Benefit-Cost Analysis for the third runway project, prepared by the agency's System and Policy Analysis Division at FAA headquarters. That analysis reflects that the total benefit of the proposed runway exceeds the total project cost by a factor of approximately 5, based upon a comparison of present values of benefits and costs. Based upon the Appendix G figures, discounted to present value, it is evident that if the third runway becomes operational by the year 2005, the delay savings will compensate for the runway costs within a two year period.

Although the benefit/cost analysis reflects savings from both airline operation and passenger delays, there are other more qualitative considerations. The FAA and the POS seek to relieve passenger and public inconvenience, and to make travel to and from this region more attractive by reducing travel delay and uncertainty. The FAA therefore concludes that the third runway project is both cost effective, and otherwise worthy of Federal support through the approvals in this ROD.

This support and these approvals do not, however, suggest that an FAA commitment to provide a specific level of financial support for the new runway project has yet been made. Future FAA discretionary funding decisions will be based upon the statutory criteria set forth in 49 U.S.C. § 47115(d), and upon the FAA policy announced in the Federal Register on June 24, 1997 (62 Fed. Reg. 34108), or under subsequent revisions to that agency policy.

After careful consideration of the analysis of the impacts of the various alternatives considered, and of the ability of these alternatives to satisfy the identified purpose and need for this proposal; and after review and consideration of the testimony at the various public hearings, of the comments submitted in response to the circulation of the DEIS, FEIS, DSEIS and FSEIS and of coordination with Federal, state and local agencies; and after considering the policy matters discussed above; the FAA hereby selects the runway alternative adopted and approved for construction by the POS on August 1, 1996, and on May 27, 1997, as the FAA's preferred runway alternative.

(2) Provide sufficient runway length to accommodate warm weather operations without restricting passenger load factors or payloads for aircraft types operating to the Pacific Rim.

The FEIS documents the inability of existing Sea-Tac runways (at 9,425 and 11,900 feet) to service unrestricted warm weather non-stop operations to Pacific Rim destinations. The inability of Sea-Tac to accommodate unrestricted operations to these destinations is expected to result in ever-increasing airline economic losses throughout the planning period (estimated at \$1.2 million in the year 2000 and \$2 million by the year 2010).

The Master Plan Update determined that a 12,500 foot runway is the minimum length necessary to permit unrestricted B747-200B operations at 76°F. Although consideration was given to meeting this need by extending runway 16R/34L to a length of 12,500 feet, this alternative was rejected as unreasonable due to impacts on wetlands and the expense of roadway relocations, as discussed in the FEIS. Consideration was also given to development of a new third runway with a 12,500 foot length, but this alternative was also rejected due to the extensive disruption of existing development and the expense associated with roadway relocation, as discussed in the FEIS. The FEIS identifies a 600 foot southward extension of Runway 16L/34R as being the most cost effective and least environmentally damaging development alternative. The net cost of this runway extension is estimated at \$12,700,000.



With regard to the Delayed/Blended alternatives, although these were considered at FEIS page II-21, they were dismissed from further study and not chosen as the preferred alternative. Although the POS had not earlier identified a preferred development date for this aspect of the Master Plan Update (see FEIS footnote #19, page II-44), the Final SEIS [at page 2-22] states an intent to proceed with this development aspect of the Master Plan Update in the year 2010, when it is anticipated that this development project will become cost-effective (payback period estimated at 11.1 years in year 2000 but reduced to 6.5 years by the year 2010). In order to maintain the integrity of the FEIS environmental process, which requires the consideration of connected, cumulative and similar actions in one document, the FEIS and FSEIS evaluated this runway extension project during this EIS process. Under FAA Order 5050.4A paragraph 102.b., a written environmental reevaluation of this project will likely be required prior to the commencement of construction.

Under the Do-Nothing/No-Build alternative, a runway extension at Sea-Tac would not be developed now or in the foreseeable future. Although the FEIS and FSEIS find that, with appropriate mitigation, the POS preferred alternative will have no significant environmental impacts, the Do-Nothing/No-Build Alternative would still be the least environmentally impacting alternative, and thus the Do-Nothing/No-Build alternative is environmentally preferable. However, since it would fail to accomplish the principal purpose and need for the project, this alternative is not supported by the FAA.

Having considered the policies set forth at 49 U.S.C. sections 40104 and 47101, the ability of the available alternatives to meet the articulated need, and the administrative record which concerns the proposed runway extension, the FAA hereby selects as its preferred alternative the runway extension alternative identified in the FEIS as the POS planning staff's preferred alternative, as adopted by the POS as part of its Master Plan Update and ALP at its August 1, 1996, and on May 27, 1997, meetings.

The FAA's approval of the runway extension project in this ROD signifies that the project meets FAA standards for approval of the agency actions discussed in Section II of this ROD. It does not, however, signify an FAA commitment to provide financial support for the runway extension, which is a decision which may not be made unless and until the project can be justified under the criteria prescribed by 49 U.S.C. § 47115(d), and under the agency policy announced in the Federal Register on June 24, 1997 (62 Fed. Reg. 34108), or under subsequent revisions to that agency policy.

**(3) Provide Runway Safety Areas (RSA's) that meet current FAA standards.**

The FEIS documents the fact that existing Sea-Tac runways do not meet current FAA safety design standards, in that three of the four runway ends have RSA's which are of insufficient length to ensure safe operations in the event of aircraft runway overruns [As noted at FEIS I-18 and at FSEIS 4-3, the RSA for runway end 34L was brought into compliance in 1995]. FAA approval of the RSA for runway end 34R was provided in a FAA Record of Decision dated April 18, 1996, notice of which was given through publication of an announcement in several local newspapers [discussed at FSEIS 3-8 and 4-3]. Construction is expected to be completed in late 1997.

For the remaining two RSAs (16R and 16L), consideration was given to the Do-Nothing/No-Build alternative during the EIS process. A literal do nothing approach (See FEIS II-24, footnote #12) was rejected as an unreasonable option early in the process, since it would not address the immediate need to correct a runway design which does not meet current FAA standards. Considered further as part of the detailed analyses of development alternatives 2, 3, and 4, were the No-Build alternative (requiring the establishment of displaced threshold/declared distance procedures for each runway), and the POS preferred alternative, involving the construction of a 1,000 foot RSA for the two remaining runway ends, as well as standard size RSAs on both ends of the new proposed third runway.

Under the Do-Nothing/No-Build alternative, these runway safety area improvements at Sea-Tac would not be developed now or in the near future. Although the FEIS and FSEIS find that, with appropriate mitigation, the POS preferred alternative will have no significant environmental impacts, the Do-Nothing/No-Build Alternative would still be the least environmentally impacting alternative, and thus the Do-Nothing/No-Build alternative is environmentally preferable. However, since it would fail to accomplish the principal purpose and need for the project, this alternative is not supported by the FAA.

As explained at FEIS page II-23, the FAA does not favor the establishment of displaced threshold/declared distance procedures at Sea-Tac, for reasons of safety and efficiency. Accordingly, having considered the policies set forth at 49 U.S.C. sections 40104 and 47101, the ability of the available alternatives to meet the articulated need, and the administrative record which concerns the proposed RSA extensions, the FAA hereby selects as the FAA's preferred alternative the RSA extension alternative

adopted by the POS as part of its Master Plan Update and ALP, at its August 1, 1996, and May 27, 1997, meetings.

The FAA's approval of the RSA extension projects in this ROD signifies that the projects meet FAA standards for approval of the agency actions discussed in Section II of this ROD. It does not, however, signify an FAA commitment to provide a specific level of financial support for the RSA extensions, which is a future decision which will be made under the agency policy announced in the Federal Register on June 24, 1997 (62 Fed. Reg. 34108), or under subsequent revisions to that agency policy.

**(4) Provide efficient and flexible landside facilities to accommodate future aviation demand.**

The FEIS and FSEIS document the need to incrementally improve existing terminal and other landside facilities at Sea-Tac over the next several decades, in order to alleviate the congestion and passenger inconveniences anticipated to result from regional growth and increased demand for airport services.

During the EIS process, the FAA considered but rejected for further detailed evaluation, the reduction of demand at Sea-Tac landside facilities through the development of a replacement or supplemental airport or airports in the Puget Sound region, through the use of other modes of transportation, or through demand and system management alternatives. For the reasons discussed in the FEIS, the FAA concluded, as it did in the case of the proposed third runway project, that these alternatives were unreasonable.

Although Delayed/Blended alternatives were also rejected in the FEIS as not meeting the need for landside improvements, it should be noted that the POS originally planned to incrementally expand and improve the Sea-Tac landside facilities discussed in the FEIS over the next 25 years, as the need for specific improvements was justified by the rate of increased demand placed upon existing facilities. With the accelerated demand forecast in the FSEIS, the terminal and landside facilities are now needed even sooner than originally forecast in the FEIS, and accordingly, the Delayed/Blended alternative is an even more unreasonable alternative. The current project phasing plans documented at FSEIS pages 2-22 to 2-23 and in Appendix A to this ROD represent earlier timeframes for many of these terminal and landside facilities, in order to accommodate these increased demand forecasts.

Carried forward for detailed evaluation in FEIS Chapter IV, and considered also in FSEIS Chapter 5, were the Do-Nothing/No Build

alternative, along with three development alternatives, centered around a central terminal concept, a north unit terminal concept, and a south unit terminal concept. As part of the POS Master Plan Update, an extensive engineering and financial evaluation was undertaken by the POS, to evaluate these proposed landside improvements. The FAA worked closely with the POS to develop the assumptions and methodologies during this portion of the alternatives evaluation. The FAA believes that this evaluation process was appropriately conducted, and therefore does not consider it necessary, in its independent Federal FEIS consideration of alternatives, to undertake a de novo comprehensive alternatives analysis of these landside improvements. The Port of Seattle, as the sponsor and airport operator, has the fundamental role of planning and developing aviation facilities at Sea-Tac. The preferred alternative recommended in the FEIS and FSEIS by the POS's planning staff (the North Unit Terminal concept), is well supported by airspace, engineering, environmental, and financial considerations, as documented in the Master Plan Update and in the FEIS and FSEIS.

Under the Do-Nothing/No-Build alternative, these landside improvements would not be developed now or in the next several decades. However, Federal approval of this alternative would fail to alleviate the congestion and passenger inconveniences anticipated to result from regional growth and increased demand for airport services. Although the FEIS and FSEIS find that, with appropriate mitigation, the POS preferred alternative will have no significant environmental impacts, the Do-Nothing/No-Build Alternative would still have the fewest developmental impacts. However, the Do-Nothing/No-Build Alternative would not be the environmentally preferable alternative, since it would fail to alleviate the significant environmental impacts associated with increased surface transportation congestion, which the preferred alternative is designed to remedy. Furthermore, since the Do-Nothing/No-Build Alternative would fail to accomplish the principal purpose and need for these landside development projects, this alternative is not supported by the FAA.

Accordingly, having considered the policies set forth at 49 U.S.C. sections 40104 and 47101, the ability of the available alternatives to meet the articulated need, and the administrative record which concerns these landside development projects, the FAA hereby selects as the FAA's preferred alternative the landside development recommended in the FEIS and FSEIS by the POS's planning staff (alternative #3, North Unit Terminal), as adopted as Part of its Master Plan Update and ALP, and as partially approved for immediate construction by the POS at its' August 1, 1996, and May 27, 1997, meetings.

The FAA's approval of these landside expansion and improvement projects in this ROD signifies that these projects meet FAA standards for approval of the agency actions discussed in Section II of this ROD. It does not, however, signify an FAA commitment to provide a specific level of financial support for these projects, which must await future decisions to be made under the criteria prescribed by 49 U.S.C. § 47115(d), and under the agency policy announced in the Federal Register on June 24, 1997 (62 Fed. Reg. 34108), or under subsequent revisions to that agency policy.

#### V. THE AGENCY FINDINGS

The FAA makes the following determinations for this project, based upon the appropriate information and analysis set forth in the FEIS and FSEIS and upon other portions of the administrative record:

A. The project is consistent with existing plans of public agencies for development of the area surrounding the airport. [49 U.S.C. 47106(a)(1)].

The determination prescribed by this statutory provision is a precondition to agency approval of airport project funding applications. It has been long-standing policy of the FAA to rely heavily upon actions of metropolitan planning organizations (MPOs) in amending regional airport system plans (RASPs) to satisfy the project consistency requirement of 49 U.S.C. 47106(a)(1) [see, e.g., Suburban O'Hare Com'n v Dole, 787 F.2d 186, 199 (7th Cir, 1986)]. Furthermore, both the legislative history and consistent agency interpretations of this statutory provision make it clear that reasonable, rather than absolute consistency with these plans is all that is required.

Under the provisions of both Federal and State Law (see FEIS Appendix S, and FEIS Appendix R, response to comment R-2-1), the Puget Sound Regional Council (PSRC) has been designated as the MPO for the Puget Sound metropolitan area, and given primary responsibility for transportation planning in the region. On April 29, 1993, the PSRC adopted Resolution No. A-93-03 amending the Puget Sound area RASP, to provide for a third runway at Sea-Tac. That resolution stated that a third Sea-Tac runway shall be authorized by April 1, 1996, subject to the following three conditions:

1. Unless shown through an environmental assessment, which will include financial and market feasibility studies, that a supplemental site is feasible and can eliminate the need for the third runway. [By PSRC resolution EB-94-01, dated October 27,

1994, the PSRC determined that a supplemental airport site was not feasible].

2. After demand and system management programs are pursued and achieved or determined not to be feasible, based upon independent evaluation. [By final order dated December 8, 1995, the expert panel appointed by the PSRC to independently evaluate this issue, determined that that demand and system management programs were not feasible].

3. When noise reduction performance objectives are scheduled, pursued and achieved based on independent evaluation and based on measurement of real noise impacts. [By final order dated March 27, 1996, a PSRC expert panel found that the POS had not satisfied this condition. However, on July 11, 1996, in Resolution A-96-02, the PSRC General Assembly approved an amendment to the Metropolitan Transportation Plan to include a third runway at Sea-Tac Airport, with specific noise reduction measures based upon recommendations of the expert panel].

In consideration of the above-described actions of the PSRC in amending the local RASP to authorize the third runway project [more fully described at FSEIS pages 4-1 to 4-2], the FAA is satisfied that 49 U.S.C. 47106(a)(1) has been fully complied with.

With regards to this issue, however, the FAA has also reviewed the substantial documentation in the administrative record demonstrating that throughout the EIS process the POS has shown great concern for the impact of the proposed development actions on surrounding communities, and has attempted to ensure the consistency of its project proposals with the planning efforts of neighboring communities. The administrative record for this Record of Decision includes a detailed chronology of coordination between the POS and neighboring jurisdictions concerning local planning proposals, along with documents describing the extensive public meetings, hearings, and other means by which public participation in project planning was accommodated. Further discussion of consistency of the proposed development projects with public agency planning is summarized at FEIS pages IV.2-7 through IV-2-18, and at FSEIS Chapter 4.

As noted in the referenced text, Sea-Tac Airport lies almost totally within the boundaries of the City of SeaTac. The extent to which City of Sea-Tac regulations apply to Sea-Tac Airport development is unresolved, and the POS is currently involved in a process with the City to resolve this question. Meanwhile the POS has committed itself to participating in the City's land use planning activities, to address any issues relating to the proposed Sea-Tac Airport development to the extent required.

As discussed at FEIS IV.2-10 through IV.2-16, the cities of Des Moines, Normandy Park, Burien, and Tukwila have each engaged in recent land use planning actions which appear designed to limit airport expansion. These local plans and ordinances establish land use compatibility guidelines with noise levels for residential and other noise-sensitive areas that are substantially more restrictive than those established by the FAA. Some of these local plans and ordinances also establish zoning policies (a prohibition on use of lands acquired by public entities to be used for new commercial activities). These ordinances purport to restrict the use of some lands within these jurisdictions (e.g., for the third runway northern Runway Protection Zone), needed by the POS in order to implement important safety and aircraft operation aspects of its preferred alternative.

It has not yet been decided under Washington state law whether the Master Plan Update proposed development actions would be subject to any of these plans and ordinances adopted by these adjacent cities. Thus there may be little or no inconsistency here. With regard to noise planning, the FAA has considered the fact that implementation of the POS preferred alternative will not result, after mitigation, in any significant increases in noise impacts on lands of these neighboring jurisdictions. To the extent that these adjacent cities impose restrictions on land acquisition by the POS for essential aviation safety and aircraft operation purposes, the FAA believes that such planning policies are inapplicable and invalid under Federal law.

In making its determination under 49 U.S.C. 47106(a)(1), the FAA has considered the fact that each of these local governments has been represented on the PSRC, and has participated as a member of that organization in its decision to authorize the third runway project at Sea-Tac (although some of these local governments may have disagreed, as individual PSRC members, with that ultimate decision). The FAA has also recognized the fact that none of these jurisdictions has regulatory authority over airport operations, since long-established doctrines of Federal preemption preclude these communities from regulating aircraft operations conducted at Sea-Tac.

Furthermore, these local government planning policies, which appear designed to obstruct the proposed Sea-Tac development, appear to be in conflict with provisions of the Washington State Growth Management Act, 1990, such as those found at RCW §§ 36.70A.100 and 36.70A.200, which require these city comprehensive plans to be coordinated with and consistent with regional policy decisions (e.g., the 1995 update of the Vision 2020 Growth and Transportation Strategy. Vision 2020 is the region's long-range

growth management, economic, and transportation strategy. The transportation component of Vision 2020 specifically incorporates PSRC Resolution A-93-03 which authorizes the third runway project).

The Growth Management Act also requires these local plans to be coordinated with and to be consistent with King County countywide planning policies and the comprehensive plans of King County and neighboring cities such as Sea-Tac, and prohibits any local comprehensive plan from precluding the siting of essential public facilities such as airports.

Given the FAA determination in this ROD, under appropriate Federal law, that there is a compelling need for the proposed Sea-Tac improvements, as documented in the FEIS, it is inappropriate for these local communities to attempt to exercise local zoning control in a manner which would conflict with the domestic and international aviation requirements of this airport. If there were to be a conflict between Federal and local policies, the local policies must give way to the Federal policies, under the doctrine of Federal preemption.

B. The interests of the community in or near which the project may be located have been given fair consideration.  
[49 U.S.C. 47106(b)(2)]

The determination prescribed by this statutory provision is a precondition to agency approval of airport development project funding applications. The regional planning process over the past decade and the environmental process for this project-specific EIS which began in 1994 and extended to this point of decision, provided numerous opportunities for the expression of and response to issues put forward by communities in and near the project location. Nearby communities and their residents have had the opportunity to express their views during the Draft EIS public comment period, at several public hearings and a congressional hearing, as well as during the comment periods following public issuance of the FEIS, the DSEIS, and the FSEIS. The FAA's consideration of these community views is set forth in FEIS Appendix R, in FSEIS Appendix F, and in Appendix A of this ROD.

C. The State of Washington has certified in writing that there is reasonable assurance that the project will be located, designed, constructed, and operated in compliance with applicable air and water quality standards [49 U.S.C. § 47106 (c) (1) (B)].



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.

D. Effect On Natural Resources [49 U.S.C. § 47106(c)(1)(C)]

Under this statutory provision the FAA may approve funding of a new runway or runway extension having a significant adverse effect on natural resources, only after determining that no possible and prudent alternative to the project exists and that every reasonable step has been taken to minimize the adverse effect.

As documented in the FEIS and FSEIS, for several natural resource impact categories which have established significance levels, the agency finds that, without implementation of the mitigation summarized in Section VI and Appendix F of this ROD, the preferred alternative would have a significantly adverse affect. However, given the inability of other alternatives discussed in the FEIS and FSEIS, to satisfy the purposes and needs for the preferred alternative, we have concluded that no possible and prudent alternative exists to development of the proposed alternatives. As discussed in Section VI and Appendix F of this ROD, and documented throughout the FEIS, FSEIS and the administrative record, every reasonable step has been taken to

minimize adverse environmental effects resulting from the project.

As discussed generally in FSEIS Chapters 1 and 2, and more specifically at FSEIS Appendix F, response to comment 2-J, specific airport activity levels and their associated environmental impacts were determined not to be reasonably foreseeable at this time following the year 2010. Accordingly, that year was set as the end of the planning horizon for the revised master plan update proposal evaluated in the FSEIS. However, FSEIS Appendix D did present possible activity levels and their associated environmental impacts for three test cases through the year 2020, based upon an extrapolated quantification of anticipated impacts prior to the year 2010. Although that extrapolated presentation is quite speculative, for the reasons explained in FSEIS Appendix F, the FSEIS does acknowledge that after the year 2010 there will likely be some level of adverse noise and land use impacts resulting from the approval of the preferred development alternatives, when compared to the no action alternative after that date.

Accordingly, in order to consider further mitigation under NEPA, and to address any possible adverse environmental effects resulting from the projects approved in this ROD, the FAA has decided to condition such approval upon the following additional noise and land use mitigation measure:

Following commencement of operations on the new runway, but prior to the year 2010, the POS and the FAA will undertake a further supplemental evaluation of noise and land use impacts anticipated after the year 2010. That supplemental evaluation may be included as part of a future Part 150 study undertaken by the POS. Following completion of that evaluation, if significant additional adverse environmental impacts are found, the Port of Seattle will be required to adopt further noise and land use mitigation measures designed to minimize any significant adverse effects found in that evaluation. This conditional approval will be enforced through a special condition included in future Federal airport grants to the Port of Seattle.

The FAA has reviewed the amount of such additional mitigation which would be required if the maximum additional adverse environmental effects estimated in FSEIS Appendix D should occur. This additional mitigation required would be similar to mitigation programs that have been implemented by the POS in the past, and are expected to be implemented as mitigation in connection with the projects approved in this ROD. Therefore, the FAA concludes that such additional mitigation is feasible. The POS has indicated that such additional mitigation would be financially feasible if it were to be required, based on this

special condition. The FAA also concludes that even if the maximum additional adverse environmental effects estimated in Appendix D should occur, it would still make the decisions set forth in this ROD and would approve the projects, subject to the special condition with respect to additional mitigation.

E. Appropriate action, including the adoption of zoning laws, has been or will be taken to the extent reasonable to restrict the use of land next to or near the airport to uses that are compatible with normal airport operations. [49 U.S.C. § 47107(a)(10)].

The sponsor assurance prescribed by this statutory provision is a precondition to agency approval of airport development project funding applications. In addition to the actions described in section IV.A. of this ROD, the Port of Seattle has worked extensively with local jurisdictions over the past two decades to develop and implement plans and policies to ensure compatible land use in the airport vicinity.

FEIS pages III-2 through III-4 and FSEIS chapter four, describe the current status of zoning and land use planning for lands near the airport. FEIS Appendix C, pages 3-9 outline former and existing noise programs which have been designed to either reduce noise at the source or mitigate the noise received by sensitive land uses in the airport vicinity. As explained in FEIS Chapter IV, sections 1 and 2, and FSEIS Section 5-3, with planned mitigation, development of the Master Plan Update proposals will not result in any increased significant impacts on non-compatible land uses. Based upon the entire administrative record for this ROD, the FAA has concluded that existing and planned noise reduction programs at Sea-Tac provide for appropriate action to ensure compatible land use in the airport vicinity.

F. Clean Air Act, Section 176(c)(1) Conformity Determination regarding Seattle-Tacoma International Airport Master Plan Update Development Actions (42 U.S.C. § 7506(c)).

The determination prescribed by this statutory provision is a precondition for Federal agency support or approval of airport development actions which are projected to exceed the *de minimis* air emission levels prescribed at 40 CFR § 93.153. USEPA regulations more generally governing the conformity determination process are found at 40 CFR Part 93, Subpart B.

In the 1996 FEIS, the FAA made a Draft Conformity Determination on the POS Master Plan Update proposals [FEIS pages IV.9-10 and IV.9-11]. Pursuant to the provisions of the USEPA regulations,

the FAA published notice of this draft conformity determination in the Federal Register on February 9, 1996 (61 Fed. Reg. 5055), announced the availability of the draft determination in several local newspapers, and provided notice to appropriate Federal, state and local public agencies. In these notices, the agencies and the general public were invited to review and comment on the draft conformity determination. Through a series of Federal Register notifications, the FAA ultimately extended this comment period until June 6, 1996 (61 Fed. Reg. 27944). Comments received during this 1996 comment period are presented at FSEIS Appendix B, Attachment D and are addressed at FSEIS Appendix B, Attachment A.

In February 1997, a Revised Draft Conformity Analysis was issued as part of the Draft SEIS, with a 30 day comment period announced in a February 9, 1997, Seattle Times advertisement. On March 7, 1997, the FAA announced an extension of the comment period on this draft analysis until March 31, 1997 [62 Fed. Reg. 10606]. FSEIS Appendix G presents all public and agency comments on the draft SEIS, including those pertaining to air quality issues. FSEIS Appendix F, section six, responds to those comments which concern air quality and conformity issues.

Due to a number of changes in the nature and timing of the Master Plan Update Development Proposals from those originally evaluated in the FEIS, the draft SEIS air quality analysis projected air quality emission levels below the 40 CFR § 93.153 *de minimis* levels.

Several commenters on the draft SEIS air quality and conformity analyses stated that factual errors had been made in those analyses. At the FAA's request, the EIS consultant then performed a detailed quality assurance reevaluation for the data input to the air emissions and dispersion models. This led to a revised air emissions inventory, with several revisions to the specific emission estimates presented in the draft SEIS. However, this quality assurance process confirmed the overall conclusion of the draft SEIS, which projected air quality emission levels below the *de minimis* levels set forth in 40 CFR § 93.153. FSEIS Appendix B details the basis for this conclusion. Accordingly, a formal conformity determination is not legally required under applicable EPA regulations.

ROD Appendix E presents letters dated June 23, 1997, from the United States Environmental Protection Agency, the State of Washington Department of Ecology, and the Puget Sound Air Pollution Control Agency. In their letters, each of these air quality agencies has concurred with the FSEIS analysis conclusion that the *de minimis* thresholds have not been exceeded for general conformity under the Clean Air Act.

However, in order to achieve maximum public disclosure and to address community concerns, the FSEIS nevertheless presents an analysis of air quality impacts utilizing the regulatory structure set forth in the EPA conformity regulations. The FSEIS Appendix B analysis demonstrates that if the FAA were legally obligated to make a conformity determination for the projects approved in this ROD, the project would not cause or contribute to any new exceedences of air quality standards. As confirmed by the Washington State Department of Ecology, the project conforms to the Washington State Implementation Plan.

As noted above, the Final SEIS, approved on May 13, 1997, included as Appendix B a Final Air Quality Conformity Analysis. At the request of several air quality agencies, the FAA agreed to provide an additional 30 day comment period on the FSEIS air quality analysis, due to the revisions which had been made to that analysis since issuance of the DSEIS. Notice of the availability of that analysis for public review and comment was published in the Federal Register on May 21, 1997 [62 Fed. Reg. 27830]. Appendix E to this ROD presents the comments received in response to this notice and the agency's response to those comments.

Based upon the air quality information and discussion presented in the FEIS, the FSEIS, and Appendix E of this ROD, and upon other supporting material in the administrative record, the FAA finds that the development actions summarized in ROD Appendix B will not cause air emissions that exceed de minimis thresholds set forth in 40 CFR § 93.153, and conform to the provisions of the Washington State Implementation Plan and the National Ambient Air Quality Standards (AAQS).

Because projects at Sea-Tac Airport are governed by the maintenance area designation, the FSEIS shows that the project will not cause or contribute to any new violations of any of the AAQS in the project area or the metropolitan area. Because the computer modeling predicts that exceedences of the Carbon Monoxide AAQS could occur in the future without the proposed improvements (Do-Nothing/No-Build), consideration was also given to the two non-attainment area principles, and the FSEIS showed that the project will not increase the frequency or severity of any existing violations of any AAQS, and that the project will not delay timely attainment of the AAQS or any required interim emission reduction in the project area.

G. For this project, involving new construction which will directly affect wetlands, there is no practicable alternative to such construction. The proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. [Executive Order 11990, as amended]

This executive order requires all Federal agencies to avoid providing assistance for new construction located in wetlands unless there is no practicable alternative to such construction and all practicable measures to minimize harm to wetlands are included in the action.

FEIS Chapter IV Section 11, and FSEIS Section 5-5 document that the preferred development alternative (North Terminal with 8500 foot runway) selected by the POS from the Master Plan Update study will directly affect approximately 12.23 acres of wetlands. Given the extensive FEIS and FSEIS alternatives analyses (summarized at FEIS IV.11-5 and FSEIS Chapter 3) showing that there are no other reasonable alternative to developing a third runway at Sea-Tac, the FAA additionally concludes that there is no practicable alternative to constructing such a runway, resulting in these wetland impacts, given the purposes and needs documented in the FEIS, consideration of environmental and economic factors, and land use issues.

FEIS Chapter IV, Section 11 and FSEIS Section 5-5, state that for each of the three landside development alternatives, an 8,500 foot runway would result in impacts to slightly more wetlands than would 7,000 foot or 7,500 foot runways. Additional runway length beyond 7,500 feet would require filling additional wetlands. Extending the runway to 8,100 feet requires filling 0.19 additional acres of wetlands, and extension to the full 8,500 feet requires filling a yet additional 0.86 acres. The FEIS and FSEIS demonstrate that these are low quality wetlands. Two of their significant functions, floodwater attenuation and floodwater storage, would be fully mitigated within the airport basin. Additional wetland functions for these wetlands will be mitigated at the Auburn site as part of the overall wetlands mitigation program.

An important purpose of the additional 600 and 400 feet of runway (to 8,100 or 8,500 feet) beyond the 7,500 foot runway is to provide the maximum air transportation service and efficiency available to the POS and the national air transportation system. Although a 7,500 foot runway provides many of the benefits of a new runway, it does not provide all of the desirable benefits. Alternatives of staggering runway ends or relocating the entire runway are not practicable, because, among other reasons, they would require considerable additional cost and complicate air traffic control procedures. Considering these and other reasons

described more fully in Appendix C of this ROD, considering the standards set forth at 40 CFR 230.10(a)(2), and taking into consideration cost, existing air traffic control and aviation technology and logistics, in light of the overall purpose of the runway project, the FAA finds that there is no practicable alternative to the wetland loss associated with an 8500 foot runway.

As noted in FEIS Chapter IV, Section 11, FEIS Appendix P, and FSEIS Section 5-5, the U.S. Army Corps of Engineers (COE) has worked with the FAA and the POS as a cooperating agency to ensure that all practicable measures will be taken to minimize harm to wetlands which will be impacted through development of the preferred alternative, through Best Management Practices during construction and the development of a wetland compensatory mitigation site. Following issuance of this ROD, the COE, in consultation with the Washington State Department of Ecology, will complete its processing of a Section 404 permit, required for the POS to proceed with development impacting wetlands. The project approvals in this ROD and this wetlands determination are expressly conditioned upon permit approval and conditions to be outlined by the U.S. Army Corps of Engineers, and upon the POS accomplishing the wetlands mitigation measures identified in the FEIS, FSEIS, and any COE permit approval.

Although it is generally preferable to attempt to mitigate wetland loss through replacement wetlands in the same watershed [a goal reflected in the local regulations discussed at FSEIS Appendix F, page 127], this is not the case where such replacement would create man-made wetlands adjacent to airport aircraft movement areas. Included at the end of FSEIS Section 5-5 is a reprint of FAA Advisory Circular 150/5200-33, dated May 1, 1997, which states the FAA's strong opposition to wetland mitigation projects located within 10,000 feet of airports serving turbine-powered aircraft [such as SEA-TAC], due to the safety hazard such wetlands present as attractants of wildlife, which significantly increase the risk of bird/aircraft strikes.

The safety standards set forth in this FAA policy statement are recommended for the operators of all public-use airports. Furthermore, for airport sponsors who are the recipients of Federal grant funding, adherence to safety standards set forth in FAA advisory circulars are a requirement of standard grant assurance #34, as acknowledged in paragraph 4-6.a. of Advisory Circular 150/5200-33.

This recent agency policy determination supports the FEIS and FSEIS determinations that the replacement wetlands for the Sea-Tac Master Plan Update development actions should not be located in the vicinity of the airport. Given the limited land area in

the Sea-Tac watershed available for wetland replacement, and the hazard associated with the creation of wildlife attractions within 10,000 feet of jet runways, there is no practicable alternative to the replacement of these impacted wetlands outside of the Sea-Tac watershed.

As detailed in FEIS Appendix P, and FSEIS Section 5-5, a detailed wetland mitigation program has been developed to offset the impacts of the project and to recognize other long-term biological problems. The mitigation plan calls for replacing the filled wetlands on a 47 acre mitigation site located on a 69 acre parcel of land along the Green River in Auburn Washington.

H. For this project, involving a significant encroachment on a floodplain, there is no practicable alternative to the selected development of the preferred alternative. The proposed action conforms to all applicable state and/or local floodplain protection standards. (Executive Order 11988)

This executive order, together with applicable DOT and FAA orders, establish a policy to avoid supporting construction within a 100 year floodplain where practicable, and where avoidance is not practicable, to ensure that the construction design minimizes potential harm to or within the floodplain.

Chapter IV Section 12 of the FEIS explains that, without mitigation, construction and operation of the Master Plan Update preferred alternative could result in significant adverse floodplain impacts in both the Miller and Des Moines Creek basins. The FSEIS analysis does not alter the FEIS analysis, but presents additional information at FSEIS Appendix F, pages 123-124, based on a 1997 POS Stormwater Review Study.

As outlined in the "alternatives" discussion earlier in this ROD and in the FEIS and FSEIS, there is no practicable alternative to the preferred alternative. Development of this alternative achieves the purposes and needs for the projects in the most cost-effective manner with the least impact on the surrounding land uses. As shown in FEIS Appendix P, a mitigation program has been designed which will create an equivalent amount of floodplain so that there would be no net loss of flood storage capacity or increased risk of loss of human life or property damage. This program has been designed to comply with applicable requirements of the permitting agencies, with whom the FAA and the POS have been coordinating in order to ensure that the construction design minimizes potential harm to or within the floodplain. Each of these agencies have agreed with the mitigation plan in concept and the coordination will continue throughout the permitting process.



I. Relocation Assistance (42 U.S.C. § 4601 et. seq.)

These statutory provisions, imposed by Title II of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (URA), require that state or local agencies undertaking Federally-assisted projects which cause the involuntarily displacement of persons or businesses, must make available relocation benefits to those persons impacted.

As detailed in FEIS Chapter IV, Sections 6 and 8, the preferred development alternative would displace up to 391 single family, 260 condos/apartments, and 105 businesses. Of the 105 businesses identified by the FEIS, 88 are located in the Runway Protection Area. While the FAA prefers airport sponsors to have control over the land in the RPZ, exceptions to property ownership can occur as long as the use of the land does not represent a hazard to aircraft operation. The Port has surveyed these property owners and their use.

The FAA will continue to coordinate with the POS concerning the need for acquisition versus the purchase of easements to ensure the appropriate land use control. The FAA will require the POS to provide fair and reasonable relocation payments and assistance payments pursuant to the provisions of the URA. Comparable decent, safe, and sanitary dwellings are available for occupancy on the open market. (See FEIS, pages IV.6-5 to IV.6-7).

J. For any constructive use of lands with significant historic sites, there is no prudent and prudent and feasible alternative to using the land, and the project includes all possible planning to minimize harm resulting from the use. [49 U.S.C. § 303(c)]

FEIS Chapter IV, Section 4, concluded that the Master Plan Update development actions would not involve either the use or constructive use of resources protected by this statutory provision, more commonly referred to as "4(f)" resources.

However the FSEIS, at Section 5-5, pages 8-19, shows that when comparing the no action and the preferred alternative using the updated airport activity forecasts, several structures (one school and three homes) which may be of local historical significance, will experience noise impacts which exceed the Federal standard (a 1.5 DNL increase within the 65 DNL contour).

As discussed at FSEIS Section 5-5, pages 13-14, the FAA questions whether most of these structures are truly of historical significance, despite their designation as such by communities

surrounding the airport. The FAA also questions whether these structures will be "constructively used" under the circumstances discussed in the referenced FSEIS text, because there will be no significant degradation of the noise environment of these structures since the time when they were designated as locally significant, and thus there will likely be no significant degradation of their historic or architectural values.

Nevertheless, assuming such "local historical significance" and such a "constructive use", the referenced FSEIS text demonstrates that there is no prudent or feasible alternative to any such constructive use. Furthermore, based upon the acoustical insulation planned for these structures by the POS (discussed at FSEIS Section 6-6, pages 17-19), the FAA concludes that there has been all possible planning to minimize any harm resulting from any such constructive use.

K. There are no disproportionately high and adverse human health or environmental effects from the project on minority or low-income populations. [Executive Order 12898]

Environmental justice concerns were addressed in Chapter IV.6, page IV.6-6 and IV.6-7 of the FEIS, and it was concluded that no minority, age or income group would be disproportionately affected by displacements that would occur as a result of the Preferred Alternative. Individual comments regarding environmental justice were also addressed on page R-102 of FEIS Appendix R. The FSEIS contained an extensive discussion of environmental justice issues on page F-98 through F-101 in response to comments on this issue. It was concluded that the proposed noise exposure impacts from the Proposed Master Plan Update improvements will not disproportionately affect minority and low-income communities and that the impacts of the higher demand forecasts were not different than those discussed in the FEIS.

L. The FAA has given this proposal the independent and objective evaluation required by the Council on Environmental Quality. [40 CFR 1506.5]

As outlined in the FEIS, there was a lengthy process that led to the ultimate identification of the preferred alternative and appropriate mitigation measures. This process began through the FAA competitive selection of an independent EIS contractor which was financially-disinterested in the project outcome, and continued throughout the NEPA process. The FAA provided input, advice, and expertise throughout the planning and technical analysis, along with an administrative and legal review of the

project. From its inception, the FAA has taken a strong leadership role in the environmental evaluation of this project, and has maintained its objectivity.

## VI. MITIGATION

In accordance with 40 CFR 1505.3, the FAA will take appropriate steps, through Federal funding grant assurances and conditions, airport layout plan approvals, and contract plans and specifications, to ensure that the following mitigation actions are implemented during project development, and will monitor the implementation of these mitigation actions as necessary to assure that representations made in the FEIS and FSEIS with respect to mitigation are carried out. The approvals contained in this Record of Decision are specifically conditioned upon full implementation of these mitigation measures. These mitigation actions will be made the subject of a special condition included in future Federal airport grants to the POS.

FEIS Chapter V, and Appendix F to this ROD include summaries of the mitigation actions discussed more fully in FEIS Chapter IV and FSEIS Chapter 5, for each environmental impact category. Based upon these discussions, the FAA finds that all practical means to avoid or minimize environmental harm have been adopted, through appropriate mitigation planning. Mitigation measures for those impact categories where mitigation measures are necessary to avoid or minimize significant environmental impacts, as well as identified or adopted monitoring and enforcement programs, are summarized below:

### A. Noise and Land Use

As discussed in FEIS Chapter IV, Sections 1 and 2, and FSEIS Chapter 5, Sections 3 and 6, future noise impacts within the study area will be less than current noise exposure due to the continued phase-out of Stage II (noisier) aircraft. However in the future the preferred alternative is expected to still result in greater significant [1.5 DNL within the 65 DNL contour] noise exposure in comparison to the future do-nothing alternative. [See FSEIS Exhibit 5-6-1 for a graphic comparison of noise exposure for no action alternative and the preferred alternative in the year 2010].

To facilitate continued noise reduction, the following noise and land use mitigation programs now in effect will continue to be implemented.

- Noise Budget – The goal of the Noise Budget of an all Stage 3 fleet is anticipated to be reached by the year 2001.
- Nighttime Limitations Program – limiting the hours of operation for Stage 2 aircraft.
- Ground Noise Control – reducing the noise of ground events such as powerback operations, run-ups, and reverse thrust on landing.
- Flight Corridorization – maintenance of north flow east turn runway heading flight track by departing jets until reaching altitudes above 4,000 feet.
- Flight Track and Noise Monitoring – maintenance of noise level records and flight track location information for identification of deviations and communication with the public and users.

The FEIS concluded that since relatively few properties were projected to experience significant impacts, and since they already fall within the boundaries of one or more of the POS's existing noise remedy programs designed to mitigate to non-significance airport noise levels, no additional project-related mitigation would be needed, as described at FEIS page IV.2-6,7.

However, the updated airport activity forecasts evaluated in the FSEIS resulted in an increase of noise exposure of approximately 7.69 square miles, and 11 percent more persons (approximately 1,280 persons, in an additional 460 dwelling units) being significantly affected by the preferred alternative in contrast to the do-nothing alternative, by the year 2010.

Furthermore, by the year 2010, a small portion of this area [with approximately 170 newly impacted residents], would be located outside of the POS existing noise remedy boundary [This is graphically shown in FSEIS exhibit 5-6-1]. The POS will be required to modify its mitigation strategy, as described at FSEIS pages 5-6-5 to 5-6-7, and in the following paragraph #4, to include these 170 newly-impacted residents within in its Noise Remedy Program.

To address changes in specific noise conditions, primarily associated with the third parallel runway, the Port will be required to undertake the following specific mitigation actions:

1. Mitigating Significant Noise Impacts on Public Facilities and Historic Sites: The following nine public facilities or historic sites would experience significant increased noise impacts (i.e. an increase of 1.5 DNL or more) in the year 2010 in comparison to the Do-Nothing alternative:

- Sea-Tac Occupational Skills Center;
- Woodside Elementary School;
- Sunnydale Elementary;

- Albert Paul House;
- Homer Crosby House;
- Sunny Terrace Elementary School;
- Brunelle Residence;
- Coil House;
- Bryan House.

Impacts on the facilities incompatible with noise associated "With Project" will be mitigated by acoustical insulation that would allow their uses to be compatible with increased noise levels. Because of their historic value, the five residences and Sunnydale School (locally significant historic facilities) could require custom treatment to avoid significant alteration of the architectural style. In pursuing sound insulation of these structures, the Port's Noise Remedy Office will work with a historian to preserve such characteristics.

2. Provide Directional Soundproofing: Residences that were insulated prior to 1992 may need additional directional soundproofing to mitigate noise generated from a new flight path from the operation of the proposed new third runway. To mitigate noise caused by the proposed airport improvements, the Port will conduct audits and sound insulate these facilities if additional insulation is warranted.
3. Acquisition in the Approach Transitional Area: In recognition of the fact that the standard Runway Protection Zone (RPZ) dimensions do not always provide sufficient buffer to the satisfaction of nearby residents, the FAA has indicated that funding could be available to airport operators acquiring up to 1,250 feet laterally from the runway centerline, and extending 5,000 feet beyond each end of the primary surface. Based on the configuration of current airport land, local streets, and residential development patterns, the approach and transitional area selected for use as a mitigation area includes the standard Runway Protection Zone and a rectangular extension of the RPZ outward another 2,500 feet.

Acquisition would include all residential uses, and any vacant, residentially zoned properties which cannot be compatibly zoned, within selected areas both to the north and the south of the new runway ends. Commercial land uses, which make up most of the eligible area to the south, will not be acquired. Input from the affected residents is necessary to design and initiate an acceptable relocation program. The Port will develop the appropriate implementation program for this action during the forthcoming Sea-Tac Airport FAR Part 150 Update, which the Port anticipates undertaking during 1997. The implementation plan will include coordination with eligible residents concerning

their desire to participate and then establish relocation objectives, timing and funding priorities.

Sound insulation of residences affected by 1.5 DNL or greater within 65 DNL noise exposure: About 170 of these homes within 65 DNL would be exposed to 1.5 DNL or higher noise levels as a result of the proposed improvements and are not already subject to the Port's existing Noise Remedy Program. The Port will develop an implementation strategy to sound insulate these 170 additional homes within the 65 DNL noise contours as part of the Part 150 Noise Compatibility Plan study effort. The purpose of delegating finalization of the implementation approach for this action to determination during the Part 150 process is to ensure that consideration is given to the proposed Approach Transition Area acquisition and the relationship of that area to the existing Noise Remedy Program boundary, as well as the westerly expansion of the Noise Remedy Program to accommodate this added insulation.

In Port Resolution No. 3125 dated November 1992, the POS committed to develop and implement a plan to insulate up to 5,000 eligible single family residences in the existing noise remedy program included on the waiting list as of December 31, 1993, before commencing construction of the proposed runway. The remaining eligible single family residences on the waiting list are to be insulated prior to operation of the proposed runway. In addition, the Port has committed to complete insulation of all single-family residences that become eligible for insulation as a result of actions taken based on the site-specific EIS and are on the waiting list as of December 31, 1997, prior to commencing operations of said runway.

Pursuant to PSRC Resolution A-96-02, the POS will be required to conduct a Part 150 study with the goal of assessing needed additional noise abatement and mitigation. This study began late in 1996, and is expected to take several years.

The FAA will consider as required mitigation a standard insulation package for homes that fall both inside and outside the 65 DNL project contours, which are within the POS noise remedy program boundaries, since this was the intent of the PSRC in conditioning its regional approval of the 3rd runway upon the accomplishment of additional noise mitigation measures.

The FAA will continue to support and monitor the POS's existing and future noise programs, in order to ensure that any anticipated significant project noise and land use impacts are fully mitigated by the time the third runway becomes operational.

Finally, for significant project noise impacts which might occur after the year 2010, the FAA will also require a supplemental environmental evaluation and appropriate mitigation, as described in Section V.D. of this ROD.

**B. Archaeological, Cultural and Historical Resources**

FEIS Chapter IV, Section 3, finds that no known significant archaeological or cultural sites would be physically impaired as a result of the preferred alternative, and that mitigation is therefore not anticipated to be necessary. The FSEIS [Chapter 5, Section 5-6] does not alter that conclusion. ROD Section V.J. addresses the issue of mitigating any noise-based "constructive use" of these resources.

Both the FEIS and the FSEIS state that in the event artifacts are discovered during construction activities, construction in the area will be halted immediately in order to record the finding, determine its level of significance, and develop appropriate mitigation measures.

As noted in FSEIS Section 5-6, the Sunnydale Elementary School could receive significant increased noise in the future when a comparison is made between noise associated "with project" versus noise associated with the "do nothing" alternative. Because of this noise increase, the agency, through its EIS consultant team, initiated consultation with the Washington Department of Community, Trade and Economic Development, Office of Archeology and Historic Preservation (the State Historic Preservation Officer, or SHPO).

At the time that the FEIS was published in February 1996, a significant change in noise impact to this school associated with the project was not anticipated. However, since that time, through preparation and publication of the FSEIS, the data suggests that noise impacts associated with the higher forecast operations might result in a significant noise impact to this school. The following summarizes the noise impact at Sunnydale Elementary School:

	<u>Do-Nothing</u>	<u>With-Project</u>
Existing	65.8	NA
Year 2000	61.6	61.6
Year 2005	61.7	63.7
Year 2010	62.3	65.1

As is shown in the above noise exposure data, "with-project" will be less than existing or past noise exposure. During earlier

years, this school was exposed to even greater noise exposure. The 1984-1985 noise contour indicates that this school was exposed to between 70-75 DNL sound levels during that period (Sea-Tac International Airport Part 150 Study Noise Compatibility Planning, dated February 1985, Exhibit 3-5).

While this site is not currently listed on the National Register of Historic Places, during consultation on the 1996 FEIS, the SHPO indicated that it could be eligible. Because of the change in impacts, a follow-up request concerning eligibility was made of the SHPO. On February 10, 1997, the SHPO stated "It is my opinion that the Sunnydale School is eligible for National Register listing. Information provided indicates that the school has played a significant role in the development of the Burien area, and retains character defining features conveying its historic function as a school". As suggested by the SHPO, a April 14, 1997, letter was forwarded to the Advisory Council on Historic Preservation (ACHP) for the purpose of determining if the ACHP wished to participate in the development of a Memorandum of Agreement to address mitigation.

Because the school is currently affected by noise above 65 DNL, and could continue to be affected in the future, the POS has proposed to sound insulate this school. Recognizing it's historic context, the FSEIS notes that "Because of their historic value, these facilities [several homes which the SHPO has since determined not eligible for inclusion on the National Register, and Sunnydale school] could require custom treatment to avoid significant alteration of the architectural style. In pursuing sound insulation of these structures, the Port's Noise Remedy Office will work with a historian to preserve such characteristics" [*emphasis added*]. The City of Burien Public Hearing Draft Proposed Comprehensive Plan dated April 1997 (page II-96) states "Cedarhurst and Sunnnydale elementary schools will be remodeled to increase capacity to 650 students by the year 2002". The current capacity of Sunnydale is 525 students. Thus, the sound insulation could be done as part of the scheduled remodel and can be conducted to ensure compatibility of the structure relative to its continued use as an educational facility.

On April 14, 1997, at the request of the SHPO, the FAA's EIS historic consultant sent a letter to Ms. Claudia Nissley of the ACHP Western Office of Project Review summarizing this situation and stating: "In response to a request from the SHPO, we are asking if the Advisory Council would like to be involved in the MOA...If I do not hear from you within (30) days after your receipt of this letter, I will assume that you do not wish to participate in the MOA". This letter was addressed to the ACHP Western Office address of record and was not returned to the



sender. However, as a courtesy, the consultant contacted the ACHP Western Office in June 1977 to follow up on the letter. As part of this contact, the ACHP verbally indicated that it had not received the letter, but that it would refer the issue to the Washington DC office of ACHP. No response has been received from either the ACHP Western Office or the ACHP Washington DC office as of the date of approval of this ROD.

For the reasons discussed in FEIS section 5-6, the FAA questions whether the consultation procedures under the National Historic Preservation Act apply to the Sunnydale School. Nevertheless, the FAA has attempted to consult with the appropriate agencies. As is noted in the Final Supplemental EIS, relative to the National Historic Preservation Act, this school is the only property arguably affected. The FAA is approving the Master Plan Update project at this time having considered the following:

- The noise impacts that would be experienced at this school would be less than the current noise exposure;
- The noise exposure has not altered the use of this site as a school and is not related to its historic significance;
- Appropriate mitigation has been proposed and will be required by the FAA to address any significant aircraft noise exposure impacts;
- In light of the failure of the ACHP to respond to correspondence concerning this project, the FAA and the POS have initiated additional consultation with the SHPO concerning the development of a Memorandum of Agreement to address sound insulation mitigation.

Consultations have occurred with the SHPO and have been attempted with the ACHP as part of the FAA's comprehensive efforts to involve all appropriate commenters and as a courtesy, the FAA and the POS will continue to work with the appropriate agencies. In reaching its conclusions relative to the National Historic Preservation Act, the FAA's findings are supported by the FSEIS and ROD evaluation performed relative to DOT Section 4(f).

### C. Social and Induced Socio-Economic Impacts

As detailed in FEIS Chapter IV, Section 6, the preferred development alternatives would displace up to 391 single family, 260 condos/apartments, and 105 businesses. Of the 105 businesses identified by the FEIS, 88 are located in the Runway Protection Area. While the FAA prefers airport sponsors to have control the land in the RPZ, exceptions to property ownership can occur as long as the use of the land does not represent a hazard to aircraft operation. The Port has surveyed these property owners and their use and will continue to coordinate with the FAA

concerning the need for acquisition versus the purchase of easements to ensure the appropriate land use control. Given the anticipated displacement and relocation of people, the FAA will require the POS to provide fair and reasonable relocation payments and assistance payments pursuant to applicable provisions of 42 U.S.C. § 4601 et. seq. and implementing regulations.

#### D. Air Quality

As noted in ROD section V.C., the Governor of the State of Washington has certified to the FAA after reviewing the FEIS and FSEIS that the project will be located, designed, constructed, and operated in compliance with applicable air quality standards.

In Section V.F. of this ROD air quality conformity under 42 U.S.C. § 7506(c) is discussed, and it is concluded that the project will, although not exceeding the de minimis thresholds for general conformity, nevertheless conforms to the Washington State Air Quality Implementation Plan and the National Ambient Air Quality Standards. With no significant air quality impacts, no air quality mitigation is necessary.

FEIS Chapter IV, section 9 and its supporting Appendix D, had included a worst-case intersection "hot spot" analysis of the preferred alternative, which predicted slight potential exceedences of air quality standards for carbon monoxide at two key intersections at the northeast side of the airport, as the year 2010 approached. The FEIS had contemplated future air monitoring and evaluation in order to determine whether specific mitigation of these exceedences would be required.

However, as explained at FSEIS page 5-2-10, project planning of the surface transportation features for those two intersections has since been modified so as to eliminate these modeled potential exceedences, thus avoiding the necessity for future mitigation of this nature. Specifically, the POS will accomplish the following:

- At the time that the North Unit Terminal is undertaken, the Port will develop additional southbound right turn and northbound left turn capability at the intersection of S. 170th Street at International Blvd., unless shown by then current conditions that these improvements are no longer necessary; and
- At the time that the North Employee Parking Lot is undertaken, the Port will develop additional intersection turning capability at the intersection of South 154th Street at 24th Avenue S.

- To ensure that construction emissions do not exceed the air conformity de-minimis levels, the Port will ensure that annual construction-related truck haul does not exceed 280,700 two-way trips by Heavy Duty Diesel Vehicles.
- To minimize construction related particulate emissions, the Port will implement construction Best Management Practices (BMPs) as noted in Table 5-4-8 in the Final Supplemental EIS.

#### E. Water Quality

As noted in ROD section V.C., the Governor of the State of Washington has certified to the FAA after reviewing the FEIS and FSEIS that the project will be located, designed, constructed, and operated in compliance with applicable water quality standards. Furthermore, the approvals in this ROD are expressly conditioned upon the POS accomplishing the water quality mitigation measures identified in the FEIS and FSEIS.

With implementation of the preferred alternative developments, there would be widespread surface area disturbance throughout the study area, which has the potential to significantly affect area hydrology. Absent mitigation, the extensive earthmoving required during project construction has the potential to significantly impact the flow rates and water quality of soil infiltration, surface runoff, and stream flow.

FEIS pages IV.10-16 through IV.10-20 provide an extensive set of mitigation measures designed to avoid or minimize these hydrological impacts. These include a set of stormwater management measures based upon Department of Ecology standards, BMPs (best management practices) required by applicable Federal, state and local laws, policies and design standards, as well as other requirements set forth in existing and additional NPDES permits to be required of the POS.

Specifically, the POS will be required to implement the following water quality and hydrology mitigation:

- a. Construction Erosion and Sedimentation Control Plan. Prepare a construction erosion and sedimentation control plan for the construction of the new runway. The plan shall require use of Best Management Practices (BMPs) including but not limited to the following:
  - Erosion control measures such as use of mulching, silt fencing, sediment basins, and check dams that are properly applied, installed, and maintained pursuant to agreements with contractors.

- Spill containment areas to capture and contain spills at construction sites and prevent their entry into surface or ground waters. Install proper temporary fuel storage areas and maintenance areas to reduce the potential for spills and contamination.
- Phasing of construction activities to minimize the amount of area that is disturbed and exposed at any one time.
- Where feasible, use of temporary and permanent terraces for fillslopes and cutslopes to reduce sheet and rill erosion and reduce transport of eroded materials from the construction site.
- Install gravel and wheel wash facilities on construction equipment access roads and encourage covering of loads to minimize sediment transport onto nearby roads.

b. Stormwater Management Plan. Prepare a stormwater management plan for the new runway that includes the following:

- Detention criteria should be based upon Department of Ecology standards limiting 2-year peak flow rates from the developed portions of the site to 50% of the existing 2-year rate, limiting the developed 10-year rate to the existing 10-year rate, and limiting the developed 100-year flow rate to the existing 100-year rate.
- Design stormwater facility outlets to reduce channel scouring, sedimentation and erosion, and improve water quality. Where possible, flow dispersion and outlets compatible with stream mitigation will be incorporated into engineering designs.
- Maintain existing and proposed new stormwater facilities. Stormwater management facilities will be maintained according to procedures specified in the operations manuals of the facilities.

c. NPDES Permit Requirements. Comply with the requirements of the National Pollution Discharge Elimination System permit for the airport dated June 30, 1994, as may be revised from time to time.

FSEIS pages 5-7-4 through 5-7-6 discuss additional mitigation measures relating to groundwater concerns of the Seattle Water Department. Additional related mitigation measures are set forth in a June 20, 1997, agreement between the POS and The City of Seattle Public Utilities Department, pertaining to the proposed North Employee Parking Lot at SEATAC. That agreement is incorporated by reference in this ROD.

## F. Wetlands

FEIS Chapter IV, Section 11, documents that the preferred development alternative (North Terminal with 8500 foot runway) will directly affect approximately 10.37 acres of wetlands. FSEIS Section 5-5 modifies this figure to approximately 12.23 acres of wetlands. As noted in FEIS Chapter IV, Section 11, FEIS Appendix P, and FSEIS Chapter 5, section 5-5, the U.S. Army Corps of Engineers (COE) has worked with the FAA and the POS as a cooperating agency to develop a wetland compensatory mitigation site. The mitigation plan calls for replacing the filled wetlands on a 47 acre mitigation site located on a 69 acre parcel of land along the Green River in Auburn Washington. As explained in this ROD at Section V.G., this off-site, out-of-watershed mitigation is consistent with FAA policy, and will be required as a condition of FAA grant assurances associated with Federal funding of the Master Plan Update development projects.

In December 1996, the Port submitted an application to the Army Corps of Engineers for a permit to fill wetlands at Sea-Tac Airport associated with the Master Plan Update improvements in compliance with the Clean Water Act, Section 404. The 404 permit application submitted to the Corps of Engineers includes a completed Joint Aquatic Resources Project Application (JARPA) form, in a report entitled "JARPA Application for Proposed Improvements at Seattle-Tacoma International Airport" dated December 1996. Upon issuance of this ROD, the COE, in consultation with the Washington State Department of Ecology, will complete its processing of a COE Section 404 permit, required for the POS to proceed with development impacting wetlands.

## G. Floodplains

Chapter IV Section 12 of the FEIS explains that, without mitigation, construction and operation of the Master Plan Update preferred alternative could result in significant adverse floodplain impacts in both the Miller and Des Moines Creek basins. As shown in FEIS Appendix P, a mitigation program has been designed which will create an equivalent amount of floodplain so that there would be no net loss of flood storage capacity or increased risk of loss of human life or property damage. This program has been designed to comply with applicable requirements of the permitting agencies, with whom the FAA and the POS have been coordinating in order to ensure that the construction design minimizes potential harm to or within the floodplain. Each of these agencies have agreed with the mitigation plan in concept and the coordination will continue throughout the permitting process. The FSEIS does not alter the conclusions or mitigation approach discussed in the FEIS.

## H. Surface Transportation

FEIS Chapter IV, Section 15, presented the results of both an initial analysis and a refined analysis of level of service volumes for the preferred alternative, at relevant intersections and freeway ramp junctions in the airport vicinity. The initial analysis indicated a slight and nonsignificant degradation of level of service at only one intersection, not requiring any mitigation.

The FEIS refined analysis of the preferred alternative included two scenarios, one assuming the construction of a SR 509 extension, and one assuming no such extension. This refined analysis showed adverse impacts (defined as a significant degradation in level of service when compared with the do-nothing alternative) at a number of intersections and at one freeway ramp junction, with and without SR 509, requiring a variety of intersection and ramp junction improvements as mitigation.

However, the revised surface transportation analyses presented in the FSEIS reflected changes in the design and timing of the surface transportation components of the Master Plan Update development actions. The FSEIS analysis concluded that no significant adverse changes in Levels of Service would result from the preferred alternative for any of the evaluated intersections and freeway ramp junctions in the airport vicinity during the project planning period. Accordingly, no surface transportation project-related mitigation is required.

## I. Plants and Animals

FEIS Chapter IV Section 16 discusses the impacts of the preferred alternative upon vegetation and wildlife communities. Absent mitigation, the greatest project-related impacts to these resources would result from the degradation of area hydrology, water quality, aquatic habitat and biota of Miller and Des Moines Creeks, due to the realignment and relocation of portions of these waterways.

FEIS pages IV.16-11 through IV.16-15 and FEIS Appendix P discuss these anticipated impacts and planned measures to mitigate these biological impacts. These mitigation measures include a wetlands replacement plan, creek relocation and habitat improvement plans, a stormwater pollution prevention plan, and a spill prevention control and countermeasures plan. These plans are subject to approval of a number of other Federal, state and local agencies, as conditions to issuance of required permits.

The FSEIS presents no additional information which would alter the FEIS conclusions with regard to this mitigation.

J. Services/Utilities

FEIS Chapter IV Section 18 discusses the impacts of the preferred alternative upon public services and utilities serving the immediate airport vicinity. The greatest project-related impacts to these resources would result from relocation or abandonment of fresh water, sanitary sewer, electrical power and telephone pipes and lines which transverse the project area. FEIS page IV.18-7 discusses the required mitigation, which includes POS assuming the cost of these relocations and abandonments. The FSEIS presents no additional information which would alter the FEIS conclusions with regard to this mitigation.

K. Earth

FEIS Chapter IV Section 19 discusses the impacts of the preferred alternative upon the geology, soils and hazard areas in the immediate airport vicinity. The greatest project-related impacts to these resources would result from the extensive clearing, grading, excavation, and fill placement required throughout the project area. FEIS page IV.18-7 discusses mitigation measures, which include the design and implementation of an erosion and sedimentation control plan subject to approval by state and local authorities, and a landscaping plan. The FSEIS presents no additional information which would alter the FEIS conclusions with regard to this mitigation. Specifically, the POS will implement the following earth-related mitigation:

- The FEIS identifies two seismic hazard areas on the site of the new runway, referred to as "relatively small areas of loose shallow sediment". The Port will remove the sediment and replace it with compacted fill, or other appropriate engineering approach to stabilizing these areas, should be included in the final engineering plans.
- Prepare a landscaping plan for the new runway area, including plans for seeding and planting of vegetation to stabilize areas of fill that will not be covered by impervious surface.

L. Hazardous Substances

FEIS Chapter IV Section 21 discusses the impacts of the preferred alternative associated with hazardous substances. Concerns in

this area include the exposure of contaminated soils during excavation activities, release of hazardous substances during underground storage tank removal and building demolition activities associated with facility relocations, and spills of construction-related hazardous materials. FEIS pages IV.21-8,9 discuss mitigation measures, which include the development of a spill pollution, control and countermeasures plan for the transport, storage and handling of hazardous materials, and a hazardous substances management and contingency plan for the removal, storage, transportation and disposal of hazardous wastes. The FSEIS presents no additional information which would alter the FEIS conclusions with regard to this mitigation.

#### M. Construction

FEIS Chapter IV Section 23 and FEIS Appendix J, discussed the temporary impacts to the environment associated with the construction activities necessary to implement the preferred alternative. These temporary impacts included air, water and noise pollution, social and socio-economic impacts, and the disruption of surface transportation patterns. Since detailed design and construction plans for the proposed projects had not yet been prepared, it was not then possible to identify the specific types of construction equipment or the frequency of its usage. Accordingly, the FEIS discussed a range of construction-related impacts, using worst-case assessments which assume a range of excavation sources and means of transporting fill material.

Under the FEIS worst-case analysis, absent mitigation, the most significant construction-related impacts would be a temporary degradation of the level of service levels on freeways, highways, arterials, and permitted local streets used for truck hauling of fill material through congested areas during peak travel times.

The FEIS construction impacts section discussed mitigation measures, including the development of a construction and earthwork management plan, which will specify hours of operation, haul routes, and similar controls, and would discourage haul activities along extremely congested routes and during extreme roadway congestion periods. This plan would also provide for signalization and other improvements to several intersections in the vicinity of the airport which may be impacted by construction hauling activity.

Additional construction-related mitigation measures include property acquisition to minimize potential social and neighborhood disruption, fill spillage prevention and removing



procedures, fugitive dust prevention, and an erosion and sediment control plan.

FSEIS Chapter 5, section 5-4, presents additional information developed since publication of the FEIS, including changes to construction phasing, a lengthening of the runway haul duration, the identification of additional haul routes, and the identification of two temporary interchanges on SR 518 and SR 509. This additional information permitted a refined analysis of possible construction impacts in the FSEIS, and the identification of additional mitigation measures presented at FSEIS Table 5-4-8.

Based on the selected fill hauling plan, the FAA will require the POS to include essential provisions of its construction and earthwork management plan in construction earthwork bid documents as contractual requirements.

## VII. DECISION AND ORDER

Although the "No Action" alternatives have fewer developmental impacts than the preferred alternative, they fail to achieve the purposes and needs for these projects. For the reasons summarized earlier in this ROD, and supported by detailed discussion in the FEIS and FSEIS, the FAA has determined that the preferred alternatives are the only possible and prudent alternatives as well as the most practicable.

Having made this determination, the two remaining decision choices available for the FAA are to approve the agency actions necessary for the projects' implementation, or to not approve them. Approval would signify that applicable Federal requirements relating to airport development planning have been met, and would permit the Port of Seattle to proceed with the proposed development and receive Federal funds for eligible items of development. Not approving these agency actions would prevent the Port of Seattle from proceeding with Federally supported development in a timely manner.

I have carefully considered the FAA's goals and objectives in relation to various aeronautical aspects of the proposed master Plan Update development actions discussed in the FEIS, including the purposes and needs to be served by the projects, the alternative means of achieving them, the environmental impacts of these alternatives, the mitigation necessary to preserve and enhance the environment, and the costs and benefits of achieving these purposes and needs in terms of effective and fiscally responsible expenditure of Federal funds.

Based upon the administrative record of this project, I make the certification prescribed by 49 U.S.C. § 44502 (b), that implementation of the preferred alternatives approved in this ROD are reasonably necessary for use in air commerce.

Therefore, under the authority delegated to me by the Administrator of the FAA, I find that the projects summarized in this ROD at Appendix B are reasonably supported, and for those projects I therefore direct that action be taken to carry out the agency actions discussed more fully in Section II of this Record, including:

A. Approval under existing or future FAA criteria of project eligibility for Federal grant-in-aid funds and/or Passenger Facility Charges, including the following elements:

1. Land Acquisition
2. Site Preparation
3. Runway, Taxiway, and Runway Safety Area Construction
4. Terminal and Other Landside Development
5. Certain POS-Installed Navigational Aids
6. Environmental Mitigation

B. Approval of a revised airport layout plan (ALP), based on determinations through the aeronautical study process regarding obstructions to navigable airspace, and that the agency does not object to the airport development proposal from an airspace perspective.

C. Approval for relocation/upgrade of the existing Airport Traffic Control Tower (ATCT), radars, and various navigational aids. I specifically reaffirm, in the context of the policy considerations set forth in this ROD, my April 4, 1997, approval of the SEA-TAC ATCT Siting Study. As demonstrated by that study, a replacement ATCT at SEA-TAC is required immediately, whether or not the other Master Plan Update development actions are approved.

D. The development of air traffic control and airspace management procedures to effect the safe and efficient movement of air traffic to and from the proposed new runway, including the development of a system for the routing of arriving and departing traffic and the design, establishment, and publication of standardized flight operating procedures, including instrument approach procedures and standard instrument departure procedures.

*Lawrence B. Andriesen*

Lawrence B. Andriesen  
Regional Administrator,  
Northwest Mountain Region

7-3-97  
Date

RIGHT OF APPEAL

This decision constitutes the Federal approval for the actions identified above and any subsequent actions approving a grant of Federal Funds to the Port of Seattle. Today's action is taken pursuant to 49 U.S.C. Subtitle VII, Parts A and B, and constitutes a Final Order of the Administrator, subject to review by the courts of appeals of the United States in accordance with the provisions of 49 U.S.C. § 46110.

## **APPENDIX A**

**TABLE 2-7**  
**Seattle-Tacoma International Airport**  
**Supplemental Environmental Impact Statement**

**MASTER PLAN UPDATE IMPROVEMENTS - PHASING**

<b>Project</b>	<b>Changes in Phasing or Projects Definition</b>
<b>New Parallel Runway and associated operational procedures and taxiways</b>	
Acquisition of land for the new parallel runway	1996-2000 As the runway moves to the 2nd phase, acquisition is now separately identified
Relocation of ASR and ASDE	1996-2000
Relocation of S.154/156th around 16X end	1996-2000 Not previously separately identified
Temporary construction interchange off SR-509 and SR-518	Previously assumed Not previously separately identified
Construction of the new parallel runway	1997-2004 First year of operation 2005
Extension of Runway 34R by 600 feet	2010
<b>Clearing and Grading For the Runway Safety Areas</b>	
Development of the RSA embankments	1996-2000
Relocation of S.154/156th around 16L and 16R RSAs	1996-2000 Not previously separately identified
<b>Terminal and Landside Improvements</b>	
<b>1996-2000 (Phase I)</b>	
Expansion of Concourse A, including expansion of Main Terminal at A	No Change - clarification of action
Improvements to the Main Terminal roadway and recirculation roads, including a partial connection to the South Access Roadway and a ramp roadway from the upper level roadway to the airport exit	No Change - clarification of action
Overhaul and/or replacement of the STS	No Change
Expansion of the main parking garage to the South, North and East	Phase II and III expansion of the main garage was moved to this phase.
Construct first phase parking lot north of SR 518 for employee use (3500 stalls).	Moved from Phase III (2006-2010) to Phase I (1996-2000)
Construction of the overnight aircraft parking apron	Not previously separately identified
Construction of the new air traffic control tower/TRACON	No Change
Removal of the displaced threshold on Runway 16L	Not previously separately identified
Relocation of Airborne Cargo due to new Control Tower	No Change
Expansion or redevelopment of the cargo facilities in the north cargo complex	No Change
Development of a new snow equipment storage facility between RPZ and 34L and 34X	No Change
Site preparation at SASA site for displaced facilities	No Change
Removal of the Northwest Hangar - replacement in SASA	No Change
Development of a ground support equipment location at SASA	Previously assumed, but not separately listed
Development of GA/Corporate aviation facilities in SASA or north airfield location	Previously listed as 2001-2005
Development of a new airport maintenance building and demolition of existing facility	Moved from Phase II (2001-2005) to Phase I (1996-2000)
Development of on-airport hotel	No Change
Development of the Des Moines Creek Technology Campus	No Change

**TABLE 2-7**

**Sea-Tac International Airport  
Supplemental Environmental Impact Statement**

**MASTER PLAN UPDATE IMPROVEMENTS PHASING**

<b>2001-2005 (Phase II)</b>	
Dual taxiway 34R	No Change
Improved access and circulation roadway improvements at the Main Terminal, provide upper roadway transit plaza at Main Terminal	No Change Plaza moved from Phase III (2006-2010) to Phase II (2001-2005)
Additional expansion of the main parking garage	No Change
Expansion of the north employee parking lot (North of SR518) to 6,000 stalls including improvements to the intersection of S. 154 <sup>th</sup> /24 <sup>th</sup> Ave. S.	Added intersections improvements to address this lot and the ramps associated with the North Unit Terminal at 24 <sup>th</sup> Ave. S. at SR 518
Construction of second phase of overnight apron	Was assumed completed in Phase I
Development of the first phase of the North Unit Terminal (south Pier), development of the ramps off SR-518 near 20 <sup>th</sup> Ave. S. and intersection improvements to S. 160th St. to address surface transportation issues associated with the closure of S. 170th Street to through traffic.	Moved from Phase III (2006-2010) to Phase II (2001-2005, identified the ramps separately, and added surface transportation improvements at S. 160 <sup>th</sup> Street/International Blvd.
Construct first phase of the North Unit Terminal parking structure for public and rental cars	Moved from Phase I (1996-2000) to Phase II (2001-2005)
Development of the North Unit Terminal Roadways	Moved from Phase III (2006-2010) to Phase II (2001-2005)
Interchange near 20 <sup>th</sup> /SR-518 for access to cargo complex	Previously included in the project above, now for clarity, separately identified
Relocate ARFF facility to north of the North Unit Terminal	Moved from Phase III (2006-2010) to Phase II (2001-2005)
Additional improvements to the South Access Roadway connector	Moved from Phase III (2006-2010) to Phase II (2001-2005)
Relocation of the United Maintenance complex to SASA	Not previously separately listed
Continued expansion of the north cargo facilities	No Change
<b>2006-2010 (Phase III)</b>	
Expansion of North Unit Terminal (North Pier)	First phase is now in Phase II
Additional taxiway exists on 16L/34R	Moved from Phase IV(2011-2020) to Phase III (2006-2010)
Complete connectors to South Access Roadway (to eventual SR 509 Extension and South Access)	Now separately identified
Additional expansion of main parking garage	New Project
Additional Expansion of north employee lot to 6,700 stalls	No Change
Further expansion or redevelopment of north cargo complex	No Change
Expand North Unit Terminal parking structure for public parking	No Change
<b>2011-2020 (Phase IV)</b>	
Development as needed to accommodate growth in demand	No change
SR 509 Extension/South Access	Not previously listed / part of Do-Nothing and With Project

## **APPENDIX B**

GARY LOCKE  
Governor



STATE OF WASHINGTON  
OFFICE OF THE GOVERNOR

P.O. Box 40002 • Olympia, Washington 98504-0002 • (360) 753-6780 • TTY/TDD (360) 753-6466

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


The Honorable Rodney Slater, Secretary  
June 30, 1997  
Page 3

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

AR 013153



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600  
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

REC'D ANM-610  
PLAN, PGM, & CAP DR

DEC 23 1996

ANM-610\_\_\_\_\_

December 20, 1996

Mr. Dennis Ossenkop  
Federal Aviation Administration  
Seattle Airports District Office  
1601 Lind Avenue SW  
Renton, Washington 98055-4056

Dear Mr. Ossenkop:

I have been delegated the authority by Governor Mike Lowry to respond on behalf of the State of Washington to the August 12, 1996 letter from Ms. Gina Marie Lindsey. In that letter, the Port of Seattle requested a letter of certification concerning air and water quality standards applicable to the proposed runway project at the Sea-Tac airport. As you are aware, 49 U.S.C. 47101 et seq. (formerly known as the Airport and Airway Improvement Act) requires a state to provide reasonable assurance that certain types of FAA-funded projects will be located, designed, constructed and operated in compliance with applicable air and water quality standards.

The Washington Department of Ecology has reviewed the information contained in the Final 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 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.
3. The Port of Seattle will establish and implement a process for monitoring construction activities to ensure compliance with applicable air and water quality standards. As part of this process, the Port of Seattle will perform the following activities after Ecology review and comment:



AR 013154

- (a) prepare a new runway construction sediment and erosion control plan that adheres to 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 that 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 a MTCA Agreed Order which will be finalized after review of public comments. The purposes of this evaluation include:
- (a) determining ground water flow characteristics and identifying fate and transport mechanisms;
  - (b) determining 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.

It is also my expectation 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, control measures and permitting actions involving air and water quality at Sea-Tac Airport. In particular, the proposed project should 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 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 my staff to implement and enforce applicable air and water quality requirements in a manner that protects the health of Washington's citizens and the environment.

Mr. Dennis Ossenkop  
December 20, 1996  
Page 3

If you have questions regarding this letter, please contact Mr. David Bradley (360/407-6907) or Ms. Janet Thompson (206/649-7128).

Sincerely,

*Mary Riveland*

Mary Riveland  
Director

cc: Gina Marie Lindsey, Port of Seattle

AR 013156

## **APPENDIX C**

## ASSESSMENT OF RUNWAY LENGTH AND LOCATION FOR THE THIRD PARALLEL RUNWAY

June, 1997

As is shown in the Final EIS and Final Supplemental EIS, developing an air carrier Third Runway is the only prudent and reasonable alternative to the need identified: "Improve the poor weather airfield operating capability in a manner that accommodates aircraft activity with an acceptable level of delay". A detailed review of the alternatives are discussed in the Flight Plan Final EIS; the Major Supplemental Airport Study; and Chapter II of *Final Environmental Impact Statement for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport* dated February, 1996, and Chapter 3 of the *Final Supplemental Environmental Impact Statement for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport* dated May 13, 1997. In addressing ways to avoid or minimize impacts to wetlands, the location of the Third Runway was evaluated. The key to placing the runway rests with:

- its westerly separation from the existing runway system;
- the relative siting of the north end of the new runway; and
- the length of the new runway.

As was shown in the Final EIS/Supplemental EIS, a runway with the closest separation to the existing runway would avoid and/or minimize impacts to wetlands.<sup>1</sup> However, as was also shown, development of a runway with a separation of less than 2,500 feet would not enable two arrival streams during poor weather conditions due to the requirement of increased lateral spacing when pilots are relying on their instruments and to address the resulting wake vortex (wind turbulence) caused by aircraft landings. This operation is effectively the existing condition and, thus, poor weather arrival delay would not be reduced. Two parallel runways separated by less than 2,500 feet apart require that pilots be able to visually confirm that their aircraft are on the proper approach and to ensure that the wake vortices from aircraft ahead of them do not create unsafe conditions. Technologies do not exist to eliminate the wake vortex constraint nor are any envisioned in the short or near-term.

The development of a Third Runway at a location 2,500 feet west of existing Runway 16L/34R would place it generally along 12th Avenue S. At this location, with the requisite FAA design guidelines (reflecting mandated safety areas) requires that the runway be no longer than about 8,500 feet. A longer runway length would affect South 188th Street (to the south) or SR 518 (to the north). SR 509 bounds the site on the west.

In achieving the greatest operational benefit relative to the cost of new runway development, two conditions were considered: 1) all runway ends aligned on the north end, and 2) the new Third

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<sup>1</sup> A separation of greater than 2,500 feet would affect SR 509 on the west and could result in the impact of a 30 acre high quality wetland, west of SR 509 north of South 176th Street.

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Runway north threshold staggered south. For operational reasons, the stagger option is not practicable. Where a stagger exists, greater coordination is required between the arrival streams and departures. As a result, during about 7% of the weather conditions, a staggered threshold would produce inefficiencies. This added complexity in air traffic operations would occur at times when the operations are at their highest level and during poor weather, a time when air traffic controllers are at their highest work load.

As is noted in this paper, an 8,500 foot long runway provides the maximum runway length possible within the land envelope west of the existing airfield, without disruption of S. 188th Street or SR 518/SR 509. A new runway with a length shorter than 8,500 feet would create inefficiencies in air traffic operations relative to avoiding 0.86 acre of low value, fragmented, and isolated wetlands.<sup>7</sup> As continued evolution of the aviation industry post deregulation, airlines have struggled to achieve a financial profit, creating significant difficulties in predicting activity levels and air service patterns. These uncertainties are expected to remain with the industry in the near term as air travel evolves in a global economy. The development of a new runway at Sea-Tac Airport represents a critical investment in aviation facilities to address the poor weather operating constraint. As a result, to minimize the risk that other future improvements will be needed, and probable impacts on natural resources such as wetlands, the capability of the new facility should be maximized.

A staggered threshold associated with a length less than 8,500 feet on the Third Runway would reduce the operating capability of the new runway when air traffic control cannot maintain visual separation between an arriving and departing aircraft. The FAA Air Traffic Control Manual, FAA Order 7110.65J, Section 5-8-5 states that in order to conduct simultaneous operations between an aircraft departing on the near runway (existing runway 16L/34R) and an aircraft on final approach to another staggered parallel runway (the new runway), that "The runway centerlines separation exceeds 2,500 feet by at least 100 feet for each 500 feet the landing thresholds are staggered". The need for the increased spacing is primarily due to the procedures used to protect the separations between the arriving aircraft and the departing aircraft in the event the arriving aircraft executes an aborted landing (referred to as a missed approach procedure).

Another issue involved with runway stagger is wake vortex. Wake vortex is the turbulence created by the wing tips of an aircraft as the wing of the aircraft creates lift. It is a powerful phenomena resembling small horizontal tornadoes and has been a key element in determining required aircraft and runway separations. While the 2,500 foot separation proposed for the Third Runway meets the requirement for avoidance of wake vortices, aligned thresholds provide an added safety buffer over a staggered threshold. This is due to the fact that aircraft landing on a staggered Third Runway would be touching down in front of a potential departure on the existing runway. However Runway 16R is located at a distance of 1,700 feet from the new runway. As a result, departures queuing for takeoff on this runway would be required to wait until the wake vortex dissipates. Alternatively, arriving aircraft to the new runway could be slowed to allow for a "gap" for the departure.

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<sup>7</sup> Impacts associated with the Master Plan Update improvements are to small (<0.5 acre) wetlands that are isolated from other significant aquatic or semi-aquatic habitat, and occur in a landscape fragmented by streets, commercial, residential, or airport development. Therefore, for most functions, the wetlands were not considered to provide high function.



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While the primary purpose of the Third Runway is to enable two arrival streams during poor weather, there are times when the Third Runway will be used for departures, as was evaluated in the Final EIS/Supplemental EIS. Concerns with the north thresholds exist due to the dominance of the south flow operation, which occurs about 65% of the year. If the thresholds are aligned on the north, at a separation of 2,500 feet, arrivals to the new runway (16X) and departures on existing Runway 16L can occur independently. However, if the 16X threshold is staggered, separations between the 16X arrival and the 16L departure must be maintained when the air traffic controllers cannot provide visual separations, which occurs about 18% the time south flow occurs. This could be avoided by moving the runway an additional 100 feet west for every 500 feet of threshold stagger. However, this 100 foot movement further west would require either a shortening of the runway on the south (to about 5000 feet) or the relocation of SR 509.

In addition, the alignment of the thresholds also could affect the delay between departing aircraft. For instance, if the thresholds are aligned, a light aircraft can be released for departure on Runway 16X about 2 minutes after a heavy departs from Runway 16L. This time would increase to 3 minute separation if the thresholds are staggered.

In the planning stages for the Third Runway, various groups were requested to provide technical input on the layout of the runway. The recommendation of the Chief Pilots was that runway lengths of less than 8,000 feet should not be considered and that 8,500 feet was their preferred option. One of the primary concerns expressed by the Chief Pilots was that the percentage of aircraft projected to be able to use various runway lengths was based solely on performance data listed in the operations manuals for the various aircraft types. They noted that the performance data is developed based on the maximum operating capability of the aircraft and that pilots prefer to avoid operating at maximum limits where other options are available.

The Chief Pilots further suggested that the operational benefits of shorter runway lengths could be significantly less than indicated given that pilots would prefer to use the longer existing runway. Although the FAA prescribes the rules by which pilots and air traffic controllers must operate, the pilot is given the ultimate authority and responsibility for the safety of operations. If a pilot is not comfortable with the distance available to land on the runway the air traffic controller assigns, it is the pilot's discretion to reject the controller's choice and request the longer runway. The frequency with which this occurs is referred to as the "pilot rejection rate".

Another factor pointed to by the Chief Pilots was the increased safety margin offered by the 8,500 foot length. In the event of an unusual circumstance, additional runway would be available for an arriving aircraft to continue past its normal landing length or for a departing aircraft reject the takeoff and stay on the ground. This is especially important given that the runway is intended to be used primarily for arrivals during poor weather conditions and when the pavement is most likely to be wet.

The input from the Chief Pilots was further substantiated by input from the Air Transport Association and FAA Air Traffic Control supporting an 8,500 foot runway. FAA Air Traffic Control stated that "...a runway in excess of 8,000 feet allows for the operation of most category aircraft. Shorter distance will inhibit our flexibility and restrict operations which detracts from the runway utilization". Restated, shorter length runways would restrict the type of aircraft that can

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use the runway. In turn, this would reduce runway efficiency by forcing controllers to sort and sequence aircraft to the appropriate runways rather than allowing the aircraft to flow directly to nearest runway without regard to size. The FAA Air Traffic letter went on to state that "Our desire is to have the longest runway feasible with no less than the 8,500 feet...". The letters from each of the organizations are attached.

Other issues that were considered by the Port that pertain to the practicability of the Third Runway length include:

- The Master Plan recommended that, in the event that a shorter runway is built, that protections be put in place to enable extension of the new runway to 8,500 foot at some future time. The overall cost to extend a shorter runway at a future date will be higher due to cost escalation, re-mobilization of equipment, and the additional process involved in seeking appropriate approvals.
- By being able to accommodate virtually all aircraft, the 8,500 foot length provides greater flexibility for landing aircraft in the event one of the other runways is closed for either an emergency or repair. Currently, when these situations occur in the course of a normal day, the airport is restricted to the use of one runway for arrivals and departures severely impacting the operations and capacity of the airport.
- Currently, major rehabilitation to the existing runways is conducted at night to avoid disruption to the operation of the Airport during the day. The 8,500 foot length would allow for longer duration closures for daytime construction on the other runways when major rehabilitation is required. This would avoid costlier nighttime construction due to more expensive materials, specialized equipment, equipment mobilization and logistics, and safety procedures. Nighttime construction is estimated to be about three times more expensive.

To examine specific wetlands which might be avoided, consideration was given to shortening the runway from either the north or from the south. With the thresholds aligned on the north, the only manner to avoid or minimize impacts to wetlands would require the runway to be shortened from the south. Avoidance of wetlands #25 and 26 (0.06 and 0.02 acres respectively) would require a runway length of 6,750 feet. The reduction in landing length would result in the runway being useable by less than 97% of the future aircraft for landing or less than 82% for departure. This reduction in operating capability is not practicable. The wetlands that would be avoided are fragmented and of low values relative to serve stormwater storage, groundwater recharge, and water quality enhancement. Thus, with the thresholds aligned, the 8,500 foot long runway is the only practicable runway length.

In evaluating avoidance of wetlands on the north end of the site, several options were considered:

- Shorten by 400 feet (8,100 feet) - avoidance of wetlands #9, 11, 12, 13 (0.86 acres)
- Shorten by 700 feet (7,800 feet) - avoidance of wetlands #9, 11, 12, 13, 14 (1.05 acres)
- Shorten by 1,500 feet (7,000 feet)- avoidance of wetlands #9, 11, 12, 13, 14, 15 (1.33 acres)

Each of these options would result in a runway stagger on the north end, and thus would create operational inefficiencies that are not practicable.

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As documented in Final EIS Volume 3 (Appendix H-B) and the Final Supplemental EIS (Section 5-5) these wetlands have low values and function primarily for stormwater storage, floodwater attenuation, groundwater discharge, water quality enhancement, and wildlife foraging opportunities. The proposed mitigation plan calls for replacing the stormwater storage functions in the Master Plan Update stormwater management facilities. All of these functions will be mitigated at the wetland mitigation site in Auburn with values greater than what occurs in the Sea-Tac Airport area.

## **APPENDIX D**

**AR 013163**

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## APPENDIX D

### COMMENTS ON THE FINAL SUPPLEMENTAL EIS

This appendix of the Record of Decision (ROD) summarizes the comments received concerning the Final Supplemental Environmental Impact Statement for Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport dated May 13, 1997, including the Final Conformity Analysis. Letters 1 through 6 below reflect comments received issues other than air quality. Appendix E contains the response to comments concerning air quality and the final conformity analysis.

1. **Henry Frause**, 411 SW 186th, Normandy Park, WA 9816 May 21, 1997

1. "The following comments are submitted in response to the subject 'Ground Water Study'.

**Response:** The issue of groundwater contamination has been thoroughly discussed in the Final EIS (Chapter IV, Section 10 and the applicable appendices) and Final Supplemental EIS (Section 5-7). See also Section VI - E of the Record of Decision (ROD) To date no additional authoritative information has been produced that conflicts with the analysis in these documents.

2. "The FSEIS along with the Final -Rule summary cannot exist in any Supreme Court decisions without a Federal Docket No. to show full continuity of the FEIS."

**Response:** The FAA only assigns a docket number in rulemaking cases or adjudication cases, which at this time are not applicable to the processing of a Draft/Final EIS or Draft/Final Supplemental.

3. "How do you justify the fact that you are now participating in an illegal marriage known as a Municipal Corporation?"

**Response:** The of a municipal corporation raised by this commentor has been addressed in the Final EIS (see response to comments in Appendix R, responses R-2-1 and R-2-2) and the Final Supplemental EIS (Appendix F, response to comment 1-J).

2. **John Hayden, Boeing Company**, P.O. Box 3703 MS 14-49, Seattle, 98124-2207 May 23, 1997

- Agree with conclusions of SEIS

**Response:** Comment acknowledged.

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3. **Margaret & Glen Farrell, 21220 - 4th Place South, Des Moines, WA 98198 June 16, 1997**

1. "Why is FAA and the Port of Seattle still ignoring the questions and comments of the people who are most affected by the Port's operation of Sea-Tac Airport?"

**Response:** All applicable comments have been responded to in the Final EIS and the Final Supplemental EIS. Three volumes (Volumes 5 through 7) of the seven volume Final EIS present the public and agency comments, while Appendix R (Volume 4) presents the responses to the comments.

2. "... expanding operations at Sea-Tac can only make air and water quality much more worse than ever?"

**Response:** . As is shown in the Final EIS and Final Supplemental EIS, the proposed improvements are not anticipated to have a significant adverse impact on air quality or water quality. Under the Clean Air Act General Conformity Regulations, de minimis has been demonstrated. See also letters numbered A-7 through A-9 from the U.S EPA, Puget Sound Air Pollution Control Agency (PSAPCA), and Department of Ecology concerning the adequacy of the conformity analysis. Mitigation for significant adverse impacts is proposed.

3. "How can we find out how a wetland be moved? Who made that determination?"

**Response:** The proposed wetland mitigation does not call for actual "movement" of the wetlands. Instead, wetland functions (such as wildlife habitat) which conflict with safe aircraft operations will be developed at the Auburn site. Hydrological functions will be retained in the airport area. Approval of the wetland mitigation ultimately will rest with the U.S. Army Corps of Engineers under the Section 404 permitting process.

4. "Will our drinking water be safe from airport produced contaminates"

**Response:** No adverse impacts to drinking water or water quality are expected.

3. **Cutler & Stanfield, Airport Communities Coalition (ACC), June 19, 1997**

1. "inaccurate and implausible assumptions about the number of operations and passengers"  
(Pg 2)

**Response:** No specific comments were submitted with these June 20th comments concerning the forecast of passengers and operations, with the exception of the attachment prepared by Dr. Clifford Winston. Cutler & Stanfield, and their technical experts have continued to allege that a new runway will result in increased demand for air travel. However, they have been unable to provide a plausible argument for how natural demand (based on income, population and air fares as defined by the Master Plan) differs from demand that would arise from an additional runway. Based on this information, it appears that there is a professional difference of opinion concerning aviation forecasts; the FAA and the Port stand by the forecasts prepared for the Draft/Final Supplemental EIS. While the specific forecast suggested by Dr. Winston

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was not examined, Appendix D of the Final Supplemental EIS and Appendix R of the Final EIS contain an analysis of alternate forecasts.

As was noted in the Final EIS and Final Supplemental EIS, an unconstrained level of demand was identified based on the variables that stimulate demand: population, income and air fares. This unconstrained level reflects the demand that could arise regardless of the facilities that are available. Thus, the addition of a runway or any other facility would not alter the quantity of unconstrained demand. In contrast, reflecting that the existing airport system at some level (quantified as 460,000 annual operations) will impose a constraint on the ability to serve demand, a constrained forecast was prepared. A constrained demand can equal unconstrained demand until the point at which the airport facilities are no longer capable of satisfying the demand level. As was shown in the Final EIS and re-validated for the Final Supplemental EIS, the existing facilities would not be able to accommodate forecast aircraft operations above 460,000 annual operations. Therefore, when demand for air travel exceeds the capability of the constraint (the unconstrained demand would be greater than the constrained demand), demand would not be satisfied by existing facilities. Because the activity was examined in this fashion, the forecast did not underestimate the number of operations that would occur due to the construction of the Third Runway.

The regression models used by the Port to forecast future passenger and operations demand, in Winston's words, "do a good job of explaining the present by the past." Thus, these models provide a realistic projection of future demand based on the same relevant factors that explain historical activity levels. By his own admission, Winston's cross-section model does not explain the present or the past. Thus, it is questionable how the model would be accurate in predicting future demand. The addition of independent variables to a model does not increase the  $R^2$  value (ratio of correlation). The  $R^2$  value is increased only when the variables considered strengthen the correlation. Winston's demand model includes independent variables for the number of runways and connecting hub status, if they prove anything, they prove that airports with higher demand build adequate facilities to serve the projected demand. As a result, the act of building a runway does not cause demand to increase, as the runway does not affect population, income or air fares.

Appendix F of the Final Supplemental EIS and Appendix R (Volume 2) of the Final EIS (Volume 4) respond to earlier comments of the Airport Communities Coalition concerning the proposed project and forecast demand issues.

2. "FSEIS continues to rely on the data and analysis prepared for the Final EIS which are out-of-date and largely irrelevant" in light of new forecasts, changes in expansion plan, implicit changes in purpose and need. (Pg 3)

**Response:** As is noted in the Final Supplemental EIS, the purpose of that report is to analyze the impact of new aviation activity forecasts and other new data that had arisen between issuance of the Final EIS in February 1996 and issuance of the Final Supplemental EIS in May 1997. Included in the Final Supplemental EIS are changes in the timing of proposed facilities based on the higher level of demand and slight improvements that had been identified in the Master Plan Update. No changes in project purpose or need were identified.

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3. FSEIS “does not provide sufficient detail about each of the actions to be undertaken..”

**Response:** No comments have been received seeking clarification or elaboration concerning the proposed Master Plan Update improvements, other than concerning construction of the Third Runway. As is noted in the EIS, specific construction traffic levels and routes will not be known until a contractor(s) is selected. Thus, to account for worst-case conditions, peak traffic levels were considered for all possible haul routes. It is unclear what additional information is desired. The commentor notes that impacts from the Des Moines Creek route of a conveyor belt was not assessed relative to water quality impacts. The Final EIS and Final Supplemental EIS assess the impact of a truck haul construction process; if a conveyor belt transport alternative along the Des Moines Creek corridor were pursued, additional environmental analysis would be conducted.

4. Commentor indicated that the FSEIS does not examine reasonable alternatives

**Response:** All reasonable and prudent alternatives have been examined, as documented in the Flight Plan Study, the Major Supplemental Airport Study, the Expert Panel process, the Master Plan Update and the Final EIS/Final Supplemental EIS.

5. Commentor indicated that the FSEIS does not consider reasonable mitigation.

**Response:** The Final EIS and Final Supplemental EIS contain appropriate mitigation for all significant adverse environmental impacts.

6. Commentor indicated that the FSEIS fails to describe or analyze properly the significant environmental impacts:

- Destructive effects from haul
- Insufficient detail concerning construction
- Mitigation of construction impacts
- Understates the extent actions would violate GMA
- Noise impacts rely on 1994 for existing conditions
- Inadequate analysis of air quality impacts
- Surface transportation analysis is flawed: 1) project impact, 2) inaccurate freeway operation conditions 3) unfounded assumptions concerning number of improvements to the regional system
- Inadequate evaluation of effects on housing stock
- Ignores existence of suitable wetland mitigation in basin
- Does not adequately consider water quality impacts

**Response:** As is noted in the EIS, specific construction traffic levels and routes will not be known until a contractor(s) is selected. Thus, to account for worst-case conditions, peak traffic levels were considered for all possible haul routes. Final EIS, Chapter IV, Section 23 and Final Supplemental EIS Section 5-4 presents the impact of two construction scenarios: maximized on-site fill usage and maximized off-site fill usage.



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The Final EIS and Final Supplemental EIS document the appropriate and detailed evaluation of noise, land use, air quality surface transportation, social and induced socio-economic impacts, wetland impacts, and water quality in accordance with the National Environmental Policy Act and State Environmental Policy Act.

7. Commentor indicated that the FSEIS postpones assessment of impacts beyond 2010.

**Response:** As is noted in the Final Supplemental EIS, forecasting demand beyond year 2010 presents such uncertainties concerning activity, and the context in which the Airport will operate, that these projections are not capable of being meaningfully evaluated. With the exception of aircraft noise exposure impacts, Federal and state regulations will require that significant adverse impacts not occur in future time frames. As is shown in Appendix D of the Final Supplemental EIS, while emissions are not reasonably foreseeable beyond 2010, the generalized analysis indicates that emissions post 2010 would not likely result in significant adverse impact. Recognizing the issues associated with aircraft noise, the FAA is requiring a future assessment of noise, as documented in Section V.D of the ROD.

4. **Julia Patterson, State Senate, P.O. Box 40482, Olympia, WA, June 23, 1997**

1. "It did not examine the real impacts on the local and regional roads, on schools and on the community of thousands of daily truck trips transporting millions of cubic yards of fill dirt six days a week for at least five years."

**Response:** Construction impacts were evaluated based on the level of information available at this time, as contractor(s) have not been selected for the Master Plan Update improvements. As a result, a worst-case evaluation was performed for five periods of the day (AM peak, PM peak, afternoon, evening, and night) based on peak hour fill transport conditions along the possible haul routes.

2. "The impacts of noise on the community are not completely analyzed. It is difficult for even a lay person to swallow the idea that although operations will increase, that noise from the airport will continue to decrease."

**Response:** Noise impacts were evaluated using the required methods as well as with use of alternative noise measures (SEL and Time Above). In accordance with the Airport Noise and Capacity Act of 1990, aircraft noise exposure is expected to decrease as the aircraft fleet transitions to Stage 3 aircraft engines.

3. "It is also difficult to accept that with increasing operations the number of major air pollutants will decrease, that water quality will not be affected by a large increase in stormwater runoff resulting from the addition of many acres of new paved, impervious surfaces. The Final SEIS ignores completely the concerns of the communities of the loss of wetlands and the effect on Des Moines and Miller Creek drainage basin."

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**Response:** Impacts to water quality, stormwater and wetlands were evaluated in accordance with standard methodologies as required by the National Environmental Policy Act and State Environmental Policy Act.

4. "I am extremely concerned that the Final SEIS did not address reasonable mitigation for the affected communities. The state of Washington recently sponsored and funded a year-long study of mitigation measures...."

**Response:** Mitigation was evaluated for all significant adverse impacts. See Final Supplemental EIS, Appendix F, Response to comment 4-J.

5. **Len Oebser, Regional Commission on Airport Affairs (RCAA), June 23, 1997**

1. "The comments of the Regional Commission on Airport Affairs were misrepresented in Appendix F, FSEIS, as being only the personal comments of Len Oebser. Authorship should have been attributed to the organization...." (Pg. 3)

**Response:** All comments received on the Draft EIS and Draft Supplemental EIS were indexed by the party transmitting the letter and organization, if applicable (see Final EIS Appendix R, Table R-1 and Final Supplemental EIS, Appendix F, Table F-2). The actual summary of the comment and response (in FEIS Appendix R and FSEIS Appendix F) noted the name of the individual commentor to enable cross-reference of the letter. In FSEIS Appendix F, a numerical index followed the name [i.e., Mr. Oebser (55RCAA,2-8)] to indicate the location within the letter. In many cases, the organization was noted (i.e., Mr. Oebser submitted comments on behalf of RCAA).

2. The commentor expressed concern with the absence of an index to the Final EIS. (3-4)

**Response:** An index was provided in the Draft EIS, Final EIS, and Final Supplemental EIS. It appears that this commentor believed that this index was not adequate and that an index to the comments should have been prepared. Comment noted.

3. Commentor indicated that the FSEIS did not respond to comments. (Pg 4)

**Response:** This comment did not note which comment did not receive a response. Later comments were more specific and specific responses are enclosed.

4. Commentor indicated that the FSEIS failed to respond to the thrust of comment. (Pg 4)

**Response:** This comment failed to note what specific issue did not receive a response. Later comments were more specific and specific responses are enclosed.

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5. Commenter noted that the RCAA comments were not listed in order of their presentation. (Page 4)

**Response:** Comment noted. Responses were presented in topic order, for all comments received. Thus, in some cases the responses were not in the order in which an individual commented.

6. Commenter noted that technical material and bibliographies were not reproduced in the Final EIS/Final Supplemental EIS and that technical reports were not available to the public. (Pages 4, 8, 44)

**Response:** It is not possible to include all documents in the Final EIS or Supplemental EIS that were relied upon in preparing the technical analysis. This is particularly true of a study process which began in the late 1980s, and which is culminating in the Master Plan Update EIS process. As a result, it is an accepted industry and legal standard to incorporate by reference documents, such that individuals questioning the underlying data have an opportunity to review the references. All technical materials which were used in preparation of the Draft EIS/Final EIS and Draft/Final Supplemental EIS were available for public review at the FAA offices in Renton, Washington. A complete set of the reference material was provided to the Airport Communities Coalition. While the documents did not contain a bibliography, each chapter and section contained footnotes citing specific reference material. Throughout the 1996 Final EIS were notations to the use of the Preliminary Engineering Study (i.e., *Seattle-Tacoma International Airport Third Dependent Runway Preliminary Engineering Study*, HNTB, 1994). The Port Financing Plan and Net Present Value Evaluation (prepared in February 1997) were included in the reference material for the Final Supplemental EIS. These documents were available to the public, as evidenced by the references to these documents in the ACC's comments on the Draft Supplemental EIS (see Final Supplemental EIS, Volume 3, Appendix G, pages G-718 through G-721).

The Port of Seattle has submitted the referenced wetland mitigation permit and stream relocation plan documents to the U.S. Army Corps of Engineers (COE) as part of the Section 404 permit application in December 1996. The COE requested some formatting revisions, which have recently been completed. The COE is expected to issue public notice of the permit application in July 1997, at which time the final permit application material will be available for public review.

7. Commenter expressed concerns with the practice of presenting projections as hard numbers instead of a range. (Page 6)

**Response:** The Final EIS and Final Supplemental EIS note that the projections reflect a forecast of future conditions. To enable the consideration of environmental impacts, a specific forecast level of activity must be used. Thus, the standard practice for considering impacts is through the use of a specific activity level representing the most realistic projection of future activity.

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8. Commentor expressed concerns with the lack of mitigation commitment. (Page 6)

**Response:** The purpose of an EIS is to present probable environmental impacts and possible mitigation to address the significant adverse impacts. The Sea-Tac Airport Master Plan Final EIS and Final Supplemental EIS were prepared in this approach. This Record of Decision contains the appropriate mitigation commitments.

9. Commentor requested peak hour and daily construction truck trip data. (Page 6)

**Response:** As is noted in the EIS, specific construction traffic levels and routes will not be known until a contractor(s) is selected. Thus, to account for worst-case conditions, peak traffic levels were considered for all possible haul routes. The Final EIS and Final Supplemental EIS present peak hour truck conditions in contrast to five daily time periods (AM peak, PM peak, afternoon, evening and night). These enable a comparison of possible traffic conditions relative to total traffic on all possible haul routes. Daily traffic levels were not calculated as this level would not provide meaningful comparison to traffic conditions.

10. Commentor requested a map of construction noise impacts. (Page 7)

**Response:** While construction noise impacts were discussed in Chapter IV, section 23 of the Final EIS and Section 5-4 of the Final Supplemental EIS, maps were not prepared.

11. Commentor requested a construction schedule, hours of construction, and fill traffic routes. (Pg 7, 10)

**Response:** As is noted in the EIS, specific construction traffic levels and routes will not be known until a contractor(s) is selected. It is anticipated that permit applications will note the contractors desired haul routes and time of operations. Thus, to account for worst-case conditions, peak traffic levels were considered for all possible haul routes. Specifically, the Final EIS and Final Supplemental EIS examined peak hour construction traffic levels during five hours of the day (AM Peak, PM Peak, afternoon, evening and night). As stated in these documents, 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 construction periods, haul could occur more than 16 hours a day.

12. Commentor requested use of new EPA air quality standards. (7,11)

**Response:** In late 1996, the U.S. EPA announced its proposed rulemaking for new ambient air quality standards for Ozone and Particulate Matter. As is noted in the Final Supplemental EIS, Appendix F, as these standards have not been formally adopted by EPA and have not been included in a State Implementation Plan, they are not applicable for consideration as part of this Supplemental EIS or the air conformity analysis.

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13. Commentor requested quantification of social-impact data. (7)

**Response:** The Final EIS and Supplemental EIS present the social impacts from construction activity. It is not clear from the comment as to what specific social data is requested for quantification.

14. Commentor requested scientific basis for use of the 65 DNL and indicated that noise outside the 65 DNL should be considered. (8, 31)

**Response:** Use of the 65 DNL noise contour is required by FAA Orders implementing the National Environmental Policy Act. This noise measure, as well as several metrics which are not required by FAA guidance were presented in the Final EIS and Final Supplemental EIS. The 65 DNL noise contour is based on the FAR Part 150 Land Use Compatibility guidelines which were defined after extensive consideration by various agencies (i.e. EPA, HUD, FAA, etc.) of the impact of aircraft noise.

The commentor noted "It is also not true, as the Response suggests, that noise outside the 65 LDN contour must be ignored for FAA purposes." Recognizing that residents located outside the 65 DNL experience noise exposure concerns, the Final EIS and Final Supplemental EIS examined noise through 60 DNL and examined conditions at noise sensitive facilities less than 60 DNL.

15. Commentor requested health impacts of noise. (8, 15)

**Response:** The Final EIS (Chapter IV, section 7) contains a discussion of the impact on human health of aircraft noise exposure. The submittal of the bibliography of alternative noise source data does not conflict with the information presented in this section of the Final EIS.

16. Commentor requested copies of noise mitigation interlocal agreements. (8)

**Response:** No such interlocals exist at this time.

17. Commentor indicated that noise exposure contours from other airports should be presented and respective impacts combined. (8)

**Response:** Response to comment 7-O in Appendix F of the Final Supplemental EIS addresses the noise from Boeing Field. As the noise exposure impacts would not combine to create a 65 DNL or greater noise contour, noise contours from Boeing Field or other airports were not included.

18. Commentor requested inclusion of a Port agreement with the Highline School District to insulate Highline Schools. (8)

**Response:** Port Resolution 3212 (and reaffirmed in Resolution 3245) contain the Port's commitment to work with the Highline School District to insulate noise affected schools (see

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Final Supplemental EIS, Appendix F, Page F-56). While no such agreement has been developed, the Port and the Highline District have initiated discussions concerning the insulation of schools.

19. "Is local residential construction typically 'cold weather' construction." A request was also made to supply more information concerning the character of the homes and questioned why the document referenced a cold climate construction. (8, 21)

**Response:** The basic type of current construction in the Pacific Northwest is generally considered cold climate construction. This is in contrast to the types of construction found in the southern portions of the country, which contain less insulation and use single pane windows or jalousie windows. As is noted in FSEIS Appendix F, homes in the airport area that are wood frame have been found to provide 10-15 dBA attenuation of noise, without sound insulation. This reference was included in the EIS to provide clarity as to the natural sound attenuation provided by structures in the area. No further data is warranted, as regardless of the types of residential construction, the Port has committed to insulate single family residential structures.

20. "4-6 asks for specific discussion of Miller Creek" and "4-9 Lost-opportunity costs should be discussed." (8)

**Response:** All appropriate discussions of Miller Creek are provided in the Final EIS (Chapter IV, Sections 10, 11, 12 and 16) and Final Supplemental EIS (Section 5-5). Lost opportunity costs are not relevant to information disclosed in an EIS.

21. Commentor requested a contingency plan "should construction money for the third runway not be available at the hoped-for time." (9)

**Response:** The resulting impact of a lack of funding would be a Do-Nothing condition, which has been thoroughly evaluated in the Final EIS/Final Supplemental EIS.

22. Commentor questioned if fill hauling will be accomplished by trucks only or truck-trailer combinations. (10)

**Response:** It is anticipated that both types of equipment will be used.

23. Commentor asked if there is no impact from truck noise if there is a pre-existent aircraft noise. (10)

**Response:** Based on the logarithmic properties of noise discussed in the Final EIS, the cumulative impact of construction noise added to aircraft noise is not expected to result in a significant adverse impact. These impacts are not expected to be significant because residential areas near the embankment receive significant aircraft operating noise. As a result, the cumulative impact would not result in a significant change in noise.

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24. Commentor requested information on aircraft particulate emissions. (11)

**Response:** Response to comment 6-G in Appendix F of the Final Supplemental EIS addresses the issue of the evaluation of particulate emissions. Final Supplemental EIS Appendix C-2 presents the emissions inventory for PM<sub>10</sub> emissions. Because PM<sub>10</sub> concentrations have not been measured to approach or exceed ambient air quality standards in the Airport area, the air agencies (US EPA, PSAPCA, and Department of Ecology) agreed that dispersion modeling for particulates was not warranted. To evaluate construction conditions, a dispersion analysis was conducted, as presented in the Final EIS (Chapter IV, section 23) and the Final Supplemental EIS (Section 5-4).

25. Commentor requested authority for delegation of governor's certificate to Department of Ecology.(12)

**Response:** On June 30, 1997 Governor Locke issued a new governor's certificate reflecting the State's review of the Final Supplemental EIS. This new letter supersedes the earlier letter signed by the Director of the Department of Ecology.

26. Commentor requested SEL contours.(12)

**Response:** Final EIS Appendix C contains SEL contours for the five dominant aircraft types at Sea-Tac Airport. In addition, SEL data is presented in grid point tabular form in Appendix C of the Final EIS and Appendix C-3 of the Final Supplemental EIS.

27. Commentor requested use of INM 5.1, preparation of contours for 1996, and authority for response 7-P. (12, 13)

**Response:** See response to comment 7-P of the Final Supplemental EIS concerning the use of the model. With FAA guidance, Landrum & Brown (the consultant that prepared the EIS noise analysis), prepared the initial response concerning how Version 5.1 would differ from the version used in preparing the EIS contours (Version 4.11), based on their experience with use of both models. This consultant participated in an industry review of the FAA's development of INM Version 5.1.

Several individuals/organizations requested that the existing conditions noise analysis be updated from 1994 to 1996 in the Final Supplemental EIS. However, as is noted in Appendix F of the Final Supplemental EIS, noise impacts are expected to have declined between 1994 and 1996. Further, the existing conditions analysis is provided as a reference to enable greater understanding of future conditions with and without the proposed improvements. As a result, updating the existing conditions would not have altered the concluding future impact evaluation or mitigation.

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28. Commentor indicated that modeling data and assumptions were not available for public review. (13, 19)

**Response:** Appendix C-3 of the Final Supplemental EIS contains a discussion of the modeling data. Copies of the modeling data were provided to everyone who requested the raw data during preparation of the Draft EIS through preparation of the Final Supplemental EIS.

29. Commentor requested seasonal noise contours, statistical correlation between predicted INM contours, and noise measurements from the monitoring stations and comparison of SEL noise as measured and SEL noise as computer modeled. (14,15, 16, 18)

**Response:** Response to comment 7-P in Appendix F of the Final Supplemental EIS discusses a comparison of the existing noise exposure contours to actual noise measurements. While residents expressed a desire to see seasonal noise exposure contours, they were not prepared. While there is some seasonality to the runway usage conditions (north flow versus south flow), FAA guidance requires the preparation of average annual noise exposure contours. No further analysis is warranted for the EIS process.

30. Commentor requested a cost/benefit analysis of the Third Runway. (16, 44)

**Response:** See Appendix G to the Record of Decision.

31. Commentor requested method for determining population impacts.(17)

**Response:** Analysis of the population affected by aircraft noise was prepared based on the 1990 census. Noise contours were electronically overlain on census blocks. The percentage of population affected was then determined based on multiplying the population within the block by the proportion of the block within a noise contour. While a margin of error exists in any form of population and housing impact analysis, the approach used is an accepted industry practice. Any margin of error would apply equally to all alternatives evaluated.

32. Commentor requested ground noise data used in the noise modeling. (17)

**Response:** The Final Supplemental EIS response to comment 7-Z referred the reader to the ground noise evaluation prepared for the Final EIS (see Volume 2, Appendix C).

33. Commentor requested consideration of an earth berm and contrast to berm at Paine Field. (18)

**Response:** Earth berms are generally common types of noise mitigation used to address specific noise conditions – noise from ground level noise with the berm placed close to either the noise source or receiver. While an earth berm could be useful in addressing certain conditions at Sea-Tac, it would not alleviate significant adverse noise caused by the proposed improvements at Sea-Tac.



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34. Commentor requested noise exposure maps using the FAA's Terminal Area Forecast (TAF). (18)

**Response:** While the TAF reflects a higher number of total operations in contrast to the Port's new forecast, the FAA determined that the Port's forecast is within an acceptable range of variation. Adding to the reasons that the TAF was not used, is that the information is not produced at a level of detail to enable a detailed evaluation of aircraft noise conditions. For instance, the TAF does not provide aircraft fleet mix information, time of day of operation, or the average daily traffic levels which are necessary to the evaluation.

35. Commentor requested official documentation to corroborate the operational procedure assumptions. (18)

**Response:** Existing operational conditions were verified through use of FAA radar data, as obtained from the ANOMS system. This data reflects actual implementation of tower orders and departure procedures. As a future tower order has not been prepared, nor is it a normal process to prepare such procedures as part of an EIS, the response contained in the Final Supplemental EIS could not provide such information.

36. Commentor requested actual INM data. (18-19)

**Response:** Because of the volume of information, and that few people understand the formatting and presentation of INM raw data, it was not included in the Final EIS or Final Supplemental EIS. It has, however, been provided to any individual that has requested the data. As was noted in the response to comments in Appendix F of the Final Supplemental EIS, Appendix C-3 contains a summary of the data input to the model.

37. Commentor questioned the reliability of local use of the INM. (19)

**Response:** It is unclear what the commentor is requesting when questioning the reliability of the INM. As is shown in response to comment 7-P, actual noise conditions do vary from results of the computerized model. The model has been validated by the FAA to present noise conditions with an accuracy range of +/-3 dBA.

38. Commentor requested modeling of contours on maps with topographic features. (18)

**Response:** The commentor has asked for additional maps which contrast the noise contours with topographic conditions. Normal FAA noise maps are prepared on street based maps. Inclusion of topographic lines on the street maps would make the maps illegible. As a result, the Final EIS presented the topographic conditions in Chapter IV, section 19 "Earth" and the noise impacts on standard street maps in the Final EIS Chapter IV section 1 and the Final Supplemental EIS, in Section 5-2.

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39. Commentor requested review of noise abatement departure corridors, profiles, runway use, and conduct of a Part 161 Study. (20)

**Response:** The suggestions for consideration of these actions has been received, and in some cases are reflected in the commitments that the Port of Seattle has already made in the PSRC process. Issues of departure corridors, climb profiles, and runway use will be considered in the Part 150 Study that was initiated in 1997. Thus, these actions were not considered as part of the Final EIS/Final Supplemental EIS, as the significant adverse impacts of the project have been identified and alternative mitigation proposed and committed to in the ROD.

40. Commentor requested the conduct of social surveys. (20)

**Response:** While the conduct of social surveys might provide information of interest to area residents, the information would not alter or affect the conclusions of an EIS process and is beyond the scope of an EIS. As a result, these surveys were not conducted.

41. Commentor requested a financial commitment by the Port of Seattle for noise sensitive facility insulation. (20)

**Response:** The Port of Seattle has made its commitments to sound insulation in Resolutions 3125 issued in November 1992, Resolution 3212 issued on August 1, 1996 and Resolution 3245 issued on May 27, 1997.

42. Commentor requested explanation of the progress toward compliance with the Expert Panel's recommendation to expand the residential acquisition program.

**Response:** Expansion of the acquisition program was not included in the recommendations of the PSRC in amending the Metropolitan Transportation Plan. The Final EIS/Final Supplemental EIS examined acquisition needed to construct the preferred alternative and recommended further consideration of the acquisition of residences located in an area defined by the Approach Transition Area, given that the affected jurisdictions and citizens concur. No other acquisition is warranted to address conditions arising from the proposed improvements.

43. Commentor noted that response 2-V moved, but that no notation was provided as to its location.

**Response:** The reference to comment 2-V in the response to comment 7-AB is a typographical error. In ordering the responses, 2-V was moved to the 7-AH location, and the references (which only occurred in the response to comment 7-AB) should have been changed to note 7-AH.

44. Commentor indicated a belief that a Superior Court Agreement precludes modification to Miller Creek. (23)

**Response:** This comment appears to be directed at a settlement agreement in the Kludt et al v. King County and Port of Seattle case. As noted in Appendix F of the Final Supplemental

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EIS, a substantial amount of change has occurred in the Miller Creek Basin since this settlement. This case related to stormwater runoff and flooding in the vicinity of Miller Creek, among other matters. In the settlement agreement, the Port agreed to undertake certain steps regarding drainage detention. The concerns addressed in the settlement agreement, i.e., stormwater detention, have been considered with regard to the Master Plan Update projects, as documented in the Final EIS and Supplemental EIS. Stormwater detention to address stormwater runoff from the Master Plan Update improvements is included in the Master Plan Update and assessed in the Final EIS/Supplemental EIS. Also concerns with flooding in Miller Creek led to a desire to not increase in-stream flows. As is shown in the Final EIS, the proposed Master Plan Update improvements will not increase in-stream flows (see Final EIS, Chapter IV, Section 10 "Water Quality and Hydrology"). Thus, this agreement does not appear to be an impediment to the proposed improvements.

45. Commentor expressed that there are legal barriers to wetland mitigation out of the basin. (23)

**Response:** The wetland mitigation will be conducted in accordance with all applicable laws and regulations. See Response to comment 9-N and 9-U in Appendix F of the Final Supplemental EIS.

46. Commentor requested explanation of why the DSEIS did not mention the storm drainage comprehensive plan and requested comparison of it to the Miller Creek Relocation Plan. (23)

**Response:** The Draft SEIS did not mention the storm drainage comprehensive plan as it had not been completed at the time that the Draft SEIS was printed; a summary of it is included in the Final Supplemental EIS. All of the water resource studies at Sea-Tac have been coordinated to ensure that applicable and appropriate information was used as it became available. No further analysis or comparison of these studies is warranted.

47. Commentor indicated that the Draft SEIS contained no information concerning the impact of the project on the aquifer. (24)

**Response:** The purpose of the Supplemental EIS was to present all new data that had become available since issuance of the Final EIS in February 1996. As no new data was available concerning aquifer conditions, and the other identified changes would not alter conditions associated with the aquifer, no further analysis was warranted.

48. Commentor requested definition of goals to meet fish habitat preservation. (24)

**Response:** The requisite level of detail needed for an EIS is provided in the Final Supplemental EIS concerning the mitigation goals.

49. Commentor requested information on: consequence of acquisition, residential displacements, disruption of existing communities, disruption of planned development, changes in community demographics, changes in employment patterns, and impact on schools from changes in demographics. (26)

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**Response:** The Final EIS Volume 1, Chapter IV, Section 6 (as well as other sections in this chapter) adequately discussed the social consequences of the proposed improvements.

50. Commentor suggested that the FSEIS should take into account the final, published version of the Burien Mitigation Study. (26)

**Response:** Final Supplemental EIS Appendix F, response to comment 4-J reflects the review of the Burien Mitigation Plan. During public meetings, officials from Burien have indicated that the text of this report will not be altered, and that the final report will be a binding together of the draft report and the public and agency comments received. Thus, no further consideration is warranted.

51. Commentor requested a definition of significant adverse impact. (27)

**Response:** FAA Orders 5050.4A and 1050.1D, and federal regulations, define the thresholds of significant adverse environmental impact. As an example, a significant adverse noise impact is defined as an increase in noise of 1.5 DNL or greater at a noise sensitive use within the 65 DNL noise exposure area.[FAA Order 5050.4A, Paragraph 47e(1)(d)2] Thus, as in the example cited by the commentor, a school would not be adversely affected unless the existing noise exposure above 65 DNL increased by 1.5 DNL or more.

52. Commentor questioned if other Environmental Justice “protected classes” other than non-white populations are affected. (35)

**Response:** Based on the available information, the other “protected” class is low-income which would not be disproportionately affected. If viewed from a community at large perspective, as suggested by the commentor, the finding would be the same, that the project does not create disproportionate impacts on minority communities.

53. Commentor questioned what effect a 5-year delay in implementing the runway will have on rail serving as a viable alternative to the runway. (35)

**Response:** Chapter 2 of the Final Supplemental EIS addresses rail as an alternative to the Third Runway. As is shown, the new construction schedule does not alter the conclusions concerning the viability of rail as an alternative.

54. Commentor indicated that the EIS failed to consider possible transportation and demand/management alternatives. (36-39)

**Response:** In the March 1997 comments, and this submittal, alternatives suggested included rail, telecommunications, demand/system management, technology, and commercial service at alternative airport sites. These alternatives are thoroughly assessed beginning with the Flight Plan Study, the Expert Panel, and the Master Plan Update Final EIS and Final Supplemental EIS. These efforts showed that these alternatives are not reasonable or feasible. No further analysis is warranted.

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55. Commentor asked if the earth work/fill movement practicable and if engineers were involved in the planning. (40)

**Response:** The review of available options to satisfying the need at SeaTac (as opposed to the need at Albuquerque) demonstrates that the development of the Third Runway is reasonable and practical. Engineers were involved in the Master Plan Update, the Preliminary Engineering and the preparation of the Master Plan Update Final EIS and Final Supplemental EIS.

56. Commentor questioned what will happen when the capacity of the third runway is reached in a few years? What are the plans for a fourth runway. (41)

**Response:** See response to comment 2-Q in Appendix F of the Final Supplemental EIS.

57. Commentor requested a definition of acceptable delay. (43)

**Response:** The maximum "acceptable" delay for any single component of the National Airspace System – NAS --(such as an individual airport) is extremely subjective and dependent on a number of factors unique to an individual facility. Factors that typically influence "acceptable" delay levels at airports include the relative occurrence of poor weather conditions, passenger expectations, airline cost of delay, and the effect of delays at other airports throughout the NAS. Since operating conditions are unique at each airport, a single level of acceptable delay that applies to all airports can not be established. In addition, the definition of acceptable delay varies by user of each facility. As a result, the Final EIS and the Final Supplemental EIS notes the delay levels used by various sources, and how those levels relate to planning and development considerations.

58. Commentor questioned the derivation of the \$1.6 billion entire master plan update improvements cost estimate. (44)

**Response:** Master Plan Update Technical Report Number 8 contains a detailed listing of the derivation of this cost.

59. Commentor requested additional information concerning cumulative impact projects. (46)

**Response:** The commentor requested the status of the planning for the projects included in the cumulative impact evaluation. No new details have been produced as of publication of the Final Supplemental EIS to enable further elaboration.

- *On-Airport Hotel* - A SEPA Final EIS was completed for this project in 1995.
- *Des Moines Creek Technology Campus (DMCTC)* with CTI development - during the preparation of this additional environmental analysis, the City of Des Moines and the Port of Seattle discontinued discussions of the DMCTC project. No changes were made in the assumptions associated with development of this site, as it is anticipated that commercial development will occur on the site at some time in the future.

- 
- *City of SeaTac Airport Business Center* - This proposed project is reflected in the City of SeaTac's Comprehensive Plan.
  - *Federal Detention Center* - the facility that was completed in 1996.
  - *South Aviation Support Area development*- A NEPA/SEPA Final EIS was approved for this project in 1994. The Master Plan Update Do-Nothing alternative assumes that the site known as SASA is developed for maintenance functions as discussed in the 1994 Final EIS for that project. The Master Plan Update Final EIS and the Final Supplemental EIS reflect development of this area to support displaced and/or growth in cargo and maintenance facilities.
  - *Roadway projects* included in the Transportation Improvement Plan, such as widening International Boulevard, 28th/24th Avenue South improvements, etc. - numerous projects are included in the Transportation Improvement Plans of jurisdictions in the Airport area and implementation and planning for these projects are in various stages. For instance, a portion of the International Blvd. widening was completed during 1996, and a second phase is underway in 1997. A third phase is anticipated to be undertaken in 1998. Further planning activities and discussions are occurring concerning the 28/24<sup>th</sup> South improvements.
  - *Regional roadway projects*, such as SR 509 Extension and Southern Airport Expressway - a programmatic EIS has been prepared for this project, as referenced in the Final EIS and Final Supplemental EIS.

The planning efforts from these other regional developments were reviewed in preparing the Final EIS and Final Supplemental EIS.

MAY 23 1997

ANM-610 \_\_\_\_\_

STIA Ground Water Study

①

Henry J. Frause  
411 S.W. 186th  
Normandy Park, WA., 98166-3959

To: Mr. Roger Nye,  
State of Washington Department of Ecology,  
NorthWest Regional Office  
3190 - 160th Ave. S. E.  
Bellevue, WA., 98008-5452

To: Mr. Dennis Ossenkop ✓  
Federal Aviation Administration  
Northwest Mountain Region  
1601 Lind Avenue Southwest  
S.E. Renton, WA. 98033-4056

CC: Ms. Christine Gregoire Attorney General  
High/Licenses Building  
P.O. Box 40100  
Olympia, WA., 98504-0100

Ref.: (1) National Environment Policy Act (NEPA).  
Section 1503.4 (5).  
(2) Federal Register Docket No. \_\_\_\_\_

Subject: Response to the Port of Seattle's Ground Water Study, Prepared by the Washington Department of Ecology, Relative to the "Agreed Order # 97TC-N122.

Dear Sirs: (Mr. Nye/ Mr. Ossenkop),

The following comments are submitted in response to the subject "Ground Water Study". Please be aware of the impact that this study has relative to the final Decision of Record. My comments, herewith, do not address the "ground Water Study" per se. They do, however, apply to the total packaging procedure related to the FEIS. The FEIS along with the Final-Rule summary cannot exist in any Supreme Court decisions without a Federal Docket No. to show the full continuity of the FEIS.

The composition of any item, according to mathematics, is the sum total of all its parts. an automobile, for instance; a house; an apple or an orange; a Walla Walla onion... You get the idea? Each one is complete in itself.

The Final EIS controls the engineering procedures that shall be applicable to the 3rd runway of the Port of Seattle's STIA, [Seattle Tacoma International Airport]. The Study, like the other examples noted above, is a total entity.

The equation, therefore, must be followed...in order to receive the State's Certification.

Equation.  $A = [B + C + D + E + F]$  (A) is the Final EIS.  
It consists of (B) the Draft EIS +  
(C) the Final EIS with [Docket No.] +  
(D) the Draft Supplemental EIS +  
(E) the Final Supplemental EIS with [Docket No.] +  
(F) the "Ground Water Study" with [Docket No.].

May 21, 1997

1 of 2

AR 013182

Gentlemen, here are the facts. Both of you took an oath of allegiance that you would perform the duties of protecting the Nation and "We The People" from any invasion of our privacy and/or our Bill of Rights in accordance with the Constitutional statutes of the United States.

- How do you justify the fact that you are now participating in an illegal marriage known as Municipal Corporation? The term "Municipal Corporation" is nothing more than a title of a treatise written by Mr. John Forrest Dillon as a necessary requirement to receive his Doctor of Law degree from the Univ. of Iowa. During his term as a Federal circuit judge In 1872, he and his printer published his book entitled Municipal Corporations.

What has happened in recent years is that the marriage known as Public/Private has been replaced by another marriage known as Municipal Corporation. The State of Washington is deeply involved with this marriage via the Justice System. Take a look at any law suit involving a municipality and you will see that it reads as follows: "....the City of Burien.....a Municipal Corporation". In this grammatical form, the word Municipal is merely an adjective modifying Corporation. It has no legal meaning at all. The antecedent of Municipal Corporation is not "Municipality". A Municipality is not a Municipal! or visa versa.

On the other hand, the State of Washington Legislature authorized the Port of Seattle to be a separately constituted municipal corporation (\* one agency) with unlimited authority; followed later by a declaration from the governor that the State no longer could or would interfere with the decisions of a quasi-government operating under Corporational by-laws.

Even as I am writing this letter the illegal marriageaes are prevalent in the subject "Ground Water Study" and other EIS Studies. There's the governmental agency (DOE) married to the Port of Seattle; the Port is married to the (FAA); The Port is married to the (EPA). These agencies are Constitutionally protected as long as they are not controlled by the Port of Seattle. To do otherwise places the Port of Seattle in an authoritive position above that of the President of the United States and thereby categorizes him along with us as "We The Slaves" thus removing him also from his civil rights and his bill of rights.

- I need an authorative rendition of Dillon's Rule. I'm quite sure that it is not an acceptable legal definition. We are not to be subjected to the level of slavery at the expense of Millionaire CEO's hiding behind the term Corporations that provide us with an empty bag with the words "Economic Development" silk-screened on it.

When I am satisfied with just what the administrative procedures are that we are being subjected to will I be able to address the "Clean Water Study". I have never yet seen any STUDY brought to a conclusion. Studies seem to be an ongoing thing and each study costs the taxpayers a lot of money; yet, they are not getting anything in return for their assessments.

The last day to turn in comments is June 6th. Therefore, it becomes mandatory that an answer is submitted to me as soon as possible. I remain,

Yours truly,

*Henry J. Frause*  
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 Henry J. Frause (PH. 242-0950)

May 21, 1997

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A MESSAGE FROM

GUESS WHO

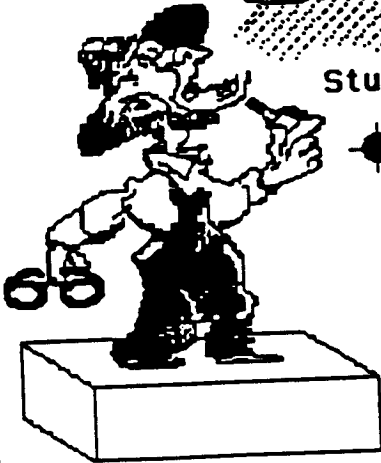
*For Your INFORMATION*

To: Ms. Christine Gregoire  
From: Henry J. Frause

Subject: Port of Seattle's...  
Ground Water Study

Study?.....Humbug!

I'd appreciate a response from  
all addressees, Thank you.



Public/Private suggests cooperation between 260 million inhabitants and certain Corporations. This identifier was changed to read Municipal Corporation. Dillon also identified it as a marriage, and it also has been called a partnership.

No matter how thin you cut it, it still is bologna; and no amount of marketing can sell bologna mixed with mustard. It won't work. Mixing Governmental Agencies with Private Corporations can lead to Treason. So I need your answer, please. Thank you.

**SENDER:**

Henry J. Frause  
411 - SW. 186th  
Normandy Park, WA., 98166

Christine,

The attached letter is the one I sent to Mr. Roger Nye, State of Washington Department of Ecology, Northwest Regional Office, 3190 - 160th Ave. S.E., Bellevue, WA., 98008-0100, in response to a Public Hearing held last night at the Burien Library. I'm sending it to other VIPs as well.

My comments were focused on the packaging procedure. I intend to submit additional comments related to the Study itself, but I am searching for administration procedures that I think need to be addressed before the Port of Seattle establishes any kind of corporational by-law directives that will override the Department of Ecology's findings.

I feel that it is highly improper that the Port holds a heavy hand over the State Agency and presents its own private inputs as a means of reducing its overall costs.

The Port was given authority by the Legislature to operate an airport only. The Port was given no authority to operate and conduct a Scientific Research Laboratory nor to act as a Municipal Corporation under Justice Dillon's Rule.

If the Port intends to apply any of its quasi controls and overrides Constitutional Agencies...it will be demonstrating a degree of contempt that smacks of and smells like a possible conspiracy.

May 22, 1997

File: A Message...

AR 013184

John F. Hayden  
Corporate Vice President  
Government &  
Community Relations

The Boeing Company  
P.O. Box 3707 MS 14-49  
Seattle, WA 98124-2207

May 23, 1997

REC'D ANM-610  
PLAN; PGM, & CAP

MAY 27 1997

ANM-610 \_\_\_\_\_

The Honorable Paige Miller, President  
Port of Seattle Commission  
P.O. Box 1209  
Seattle, WA 98111

2

Re: Resolution 3245, Seattle Tacoma International Airport  
Supplemental Environmental Impact Statement

**BOEING**

Dear President Miller and Commission Members:


The Boeing Company has reviewed the May, 1997 Seattle Tacoma International Airport Supplemental Environmental Impact Statement (EIS), the most recent study of the Master Plan to increase capacity at the airport. Based upon the comparison of new data to the original Final EIS dated February, 1996, and an EIS addendum by the Puget Sound Regional Council dated May, 1996, we agree with the conclusions of this Supplemental EIS.

Our support for increased capacity at SeaTac continues, and is unchanged from previous study outcomes. Increased numbers in new forecasts have not changed the recommended alternative for accommodating growth. Timing of implementation will obviously change to some degree.

As a major user of this airport for world wide travel to conduct our business we encourage you to adopt the findings in the Supplemental EIS and move ahead with implementation before conditions begin to worsen at SeaTac. Our business, and the region, will be negatively impacted if air traffic delays become excessive.

Thank you for this opportunity to comment on the newest revision to the EIS. Any questions may be directed to me at 655-3640.

Sincerely,

  
John Hayden

cc: Mr. Dennis Ossenkop

AR 013185

REC'D ANM-610  
PLAN; PGM, & CAP BR

JUN 18 1997

June 16 1997

ANM-610 \_\_\_\_\_

(3)

Dear Dennis,

Why is the FAA and the Port of Seattle still ignoring the questions + comments of the people who are most affected by the Port's operation of Sea-Tac Airport? What do we need to do to make you see that expanding operations at Sea-Tac can only make air + water quality much worse than ever?

We have lived in Des Moines long before the airport ever existed. It should never have built the 2<sup>nd</sup> runway. Promises made to this community have not been kept. No major metro-area in the U.S. has only one airport + that

AR 013186

packed among thousands + thousands  
of people.

How can we find out how  
a wetland can be moved from one  
area to another? Who made that  
determination? Will our drinking  
water be safe from airport produced  
contaminates?

Sincerely,

Margaret + Glenn Farrell

Glenn E. Farrell  
21220 4th Place South  
Des Moines, WA 98198-3619

AR 013187

CUTLER & STANFIELD, L.L.P.

700 FOURTEENTH STREET, N.W.  
WASHINGTON, D.C. 20005-2014  
TELEPHONE: (202) 624-8400  
FACSIMILE: (202) 624-8410

OT R. CUTLER  
FREY L. STANFIELD  
HEILA D. JONES  
PERRY M. ROSEN  
PETER J. KIRSCH  
BARRY CONATY  
STEPHEN H. KAPLAN\*  
PAIGE E. REFFE  
BYRON KEITH HUFFMAN, JR.  
SARAH M. ROCKWELL\*  
KATHERINE S. ANDRUS  
MARC R. BRUNER  
FRANÇOISE M. CARRIER  
CHRISTOPHER M. KAMPER\*  
WILLIAM G. MALLEY  
DANA C. NIFOSI  
BARBARA PALEY  
W. ERIC PILSK  
TIM A. POHLE  
JOHN E. PUTNAM  
THOMAS D. ROTH  
\*NOT ADMITTED IN DC

4

1675 BROADWAY  
DENVER, COLORADO 80202  
TELEPHONE: (303) 625-7000  
FAX: (303) 625-7008

June 19, 1997

VIA OVERNIGHT MAIL

Mr. Dennis Ossenkop  
Federal Aviation Administration  
Northwest Mountain Region  
1601 Lind Avenue, S.W.  
Renton, Washington 98055-4056

Ms. Barbara Hinkle  
Health, Safety and Environmental Management  
Port of Seattle  
P.O. Box 68727  
Seattle, Washington 98168

Re: Comments on the Final Supplemental Environmental Impact  
Statement for the Proposed Master Plan Update Development  
Actions at Seattle-Tacoma International Airport

Dear Mr. Ossenkop and Ms. Hinkle:

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 (the "ACC"), we submit these Comments on the Final  
Supplemental Environmental Impact Statement ("Final SEIS") For The Proposed Master Plan

AR 013188

Mr. Dennis Ossenkop  
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June 19, 1997  
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Update Development Actions at Seattle-Tacoma International Airport ("Sea-Tac" or "Airport").<sup>1</sup>  
The Final SEIS, which was issued in mid-May 1997, was prepared jointly by the Federal Aviation Administration ("FAA") and the Port of Seattle ("Port").

As you are aware, the ACC submitted extensive comments on the Draft Supplemental Environmental Impact Statement ("Draft SEIS").<sup>2</sup> We do not repeat those detailed comments, but instead call to your attention the fact that the Final SEIS has not corrected the fundamental flaws which were present in the Draft SEIS. Those same flaws continue to pervade and contaminate the analyses in the Final SEIS. The Final SEIS does not, therefore, satisfy the legal requirements of the National Environmental Policy Act ("NEPA"),<sup>3</sup> the Washington State Environmental Policy Act ("SEPA")<sup>4</sup> and other state and federal requirements applicable to this project.

Significant inadequacies which have not been remedied in the Final SEIS include the following:

- The Final SEIS is methodologically flawed, because it contains inaccurate and implausible assumptions about the number of passengers and operations which will use Sea-Tac if the expansion program is implemented, in comparison with the Do-Nothing alternative. These assumptions permeate all of the

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<sup>1</sup> U.S. Dep't of Transp., Fed. Aviation Admin. and Port of Seattle, Final Supplemental Environmental Impact Statement for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport (May 1997).

<sup>2</sup> Airport Communities Coalition, Comments on the Draft Supplemental Environmental Impact Statement for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport ("Draft SEIS Comments") (Mar. 1997).

<sup>3</sup> 42 U.S.C. §§ 4231-4370d.

<sup>4</sup> Chapter 43.21C RCW.

environmental analyses which are critical to the preparation of an adequate environmental impact statement as required by NEPA and SEPA.

- The Final SEIS continues to rely on the data and analyses prepared for the 1996 Final EIS<sup>2</sup> which are out-of-date and largely irrelevant in light of the fact that the FAA and the Port (1) now project that substantially more passengers and operations will use Sea-Tac in the future; (2) have made major, significant changes in the proposed expansion project; and (3) implicitly have changed the avowed purpose and need for the project.
- The Final SEIS does not provide sufficient detail about each of the actions to be undertaken, particularly those actions which will involve the construction of major new terminal facilities, parking garages and roadways; filling and grading activities; and creek relocation projects, among others. Without proper definition of the projects, the impacts to transportation, ground and surface water, air quality and other resources cannot be determined.
- The Final SEIS does not examine reasonable alternatives. For example, the FAA and the Port do not review and reevaluate reasonable alternatives based upon (1) their revised projections of the numbers of passengers and operations which will use the expanded Airport; (2) the change in the sequence of project actions which significantly alters the Preferred Alternative; and (3) the implicit changes in the purpose and need for the project.
- The Final SEIS does not adequately consider reasonable mitigation and summarily dismisses the analyses and conclusions of a year-long state sponsored and funded study of mitigation measures necessary to address the adverse impacts of the expansion of Sea-Tac.
- The Final SEIS fails to describe or analyze properly the significant environmental impacts of the third runway and the other Master Plan Update development actions.
  - ◊ The Final SEIS fails to examine the real extent of the destructive effects – on local and regional roads, on schools and on the community – of thousands of daily trips by large truck/trailer dump trucks transporting millions of cubic yards of fill six days a week for at least five years. For example, the Final SEIS suggests that transporting fill dirt over a five-

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<sup>2</sup> U.S. Dep't of Transp., Fed. Aviation Admin. and Port of Seattle, Final Environmental Impact Statement for Proposed Master Plan Development Actions at Seattle-Tacoma International Airport (Feb. 1996).

year period will be less intrusive and disruptive than transporting fill dirt for three years. Moreover, the Final SEIS does not provide an accurate calculation of the amount of fill dirt likely to be needed to construct the third runway, and substantially underestimates the number of trucks and truck trips which will be required to transport the fill. By underestimating the number of trucks, and the amount of fill, the Final SEIS fails to disclose the true level of adverse impacts that the project will have on air quality, the local and regional road network and traffic congestion.

- ◇ The Final SEIS does not contain sufficient detail regarding the actual construction of the proposed new runway, and it fails to analyze impacts from critical aspects of the construction project, such as (1) how more than 26 million cubic yards of fill dirt will be transported, unloaded, placed and compacted to create the massive embankment required for the third runway; (2) how and where fill material would be stockpiled; (3) how material excavated from the construction site or from Port-owned property would be disposed of if it is unsuitable for use as fill; (4) how the fleet of off-road construction equipment (e.g., bulldozers, backhoes, front loaders, graders, scrapers, compactors and water trucks) required for the project would be transported to the construction site or how they would maneuver around the site once construction is underway; or (5) how, and by which routes and vehicles, materials and construction workers will be transported to and from the construction site.
- ◇ The Final SEIS does not adequately consider the measures that will be required to mitigate the effects of the massive construction project envisioned by the Port, including, but not limited to, appropriate mitigation measures and plans for site rehabilitation of the borrow pit locations.
- ◇ The Final SEIS understates the extent to which the development actions contained in the Master Plan Update would violate the requirements of the Washington State Growth Management Act ("GMA"),<sup>4</sup> because these actions are inconsistent with the GMA comprehensive plans and development regulations which previously have been adopted by surrounding jurisdictions. Moreover, the Final SEIS does not consider mitigation measures which would be required to achieve consistency with the GMA comprehensive plans and development regulations of the surrounding jurisdictions.

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<sup>4</sup> Chapter 36.70A RCW.



- ◊ The analysis of noise impacts in the Final SEIS is faulty, because it continues to rely upon 1994 noise contours to define "existing" noise levels. Based on these out-of-date noise contours, the Final SEIS makes the erroneous statement that the area exposed to noise of DNL 65 dB or greater is expected to decline in the future regardless of new development and increased operations at the Airport.
- ◊ The Final SEIS contains an inadequate analysis of air quality impacts and does not provide a reasonable basis upon which the FAA can make a determination of conformity as required by the federal Clean Air Act of 1990.<sup>2</sup> The analysis of air quality is based on erroneous assumptions about the number of passengers and aircraft operations which, in turn, have resulted in the dubious finding that the Airport expansion would reduce emission of a number of major air pollutants (e.g., carbon monoxide, nitrogen oxide, and volatile organic compounds).<sup>3</sup> Expert reports previously submitted to the FAA and the Port concluded that the proposed expansion of Sea-Tac is likely to have significant adverse environmental effects on air quality in the Airport environs and raised serious questions about the validity and credibility of the underlying modeling methodology in the Final SEIS. Moreover, comments submitted to the FAA by the U.S. Environmental Protection Agency, the Washington Department of Ecology and the Puget Sound Air Pollution Control Agency repeatedly have expressed reservations about the FAA's conclusion that the project would result in *de minimis* levels of additional emissions of carbon monoxide and/or oxides of nitrogen.
- ◊ The analysis of impacts on surface transportation in the Final SEIS is flawed because (1) it assumes that there will be no significant impact on the surface transportation network attributable to the substantial increase in the number of passengers using an expanded Sea-Tac; (2) it contains an inaccurate analysis of freeway operating conditions; and (3) it is based on the unfounded assumption that a number of improvements will be made to the surface transportation system.
- ◊ The Final SEIS inadequately considers the adverse effects of an expanded airport on the housing stock in communities surrounding Sea-Tac, and it disregards the ripple effect of decreased housing values

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<sup>2</sup> 42 U.S.C. § 7506(c).

<sup>3</sup> The ACC is submitting separate comments on the FAA's Final Conformity Analysis and General Conformity Determination.

on the schools.

- ◊ The Final SEIS ignores the existence of suitable sites for wetlands replacement within the affected drainage basin, and it lacks consideration of the cumulative effects of the additional loss of wetlands in the Miller and Des Moines Creek drainage basin.
- ◊ The Final SEIS does not adequately consider the water quality impacts, because it dismisses the effects of greatly increased stormwater runoff resulting from the addition of many acres of new paved, impervious surfaces, and it ignores the current fragile condition of Des Moines and Miller Creeks.
- The Final SEIS postpones assessment of the impacts of increased operations to future Master Plans "likely needed soon after the year 2010," and, thus does not adequately evaluate or consider mitigation for impacts of the projects beyond the year 2010.

The issues listed above merely highlight the defects in the Final SEIS. Additional defects are detailed in our comments on the Draft SEIS,<sup>2</sup> which are incorporated herein by reference, and in the administrative appeal filed by the ACC challenging the Port's adoption of the Master Plan Update and the Final SEIS which is attached to these comments as Exhibit A. The following additional documents in support of our comments are also attached hereto as Exhibits B through D, respectively:

Gary W. Evans, Staffan Hygge, and Monika Bullinger, *Chronic Noise and Psychological Stress*, 6 Psychological Science 333 (1995).

Gary W. Evans & Lorraine Maxwell, *Chronic Noise Exposure and Reading Deficits: The Mediating Effects of Language Acquisition*, Environment and Behavior (forthcoming 1997).

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<sup>2</sup> Draft SEIS Comments.

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Dr. Clifford Winston, *Reply to Comments by the FAA and the Port of Seattle on  
"Review of the FAA's Revised Aviation Forecasts for Seattle-Tacoma  
International Airport,"* (June 1997).

Sincerely,

A handwritten signature in cursive script that reads "Perry M. Rosen". The signature is written in black ink and is positioned above the printed name.

Perry M. Rosen

AR 013194

BEFORE THE HEARING EXAMINER OF  
THE PORT OF SEATTLE

THE CITY OF DES MOINES, THE CITY	)	
OF BURIEEN, THE CITY OF FEDERAL	)	
WAY, THE CITY OF NORMANDY PARK,	)	
THE CITY OF TUKWILA, HIGHLINE	)	
SCHOOL DISTRICT NO. 401 and THE	)	
AIRPORT COMMUNITIES COALITION,	)	
	)	APPEAL OF DECISION
	)	ON THE LEGAL ADEQUACY
	)	OF THE SUPPLEMENTAL
	)	ENVIRONMENTAL IMPACT
	)	STATEMENT FOR PROPOSED
	)	EXPANSION OF SEATTLE-
Petitioners	)	TACOMA INTERNATIONAL
	)	AIRPORT
v.	)	
	)	
THE PORT OF SEATTLE, THE	)	
COMMISSIONERS OF THE PORT OF	)	
Seattle and BARBARA HINKLE, THE	)	
RESPONSIBLE SEPA OFFICIAL FOR	)	
THE PORT OF SEATTLE,	)	
	)	
	)	
Respondents.	)	
	)	
	)	

A. PRELIMINARY STATEMENT

1. The Cities of Des Moines, Burien, Federal Way, Normandy Park and Tukwila, the Highline School District No. 401 and the Airport Communities Coalition (collectively, "Petitioners" or the "Coalition"), hereby appeal the decision of Ms. Barbara Hinkle, the responsible official ("Responsible Official") of the Port of Seattle ("Port") and the Port Commission of the Port of Seattle ("Commission") determining that the Supplemental

Environmental Impact Statement ("SEIS")<sup>1</sup> prepared by the Port and the Federal Aviation Administration ("FAA") for Proposed Master Plan Update Development Actions (the "Master Plan Update") at Seattle-Tacoma International Airport ("Sea-Tac Airport") is adequate and was prepared in accordance with the Washington State Environmental Policy Act ("SEPA"), Chapter 43.21C RCW. Port Commission Resolution 3245 § 1.

2. Pursuant to Port Commission Resolution No. 3211, Petitioners bring this appeal to challenge the Port's finding that the SEIS is adequate and meets the requirements of SEPA. As explained in Petitioners' extensive comments submitted on the draft Supplemental Environmental Impact Statement for the Master Plan Update and again in this appeal, the Port's environmental review is based on faulty assumptions and contains a number of environmental deficiencies that run contrary to SEPA's requirements. Specifically, the environmental analyses in the SEIS are impermissibly biased and methodologically flawed:

- The SEIS is based on inaccurate and implausible assumptions about the number of passengers and operations which would use Sea-Tac Airport if the expansion program is implemented.
- The SEIS continues to rely on the analyses prepared for the 1996 Final EIS which are out-of-date and largely irrelevant in light of the fact that the Port has made major, significant changes in the proposed expansion project and implicitly has changed the avowed purpose and need for the project.
- The SEIS fails to examine the true extent of the destructive and intrusive effects on the region of thousands of daily trips by large truck/trailer dump trucks transporting millions of cubic yards of fill six days a week for at least five years.
- The SEIS summarily dismisses the analyses and conclusions of a year-long state sponsored and funded study of mitigation necessary to address the adverse impacts of the expansion of Sea-Tac Airport.

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<sup>1</sup> The SEIS consists of the Draft and Final SEISs and all Appendices attached thereto.

These deficiencies have denied the Port Commissioners and the public an accurate evaluation of the seriousness of the negative environmental effects that will result from the Master Plan Update projects, particularly in light of new projections of the significantly increased number of passengers and aircraft operations that will use Sea-Tac Airport. Petitioners will demonstrate that the Port's SEIS failed to examine alternatives adequately or to disclose the adverse impacts that the proposed expansion of Sea-Tac Airport would have on the quality of life in the central Puget Sound region, and particularly on the residents of south King County. Specifically, Petitioners will show that the SEIS did not adequately study and disclose the extent of impacts on air quality, water quality, noise levels, land uses, the roadway network and wetlands that will result from the projected major increase in the number of operations and passengers using Sea-Tac Airport, and further that it failed to examine and recommend mitigation measures sufficient to address these adverse effects.

#### B. PARTIES

3. The City of Des Moines is an optional municipal code corporation of the State of Washington, organized pursuant to the provisions of state law and located in King County, Washington.

4. The City of Burien is an optional municipal code corporation of the State of Washington, organized pursuant to the provisions of state law and located in King County, Washington.

5. The City of Federal Way is an optional municipal code corporation of the State of Washington, organized pursuant to the provisions of state law and located in King County, Washington.

6. The City of Normandy Park is a second class municipal corporation of the State of Washington, organized pursuant to the provisions of state law and located in King County, Washington.

7. The City of Tukwila is an optional municipal code corporation of the State of Washington, organized pursuant to the provisions of state law and located in King County, Washington.

8. Highline School District No. 401 ("Highline School District") is a school district in the State of Washington, organized pursuant to state law and RCW 28A.320.010, and located in King County, Washington.

9. The Airport Communities Coalition (the "Coalition") is a voluntary association of local governmental entities created and established by Interlocal Agreement pursuant to the provisions of state law and Chapter 39.34 RCW. The Coalition is composed of the Cities of Des Moines, Burien, Federal Way, Normandy Park and Tukwila and Highline School District No. 401.

10. The Port of Seattle is a port district and municipal corporation of the State of Washington, organized pursuant to state law and Chapter 53.04 RCW, and located in King County, Washington. The Port owns and operates Sea-Tac Airport. Ms. Barbara Hinkle, also a named party, is the Responsible SEPA Official for the Port of Seattle.

11. The Commission of the Port of Seattle is the executive body of the Port of Seattle, authorized to exercise all delegated powers and decision-making authority of the Port concerning actions involving Sea-Tac Airport.

**C. STANDING**

12. Petitioners have standing to bring this appeal because their interests are within the zone of interests protected by SEPA, and the approval of a legally inadequate EIS will cause them injury-in-fact.

**A. Petitioners' Interests Are Within the Zone of Interests Protected by SEPA.**

(1) SEPA recognizes that "each person has a fundamental and inalienable right to a healthful environment . . . ." RCW 43.21C.020(3).

(2) Among SEPA's primary purposes are: "(1) [t]o declare a state policy which will encourage productive and enjoyable harmony between man and his environment; (2) to promote efforts which will prevent or eliminate damage to the environment . . . ." RCW 43.21C.010.

(3) In enacting SEPA, the legislature declared that "it is the continuing policy of the state of Washington, in cooperation with federal and local governments, and other concerned public and private organizations, to use all practicable means and measures . . . to: (a) Foster and promote the general welfare; (b) to create and maintain conditions under which man and nature can exist in productive harmony. . . ." RCW 43.21C.020(1).

(4) SEPA sets forth procedures to ensure that governmental agencies conscientiously and systematically consider environmental values and consequences in their



decisionmaking processes, and that governing bodies take into account the environmental consequences of an action, consider reasonable alternatives to the action and mitigate the impacts of the action to the extent feasible.

(5) SEPA requires all branches of government -- including municipal and public corporations (e.g., the Port) -- to "[i]nclude in every recommendation . . . significantly affecting the quality of the environment, a detailed statement" of the environmental impacts of the proposed action; adverse environmental effects which cannot be avoided; and alternatives to the proposed action. RCW 43.21C.030(2)(c).

(6) Petitioner cities are municipal governments responsible for advancing the health and welfare of their citizens, for protecting public ways and critical areas within their respective jurisdictions and for providing adequate services and infrastructure within municipal boundaries. See, e.g., RCW 35.22.280, .570; 35A.11.020, .70.010, 36.70A.060(2), (3), .170(1)(d), .172.

(7) Petitioners' interests are within the zone of interests protected by SEPA because their residents are affected by decisions of neighboring jurisdictions and government agencies and districts, particularly decisions of the magnitude of the proposed expansion of Sea-Tac Airport which, if built, will result in significant environmental impacts in the area and the region.

(8) Petitioners are entitled by SEPA to have those neighboring jurisdictions and government agencies, including the Port, provide accurate information about the probable adverse environmental impacts of major actions and how those impacts will affect their cities.

(9) SEPA also entitles Petitioners to be informed by neighboring agencies such as the Port about all reasonable alternatives to its proposed action, all reasonable mitigation measures and any significant environmental impacts which the Port will not or cannot mitigate.

B. The Port's determination that the SEIS is adequate and meets SEPA requirements will cause Petitioners injury-in-fact.

(1) Because of their proximity to Sea-Tac Airport, Petitioners, their residents, school children, businesses and commercial enterprises are constantly exposed to noise, airborne pollutants and other detrimental aspects of daily operations at Sea-Tac Airport.

(2) The development actions proposed under the Master Plan Update – particularly the construction of a third runway at Sea-Tac Airport – will result in substantial additional impacts on Petitioners, school children, businesses and commercial enterprises.

(3) In addition, Petitioners are injured by an inadequate SEIS because it will result in the Port undertaking development actions without having a complete picture of the true environmental impacts on surrounding communities. Specifically, the environmental impact statement prepared by the Port failed to provide the Port Commissioners with accurate or complete information on the extent to which the expansion, inter alia, will adversely affect the air and water quality in Petitioner cities; will expose the Petitioners' residents, school children, businesses and commercial enterprises to increased noise levels; will subject the surrounding area to increased traffic and congestion; will severely damage the road surfaces on highways, streets and roads within Petitioner cities; will adversely impact the property values and the tax base of the Petitioner cities and school district; and will adversely affect the ability of Petitioner cities to

provide adequate services and infrastructure, including, but not limited to, properly maintained and functioning roads, responsive police, ambulance and fire services and proper settings for the education of Petitioners' school children.

(4) Failure of the SEIS to provide an adequate analysis of adverse effects will injure Petitioners by preventing them from being informed of, protecting against, or planning for those impacts.

(5) Failure of the SEIS to adequately examine alternatives to the construction of an 8,500-foot third runway at Sea-Tac Airport will injure Petitioners by preventing the Port Commission from adopting an alternative plan which would minimize the adverse environmental impacts on Petitioners and their citizens.

(6) Failure of the SEIS to examine thoroughly, recommend and commit to appropriate levels of mitigation will exacerbate the detrimental effects of the Port's approval of the SEIS.

#### D. JURISDICTION

14. The Hearing Examiner has jurisdiction over this matter pursuant to Port Resolution 3211 § 1.7 and Port of Seattle Hearing Examiner Rules of Practice and Procedure § 2.03.

#### E. FACTS

15. Sea-Tac Airport is one of the twenty busiest airports in the United States, in terms of both commercial passenger and cargo operations. Although Sea-Tac Airport is owned and operated by the Port, it is physically located primarily within the municipal boundaries of the City

of SeaTac and surrounded on all sides by Petitioner cities of Des Moines, Burien, Federal Way, Normandy Park and Tukwila. Sea-Tac Airport also sits within the boundaries of the Highline School District. The City of SeaTac is a separate optional code municipal corporation of the State of Washington, organized pursuant to the provisions of state law and located in King County, Washington.

16. In 1989, the Port and the Puget Sound Council of Governments ("PSCOG") entered into an interagency agreement creating a regional airport planning task force, known as the Puget Sound Air Transportation Committee ("PSATC"). The Port and PSCOG charged PSATC with developing and evaluating alternatives and presenting recommendations for meeting the Puget Sound region's long-term air transportation needs.

17. In January 1992, the PSATC issued a report referred to as the "Flight Plan Study." The Flight Plan Study recommended as a preferred alternative a phased, multiple airport system which would include three primary components: (1) construction of a third dependent runway at Sea-Tac Airport; (2) initiation of scheduled airline service at Paine Field near Everett in Snohomish County before the year 2000; and (3) identification of a site for a supplemental commercial airport in central Pierce County, or alternatively, Thurston County, to be developed no later than the year 2010. The Study also determined that any Sea-Tac Airport alternative, by itself, should not be studied further.

18. In October 1992, the Port and the Puget Sound Regional Council ("PSRC") (successor agency to PSCOG) issued a nonproject (programmatic) Final Environmental Impact Statement for the Flight Plan Project ("Flight Plan EIS") which purported to analyze

environmental effects which would result from certain airport systems. The Flight Plan EIS did not identify an agency-preferred alternative.

19. In November 1992, the Port Commission passed Resolution 3125, which adopted the PSATC recommendations to add a third runway at Sea-Tac Airport, but which also called for a regional solution to include reconsideration of a fast rail system linking Portland, Oregon and Vancouver, British Columbia airports; the diversion of all cargo-only carriers to an alternative airport; and a multiple airport system. Port Resolution 3125 § 1(a).

20. Resolution 3125 also directed the Port staff to work with the FAA to conduct studies and prepare plans and a site-specific environmental impact statement ("EIS") for a third runway at Sea-Tac Airport. Port Resolution 3125 § 1(b).

21. In 1993, the Port initiated the Master Plan Update to consider expanding the capacity of Sea-Tac Airport.

22. Pursuant to the National Environmental Policy Act ("NEPA") and SEPA, the Port and the FAA initiated preparation of a joint EIS to analyze development actions contemplated by the Master Plan Update.

23. In February 1994, Petitioner cities submitted extensive, detailed comments to the Port and the FAA on the proper scope of the EIS under SEPA and NEPA. Petitioners' representatives also presented oral testimony at a scoping hearing.

24. In April 1995, the Port and the FAA issued a draft EIS for the proposed Master Plan Update development actions, calling for a third runway, an extension of an existing runway and other capacity-enhancing development at Sea-Tac Airport. The avowed purpose and need for a third runway is to "improve the poor weather airfield operating capability in a manner that

accommodates aircraft activity with an acceptable level of delay." The avowed purpose and need for the extension of the existing second runway is to "provide sufficient runway length to accommodate warm weather operations without restricting passenger load factors or payloads for aircraft types operating to the Pacific Rim."

25. Petitioners -- and almost 400 others -- submitted extensive written comments on the draft EIS.

26. The Port and the FAA issued a Final EIS in February 1996. It identified as the preferred alternative a series of improvements that included, inter alia, the construction of a third parallel runway with a length of up to 8,500 feet (as well as corresponding taxiways and utilities); the extension of an existing runway to 12,500 feet; the development of a new air traffic control tower; the expansion of existing terminal facilities; and the addition of new terminal, parking, cargo, maintenance and support facilities. Petitioners and others submitted comments to the Port and the FAA detailing inadequacies of the Final EIS

27. On August 1, 1996, the Port Commission adopted Resolution 3212 which approved the Master Plan Update -- including the construction of a third runway and other projects expanding Sea-Tac Airport -- and determined that the Final EIS was adequate and met the requirements of SEPA. Port Commission Resolution 3212 § 1.

28. Immediately after (if not before) approving the Master Plan Update and finding that the Final EIS "is adequate and meets the requirements of [SEPA]," the Port and the FAA began to reevaluate the adequacy of the Final EIS in light of higher than expected aircraft operations and passenger enplanement data and forecasts.

29. After months of study and analysis, the Port and the FAA announced in December 1996 that "both the FAA and the Port have determined that the forecasts of aircraft activity and enplaned passenger used in the . . . draft and final [EISs] . . . did not adequately account for the actual growth which has taken place at Seattle-Tacoma International Airport in the past year nor the potential for faster growth rates than expected in the EIS's [sic]." 61 Fed. Reg. 68,327 (Dec. 27, 1996).

30. In the notice, the Port and the FAA indicated that a Supplemental EIS was needed because (1) "significant new information . . . relevant to environmental concerns" existed; and (2) the Port would make "substantial changes in the proposed action . . . relevant to environmental concerns." Id.

31. As a result of the Supplemental EIS process, the Port substantially changed the proposed development actions by accelerating the construction of landside facilities, such as the terminal and related roadways, by as much as ten years (compared to the proposal adopted by the Port in August 1996), and by markedly increasing the construction time of the third runway and postponing its expected completion date until 2005.

32. The Port and FAA released a draft Supplemental EIS in February 1997. The Petitioners and dozens of other local, state and federal agencies and members of the public submitted comments to the joint lead agencies on or about March 31, 1997. On or about May 13, 1997, the Port and the FAA released the SEIS.

33. On May 27, 1997, the Port enacted Resolution 3245, again purporting to adopt the Airport Master Plan Update for Sea-Tac Airport and to authorize construction of the third

runway and other airport development actions. The Port also found that the SEIS is "adequate and meets the requirements of [SEPA] . . . ." Port Commission Resolution 3245 § 1.

34. Together, the third runway and other expansion projects would result in an airport that is markedly larger, and as a result, capable of handling and attracting a significant amount of additional aircraft, passenger and surface traffic.

35. The expansion of Sea-Tac Airport would create substantial adverse environmental impacts on the Coalition communities, the City of SeaTac and other communities in the area and the region, including, but not limited to, additional air, noise and water pollution; surface traffic congestion; damage to the region's roadways; deterioration of the socio-economic fabric of long-standing residential neighborhoods; loss and degradation of wetlands; and interference with the instruction of school children within Petitioner cities.

#### F. BASIS FOR APPEAL

##### The Responsible Official Erred in Determining that the SEIS is Adequate Under SEPA.

36. Petitioners allege that the SEIS is legally inadequate for the following reasons:

A. The SEIS is methodologically flawed and fatally contaminated with inaccurate and implausible assumptions about the number of passengers and operations which will use Sea-Tac Airport if the expansion program is implemented, in comparison with the Do-Nothing alternative. These assumptions permeate all of the environmental analyses which are critical to the preparation of an adequate environmental impact statement as required by SEPA.

RCW 43.21C.030(2)(c)(i)-(v).



B. The SEIS relies on out-dated and irrelevant analyses prepared for the 1996 Final EIS, notwithstanding the fact that the proposed Sea-Tac Airport expansion project reviewed in the SEIS is substantially different than the project reviewed in the 1996 Final EIS. The project reviewed in the 1996 Final EIS emphasized the immediate need for a third runway. The project reviewed in the SEIS delays construction of the third runway for an additional five years and emphasizes the need for immediate landside improvements, such as a new terminal, parking facilities and interior roadways. The shift in the timing of the proposed development actions implicitly reflects a change in the avowed purpose and need for the project. A different purpose and need requires a *de novo* evaluation of alternatives.

C. The SEIS fails to examine the effects – on local and regional roads, on schools and on the community – of thousands of daily trips by large truck/trailer dump trucks transporting millions of cubic yards of fill dirt for five years. For example, the SEIS suggests that transporting fill dirt over a five-year period will be less intrusive and disruptive than transporting fill dirt for three years. SEIS at 1-10.

D. The SEIS fails to discuss adequately those mitigation measures that might be required. For instance, it summarily dismisses the recommendations of a year-long state sponsored and funded study of mitigation necessary to address the impacts of the airport expansion.

37. Petitioners' also allege that the SEIS is inadequate and does not comply with the requirements of SEPA for the following reasons:

A. Inadequate Description of Construction. SEPA requires a project-level

EIS to describe the objective(s), proponent(s) and principal features of the action, the location of

the action and phases of the proposal and their timing. WAC 197-11-440(5)(c). The SEIS fails to meet this requirement because it does not contain sufficient detail regarding construction of the proposed new runway, and fails to analyze impacts from critical aspects of the construction, such as (1) how more than 26 million cubic yards of fill dirt will be transported, unloaded, placed and compacted to create the massive embankment required for the third runway; (2) how and where fill material would be stockpiled; (3) how material excavated from the construction site or from Port-owned property would be disposed of if it is unsuitable for use as fill; or (4) how the fleet of off-road construction equipment (e.g., bulldozers, backhoes, front loaders, graders, scrapers, compactors and water trucks) required for the project would be transported to the construction site or how they would maneuver around the site once construction is underway.

B. Inadequate Consideration of Construction Impacts. SEPA requires the impacts analysis in an SEIS to “[s]uccinctly describe the principal features of the environment that would be affected, or created, by the alternatives including the proposal under consideration . . . ,” and “[d]escribe and discuss significant impacts that will narrow the range or degree of beneficial uses of the environment or pose long term risks to human health or the environment . . . .” WAC 197-11-440(6)(c). The SEIS fails to meet this requirement because it provides only a cursory analysis of the potential impacts related to construction of the new runway. Examples of this cursory analysis include, but are not limited to:

(1) The SEIS fails to provide an accurate calculation of the amount of fill dirt that is likely to be needed to construct the third runway. As a result of its unreasonable assumptions and erroneous and incomplete calculations, the SEIS substantially underestimates the number of trucks and truck trips which will be required to transport the fill. By underestimating

the number of trucks, and the amount of fill, the SEIS fails to disclose or consider the true level of adverse impacts that the project will have on air quality, local and regional road network and traffic congestion.

(2) The SEIS fails to describe adequately or accurately the enormous impacts of extracting, transporting, dumping and compacting between 20 and 30 million cubic yards of dirt over a period of at least five years. For example, the SEIS mentions in summary fashion that on-site borrow source areas 1 through 4 are located in close proximity to Des Moines Creek Park, but it never examines the extent or consequence of the impacts to the park of the development of significant strip mining facilities on adjacent land. SEIS at 5-4-11, 5-4-12.

(3) The SEIS fails to explain fully the potential impacts on surface transportation, roads or intersections of the more than 2,000 daily trips by large truck/trailer dump trucks transporting the fill dirt across and throughout the four-county Puget Sound region for at least five years – instead of three years as projected in the February 1996 Final EIS. Moreover, the SEIS only briefly mentions, but fails to investigate or analyze, the feasibility of alternative fill transport options that could minimize impacts on local communities. The SEIS also does not consider the distinctions between the types of environmental impacts associated with truck transport (e.g., air quality and surface traffic) and those which might be associated with alternative transport methods (e.g., water quality impacts associated with a conveyor belt along Des Moines Creek).

(4) The SEIS proposes measures for mitigating the effects of construction truck traffic on roadways and traffic patterns which may not be possible to implement. For example, the SEIS specifically calls for the construction of two temporary

interchanges – one from SR 518 near 24th Avenue S. and the other from SR 509 near S. 176th Street – as a purported means of mitigating the effects of airport construction traffic on local roads and traffic patterns. SEIS at 5-4-9, 5-4-10. The Washington State Department of Transportation has cautioned the Port that a temporary interchange off of SR 518 “will create operational problems due to merging and weaving vehicular movements” and that “WSDOT . . . feel[s] that it is extremely doubtful the proposed connection off SR 518 will be approved.” Letter from Renée Montgelas, Director, Office of Urban Mobility, Washington Department of Transportation, to Dennis Ossenkop, Environmental Specialist, FAA Northwest Mountain Region, at 4 (Mar. 27, 1997).

C. Inadequate Consideration of Mitigation Measures. SEPA requires that an EIS discuss reasonable measures that would significantly mitigate the identified impacts, indicate what the intended environmental benefits of mitigation measures are for significant impacts and discuss their technical feasibility and economic practicability. WAC 197-11-440(6)(c)(iii), (iv). By summarily dismissing a year-long state sponsored and funded mitigation study, the SEIS fails to adequately consider and evaluate available measures necessary to mitigate the enormous impacts of the airport expansion.

D. Inadequate Consideration of Land Use Impacts. SEPA requires an EIS to describe significant impacts on both the natural environment and the built environment, including significant environmental impacts upon land and shoreline use. WAC 197-11-440(6)(e). SEPA also requires an EIS to summarize existing plans and zoning regulations applicable to the proposal, and how the proposal is consistent and inconsistent with them. The SEIS fails to comply with SEPA because it grossly understates the extent to which the Master Plan Update

development actions would be inconsistent with the plans and regulations of surrounding jurisdictions, contrary to the requirements of the Washington State Growth Management Act, Chapter 36.70A RCW.

E. Inadequate Consideration of Noise Impacts. SEPA requires that an EIS analyze the significant noise-related impacts of a project. WAC 197-11-440(6)(e), WAC 197-11-444(2)(a)(i). The SEIS fails to meet this requirement because it continues to rely upon 1994 noise contours to define "existing" noise levels, and, based on these out-of-date noise contours, it states that the area exposed to noise of DNL 65 and greater is expected to decline in the future regardless of new development at Sea-Tac Airport. SEIS at 5-3-1.

F. Inadequate Consideration of Air Quality Impacts. SEPA requires that an EIS analyze the significant air quality impacts of a project. WAC 197-11-440(6)(e), WAC 197-11-444(1)(b)(i). The SEIS fails to meet this requirement because its analysis of air quality is based on erroneous assumptions about passenger traffic and aircraft operations which have resulted in the dubious finding that the airport expansion would reduce emissions of a number of major air pollutants (e.g., carbon monoxide, nitrogen oxide and volatile organic chemicals).

(1) Expert reports submitted to the FAA as part of Petitioners' comments on the FAA's draft conformity determination concluded that the proposed expansion of Sea-Tac Airport is likely to have significant adverse environmental effects on air quality in the Sea-Tac Airport environs and raised serious questions about the validity and credibility of the underlying modeling methodology in the SEIS.

(2) Comments submitted to the FAA by the United States

Environmental Protection Agency, the Washington Department of Ecology and the Puget Sound

APPEAL OF DECISION ON THE LEGAL ADEQUACY  
OF THE SUPPLEMENTAL ENVIRONMENTAL  
IMPACT STATEMENT FOR THE PROPOSED  
EXPANSION OF SEATTLE-TACOMA  
INTERNATIONAL AIRPORT - Page 18

CUTLER & STANFIELD, L.L.P.  
700 Fourteenth Street, N.W.  
Washington, D.C. 20005  
(202) 624-8400  
(202) 624-8410 Facsimile

AR 013212

Air Pollution Control Agency have repeatedly expressed reservations about the FAA's conclusion that the project conforms to the Washington State Implementation Plan – as is required by the federal Clean Air Act – because of errors in the emissions inventory and in the calculations used for modeling.

G. Inadequate Consideration of Impacts on Surface Transportation. SEPA requires that an EIS analyze the significant effects of the project on transportation, including vehicular traffic. WAC 197-11-440(6)(e), WAC 197-11-444(2)(c)(ii). The SEIS fails to meet this requirement, because it contains a flawed analysis of the effects of the project on surface traffic. Examples of such flaws include (A) the assumption that there will be no significant impact on the surface transportation network attributable to the increase in the number of passengers using Sea-Tac Airport, because continued regional population growth will impact the surface transportation system in the vicinity of Sea-Tac Airport regardless of the improvements undertaken at the Airport; SEIS at 5-1-1; (B) inaccurate analysis of freeway operating conditions; Id. app. C at C-32 to C-52; letter from Renée Montgelas to Dennis Ossenkop at 5; and (C) the unfounded assumption that a number of improvements will be made to the surface transportation system. SEIS at 5-1-21, Ex. 5-1-5. According to the Washington State Department of Transportation, there are no commitments from any state or local agency to make such improvements, for example improvements at the SR 518/SR 99 interchange. Letter from Renée Montgelas to Dennis Ossenkop at 4.

H. Inadequate Consideration of Impacts on Schools and Housing. SEPA requires that an EIS analyze the significant effects of the expansion of Sea-Tac Airport on community resources such as housing and schools. WAC 197-11-440(6)(e), WAC 197-11-

444(2)(b)(ii), (2)(d)(iii). The SEIS fails to meet this requirement because it dismisses the adverse effects of an expanded airport on the housing stock in communities surrounding Sea-Tac Airport and it disregards the ripple effect of decreased housing values on the schools.

I. Inadequate Consideration of Wetlands Mitigation. SEPA requires an EIS to discuss the impacts of a proposed action, and the alternatives thereto, on wetlands. WAC 197-11-440(6)(e), 197-11-444(1)(d)(i). The SEIS fails to meet this requirement because it fails to acknowledge the existence of suitable replacement wetlands within the affected drainage basin, and it lacks consideration of the cumulative effects of the additional wetlands losses in the Miller and Des Moines Creek drainage basin which already has lost a high proportion of wetlands habitat over the past twenty years as a result of development by the Port and others.

J. Inadequate Consideration of Water Quality Impacts. SEPA requires that an EIS analyze the significant effects of the expansion of Sea-Tac Airport on stormwater runoff and the movement, quality and quantity of surface water. WAC 197-11-440(6)(e), WAC 197-11-444(1)(c)(i), (ii). The SEIS fails to meet this requirement because it dismisses the effects of greatly increased stormwater runoff resulting from the addition of many acres of new paved, impervious surfaces, and it ignores the current fragile condition of Des Moines and Miller Creeks.

K. Inadequate Consideration of Alternatives. SEPA requires an EIS to discuss reasonable alternatives to the proposed action that could feasibly attain or approximate a proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation. RCW 43.21C.030, WAC 197-11-440(5). That analysis must be reasonably detailed, and provide a useful comparison of the alternatives. Weyerhaeuser v. Pierce County, 124 Wash. 2d 26, 873 P.2d 498 (1994). The SEIS fails to meet this requirement because it summarily

concludes that neither the higher demand levels forecast by the Port and FAA nor the major changes in the sequencing of the development actions in the SEIS constitute "new significant information . . . that would alter the finding associated with alternatives," or "alter the conclusions concerning the feasibility of alternative airfield options." SEIS at 3-1, 3-5. The SEIS does not provide a useful comparison of the alternatives to the third runway and their impacts. As examples, (A) the SEIS inappropriately gives no serious consideration to demand and system management alternatives; (B) the SEIS fails to consider adequately alternatives that contemplate shorter runway lengths; (C) the SEIS fails to consider off-airport alternatives, and (D) the SEIS fails to consider use of technology that could reduce poor weather arrival delays. Moreover, the SEIS fails to consider that the major change in the sequence of development actions which will delay the construction of the third runway suggest a range of landside alternatives which might be developed – without a third runway – to meet the needs of the increased numbers of passengers projected to use Sea-Tac Airport. The SEIS also fails to acknowledge that there has been a change in the project's objectives which requires an entirely new evaluation of alternatives.

#### G. RELIEF REQUESTED

38. Petitioners request that the Hearing Examiner find that the Responsible Official erred in her determination that the SEIS was legally adequate, and to direct the Responsible Official to take the following actions:

- A. Declare the Port's SEIS inadequate as a matter of law;




B. Remand the SEIS to the Port to be revised to include the following additional information: (1) a complete and accurate analysis and discussion of the construction of a third runway and associated impacts; (2) a complete and adequate discussion, comparison and evaluation of alternatives; (3) revised analysis on the air quality – using the FAA's updated Emissions and Dispersion Modeling System ("EDMS"), traffic, noise, wetlands and socio-economic impacts of the Master Plan Update and an evaluation of those impacts; (4) a complete and adequate analysis of all reasonable mitigation measures; and (5) other revisions as appropriate;


C. Require the Port to recirculate a revised SEIS for additional review and public comment;

D. Prohibit the Port from taking any action to implement the Master Plan Update until the additional required environmental review is completed; and

E. Provide such other and further relief that the Hearing Examiner deems just and appropriate.

DATED June 11, 1997.

  
\_\_\_\_\_  
Kenneth Reid  
Executive Director  
Airport Communities Coalition

  
\_\_\_\_\_  
Peter J. Kirsch, WSBA No. 14849  
Perry M. Rosen  
Thomas D. Roth  
CUTLER AND STANFIELD, LLP  
700 Fourteenth Street, N.W.  
Tenth Floor  
Washington, D.C. 20005  
(202) 624-8400  
fax: (202) 624-8410

*John W. Hempelmann WSBA # 11825 for*  
John W. Hempelmann, WSBA No. 61680  
CAIRNCROSS & HEMPELMANN, P.S.  
Columbia Center, 70th Floor  
701 Fifth Avenue  
Seattle, WA 98104-7016  
(206) 587-0700  
fax: (206) 587-2308

Gary N. McLean, WSBA No. 18992  
City Attorney  
City of Des Moines  
21630 11th Avenue South  
Des Moines, WA 98198-6398  
(206) 878-4595  
fax: (206) 870-6540

Michael Kenyon, WSBA No. 15802  
City Attorney  
City of Burien  
4311 Northeast Sunset Blvd., Suite 100  
Renton, WA 98059  
(206) 226-2426  
fax: (206) 226-5246

Londi K. Lindell, WSBA No. 14427  
City Attorney  
City of Federal Way  
33530 1st Way South  
Federal Way, WA 98003  
(206): 661-4031  
fax: (206) 661-4024

Wilton S. Viall, III, WSBA No. 5390  
City Attorney  
City of Normandy Park  
801 S.W. 174th Street  
Normandy Park, WA 98166  
(206) 248-7603  
fax: (206) 439-8674

Robert Noe, WSBA No. 19730  
City Attorney  
City of Tukwila  
4311 Northeast Sunset Blvd., Suite 100  
Renton, WA 98051  
(206) 226-2426  
fax: (206) 226-5246

David T. Hokit, WSBA No. 13512  
Highline School District, No. 401  
Curran, Kleweno & Johnson  
Kent Professional Plaza  
555 West Smith Street  
Kent, WA. 98035  
(206) 852-2345  
fax: (206) 852-9389

Attorneys for Petitioners  
City of Des Moines  
City of Burien  
City of Federal Way  
City of Normandy Park  
City of Tukwila  
Highline School District No. 401  
Airport Communities Coalition

CHRONIC NOISE AND PSYCHOLOGICAL STRESS

Gary W. Evans,<sup>1</sup> Staffan Hygge,<sup>2</sup> and Monika Bullinger<sup>3</sup>

<sup>1</sup>Cornell University; <sup>2</sup>Royal Institute of Technology, Gävle, Sweden; and <sup>3</sup>University of Munich

**Abstract**—This article illustrates the value of incorporating psychological principles into the environmental sciences. Psychophysiological, cognitive, motivational, and affective indices of stress were monitored among elementary school children chronically exposed to aircraft noise. We demonstrate for the first time that chronic noise exposure is associated with elevated neuroendocrine and cardiovascular measures, muted cardiovascular reactivity to a task presented under acute noise, deficits in a standardized reading test administered under quiet conditions, poorer long-term memory, and diminished quality of life on a standardized index. Children in high-noise areas also showed evidence of poor persistence on challenging tasks and habituation to auditory distraction on a signal-to-noise task. They reported considerable annoyance with community noise levels, as measured utilizing a calibration procedure that adjusts for individual differences in rating criteria for annoyance judgments.

Since the early 1970s, psychologists have contributed insights to the analysis of environmental problems (Ittelson, 1976). Current concerns focus on human perceptions of environmental risks (Vaughan, 1993; Wandersman & Hallman, 1993) and the role of the physical environment in human health and well-being (Baum & Fleming, 1993). The concept of psychological stress has proven a useful heuristic to conceptualize human responses to suboptimal environmental conditions (Cohen, Evans, Stokols, & Krantz, 1986; Evans & Cohen, 1987). The present article provides evidence that chronic noise exposure is associated with psychophysiological, cognitive, motivational, and affective indices of psychological stress.

Laboratory studies have shown that acute noise degrades complex task performance (Smith & Jones, 1992) and elevates neuroendocrine and cardiovascular markers of psychological stress (Evans & Cohen, 1987). Chronic noise is associated with elevated cardiovascular functioning among children (Cohen et al., 1986) and is consistently correlated with reading deficits among elementary school children (Evans & Lepore, 1993). Experimental exposure to uncontrollable noise produces learned helplessness (Glass & Singer, 1972; Seligman, 1975), and long-term exposure to community noise may contribute to helplessness among children (Cohen et al., 1986).

The present study extends these earlier findings in several respects. This is the only study to examine neuroendocrine indices of chronic stress among persons exposed to community noise. Without neuroendocrine markers, it is difficult to interpret children's elevated cardiovascular reactions to chronic noise exposure as evidence of stress (Grunberg & Singer, 1990;

Krantz & Falconer, 1995). Furthermore, although resting cardiovascular levels are an important indicator of health, cardiovascular reactivity to acute stressors may contribute more to the etiology of coronary heart disease (Krantz & Manuck, 1984).

Several measures of human performance were also assessed in the present study. Speech perception was examined because of its relevance to noise and its potential role in reading acquisition (Mann & Brady, 1988). We also examined two attention tasks, choice reaction time and visual search. There is some evidence of deficits in both working memory (Hamilton, Hockey, & Rejman, 1977) and long-term memory (Hygge, 1993) during acute noise exposure. No research has examined the generalizability of these types of findings to persons chronically exposed to noise.

Many prior studies have uncovered associations between ambient noise levels and reading deficits (Evans & Lepore, 1993). Unfortunately, all of these studies have relied on archival reading achievement scores, thereby confounding chronic and acute noise exposure. We administered a standardized reading test under carefully controlled, quiet conditions.

Children chronically exposed to noise (Cohen et al., 1986) and to crowding (Rodin, 1977) suffer increased vulnerability to learned helplessness. We designed a conceptual replication of these earlier findings, adapting Glass and Singer's (1972) after-effects paradigm for use with children. Numerous acute stressors reliably decrease persistence on challenging puzzles presented immediately after stressor exposure (Cohen, 1980; Glass & Singer, 1972). This paradigm, to our knowledge, has never been adapted for children or been used to examine chronic stress and motivation.

Although adults living in noise-impacted communities react with annoyance (Evans & Cohen, 1987), very little is known about children's affective responses to noise. We investigated this issue in two ways. First, we examined children's annoyance to a series of standardized auditory stimuli, as well as to community noise sources. This procedure enabled us to examine both raw and calibrated annoyance ratings. Calibration may enhance the sensitivity of annoyance scales given large individual differences in response criteria for assessing annoyance (Berglund & Nordin, 1990). The second way we investigated children's affective reactions to chronic noise exposure was by assessing quality-of-life ratings. Quality of life can be assessed accurately in young children (Bullinger, von Mackensen, & Kirchberger, 1994), indexing perceived physical, psychological, social, and daily functioning.

Summarizing, we employed the concept of psychological stress as a heuristic to conceptualize human responses to suboptimal environmental conditions. Our analyses focused on psychophysiological, cognitive, motivational, and affective processes in relationship to chronic noise exposure among young children.

Address correspondence to Gary Evans, Department of Design and Environmental Analysis, College of Human Ecology, Cornell University, Ithaca, NY 14853-4401; e-mail: gwe1@cornell.edu.

## METHOD

## Subjects

Participants were 135 third and fourth graders (mean age = 10.78 years) living either in a high-noise-impact urban neighborhood (24-hr Leq = 68.1 dBA; peak = 79.8 dBA) surrounding the Munich International Airport or in a quiet urban neighborhood (24-hr Leq = 59.2 dBA; peak = 69.0 dBA) in Munich. An increase of 10 dBA is experienced as approximately twice as loud. Leq is an unweighted average of sound pressure intensity. Children in the quiet, comparison areas were matched to the children in the noise-impacted area according to socioeconomic status. Households did not differ in type of occupation,  $\chi^2(4, N = 116) = 4.96$ ; parental education,  $t(122) = 1.58$ ; or family size,  $t(122) = 1.10$ . All of the children in this study first passed an audiometric screening to ensure that none had hearing loss.

## Dependent Measures

*Psychophysiological*

Blood pressure was measured with an automated blood pressure monitor (A&D Digital, UA 751) while the child was seated comfortably. Twelve-hour overnight urinary epinephrine and norepinephrine were assayed with high-performance liquid chromatography with electrochemical detection (Riggin & Kissinger, 1977), and cortisol was measured with a radioimmune assay, iodine<sup>125</sup> (Baxter Travenol Diagnostics, Cambridge, Mass.). Sample volumes were determined, and a small amount of urine was randomly extracted and frozen at -70 °C. Half of the extracted urine was also pH adjusted to further inhibit oxidation of catecholamines. See Grunberg and Singer (1990) and Lundberg (1984) for more details on utilizing urinary neuroendocrine measures as indices of chronic stress.

*Cognitive*

Cognitive measures included indices of attention, memory, and reading.

**Attention.** A signal-to-noise measure assessed speech perception against a noise background. Each child listened to a story at his or her preferred volume. This volume level defined continuous background noise (road traffic, aircraft, or broadband) played throughout the story. At fixed, random intervals, the storyteller's voice dropped 10 dBA, and the child readjusted the story volume to a comfortable listening level.

An embedded figures task required the children to search for any one of five target figures contained within complex line drawings.

In a simple choice reaction time task, the children were presented with random sequences of red and green lights and were instructed to press the key labeled "red" or "green" to indicate the color of each light. Two 8-min sequences were run. The first session was conducted in silence and the second one in aircraft noise (80 dBA Leq).

**Memory.** Each child read an interesting text. Random, intermittent broadband noise bursts (peak dBA = 80) were pre-

sented throughout the 12-min period. A day later, the child's long-term recall for the text was assessed.

Working memory span was assessed by presenting consonants at the rate of one per second. At random intervals, the sequence was stopped and the child was requested to recall, in order, as many consonants as possible. Accuracy was defined as correct recall of the consonants in serial position (Hamilton et al., 1977).

**Reading.** Children read paragraphs as well as word lists on the Biglmaier (1969) Reading Test (a valid and reliable German standardized test) under quiet conditions. Standardized scoring criteria were applied to each subscale.

*Motivation, annoyance, and quality of life*

**Motivation.** After reading the long-term memory text under noisy conditions, the children were given two line-tracing puzzles adapted from Glass and Singer's (1972) aftereffects paradigm. The puzzles consisted of animal names connected together by lines. Children "traveled" to each animal via the connecting lines but without lifting their pencils or retracing any line. They attempted the first puzzle until they solved it or gave up, and then moved on to the second puzzle. The initial puzzle was insoluble, and the index of motivation was the number of attempts to solve this puzzle. The second puzzle was soluble. The order of the two puzzles was deliberately fixed so that each child would experience success following initial failure on the first puzzle. All children solved the second puzzle. The task lasted 10 min. Attributions for failure on the initial puzzle were also assessed. These data are not included here because of space limitations.

**Annoyance.** The children provided magnitude estimates of noise annoyance (0 = not at all annoying; 100 = the most noise one could withstand without putting one's hands over one's ears) by moving their fingers along a vertical graphic scale. They were trained how to use this scale by first jumping as far as possible, which was designated as 100. They then jumped distances equivalent to magnitudes of 50, 25, 75, and 10.

Four-s noise bursts were randomly presented over headphones at 42, 54, 66, 78, and 90 dBA Leq. Broadband noise, aircraft noise, and road traffic noise were presented in separate sets. The annoyance rating for each noise burst was indicated on the vertical graphic scale from 0 to 100. The children also indicated how annoyed they were with community noise levels. Both Bandura and Schunk's (1981) original scale development and our own pilot work indicate high reliability for this magnitude estimation procedure with young children.

Nine uncalibrated noise ratings were summed to provide the community noise rating for each child. Calibrated scores were individually adjusted by the slope of the regression line fitting each child's annoyance ratings of the broadband-noise standard stimuli to his or her community noise estimates. For more details on calibration scoring procedures, see Berglund and Nordin (1990).

**Quality of life.** Quality of life was assessed by the KINDL, a valid and reliable index of the four principal domains of qual-

ity of life (physical, psychological, social, functional daily life; Bullinger et al., 1994).

**Procedure**

Testing occurred in a climate-controlled, sound-attenuated trailer at the children's school. Forty-eight-hr outdoor noise levels were monitored at the trailer 6 m above ground with a B&K Model 4426 Sound Meter.

Experimental tasks were conducted in fixed order on 2 consecutive days. Children were run individually in booths, with an experimenter sitting across a small table from each child. On Day 1, each child was first taught the magnitude estimation procedure (jumping), as described. Then an initial blood pressure reading was taken, and the child completed a brief mood scale. Then the following tasks occurred: noise annoyance; audiogram; blood pressure; mood scale; signal-to-noise measure; blood pressure; long-term memory text with noise, accompanied by blood pressure readings every 4 min; Glass and Singer aftereffects measure (line-tracing puzzles); and blood pressure. Total testing time for Day 1 was 85 min.

At the end of Day 1, parents were given a urine specimen bottle and instructions for collecting the 12-hr overnight sample. Parents were requested to collect in the container all urine the child voided that same night and the next morning between 20:00 and 8:00. This container was kept refrigerated and contained a preservative.

On Day 2, parents brought back the urine specimen container. Testing began with an initial blood pressure reading, followed by a mood scale and then a brief interview, a blood pressure reading, recall of the prose text from the day before, the standardized German reading test, a blood pressure reading, the embedded figures task, the test of working memory, another blood pressure reading, and finally the reaction time task, accompanied by blood pressure readings every 4 min. The child was then given a gift and provided the opportunity to ask questions about the study. Total time for Day 2 was 87 min.

The KINDL was administered at home prior to the laboratory testing.

**RESULTS**

**Psychophysiological**

**Neuroendocrine**

Overnight resting levels of urinary catecholamines were significantly different between the children chronically exposed to

aircraft noise and those unexposed:  $t(120) = 2.89, p < .025$ , for epinephrine and  $t(120) = 3.43, p < .001$ , for norepinephrine. (All statistical tests are two-tailed unless otherwise indicated.) As shown in Table 1, resting, baseline adrenomedullary neuroendocrine levels were elevated in association with chronic exposure to high levels of community noise. There was, however, no significant relationship between chronic exposure to aircraft noise and cortisol levels,  $t(120) < 1.0$ .

**Baseline cardiovascular**

There was a marginally significant relationship between noise exposure and baseline systolic blood pressure,  $F(1, 109) = 3.03, p < .08$ . (Degrees of freedom vary throughout because of missing data and in the case of blood pressure readings, because some readings were clearly incorrect.) Baseline diastolic blood pressure was unrelated to noise exposure,  $F(1, 109) < 1.0$ . Baseline measures were calculated by taking the average of three resting indices from Day 1 and three resting measures from Day 2. On each day, an initial resting blood pressure reading was taken to help desensitize children to the procedure. This initial reading is not included in the results reported here. The blood pressure analyses include a covariate (ponderosity) for body fat.

**Cardiovascular reactivity**

There was significantly lower reactivity in systolic blood pressure among children chronically exposed to aircraft noise in comparison to their quiet-community counterparts,  $F(1, 109) = 15.62, p < .001$  (see Table 1). Diastolic reactivity was unrelated to chronic noise conditions,  $F(1, 109) < 1.0$ . Cardiovascular reactivity was calculated by subtracting the resting baseline index from the initial blood pressure reading during the prose reading for the long-term memory task.

**Cognitive**

**Attention**

As shown in Table 2, children from noisy communities chose a lower signal-to-noise ratio than did those from quiet communities,  $t(103) = 1.78, p < .05$  (one-tailed). The type of background noise (road, aircraft, broadband) did not interact with the main effect of community noise level. Noisy children's habituation to auditory distractors generalized across different types of noise. Preferred volume level for the signal (story reading) under quiet conditions was equivalent between the two groups,  $t(103) < 1.0$ . The two noise groups did not differ in

Table 1. *Psychophysiological measures*

Variable	Quiet communities	Noisy communities
Epinephrine	368.62 ng/hr	526.36 ng/hr
Norepinephrine	766.22 ng/hr	1,108.82 ng/hr
Cortisol	3.62 µg/hr	3.75 µg/hr
Resting diastolic blood pressure	63.56 mm Hg	63.39 mm Hg
Resting systolic blood pressure	100.73 mm Hg	102.65 mm Hg
Reactivity diastolic blood pressure	-0.71 mm Hg	-0.34 mm Hg
Reactivity systolic blood pressure	1.66 mm Hg	-3.31 mm Hg

Chronic Noise and Psychological Stress

Table 2. Cognitive measures

Variable	Quiet communities	Noisy communities
Signal/noise	10.87 dB	6.81 dB
Embedded figure (number correct: 0-12)	5.60	6.10
Reaction time (quiet conditions)	440.7 ms	450.0 ms
Reaction time (noisy conditions)	438.0 ms	454.0 ms
Long-term recall (number correct: 0-25)	5.76	4.54
Reading (number of errors)		
Text	41.30	50.80
Word recognition	4.57	7.10

performance on the embedded figures task,  $r(131) < 1.0$ , nor in reaction times either under quiet ( $r(108) < 1.0$ ) or under noisy ( $r(108) < 1.0$ ) testing conditions.

Memory

On the long-term recall task, children from noisy communities performed worse than their counterparts,  $r(130) = 2.13$ ,  $p < .05$ . There were slight reductions in working memory span among children chronically exposed to noise. Only one of these differences was statistically significant (the fifth serial position from the last item presented).

Reading

As shown in Table 2, children from noisy communities had significantly more errors on the text subscale of the German standardized reading test than children from quiet communities,  $r(127) = 2.02$ ,  $p < .05$ . On the word list subscale, children from the noisy and quiet areas differed on the most difficult section of the test,  $r(125) = 2.10$ ,  $p < .05$ . The two groups did not differ on the easy and intermediate portions of the test. Children from the two groups completed equivalent portions of both the prose and the word list tests.

Motivation, Annoyance, and Quality of Life

Motivation

Children from noisy communities persisted less than children from quiet communities on the insoluble puzzle in the aftereffects task,  $r(130) = 2.35$ ,  $p < .02$  (see Table 3).

Annoyance

Children living in noisier areas were significantly more annoyed by the noise in their communities, as indexed by calibrated community measures,  $r(132) = 2.17$ ,  $p < .05$ . The raw, uncalibrated scores showed the same trend.

Quality of life

As can be seen in Table 3, trends on the KINDL index were generally in the expected direction, but only the difference on the psychological subscale proved statistically significant,  $r(124) = 2.47$ ,  $p < .01$ .

DISCUSSION

This article demonstrates the value of integrating psychological principles into the environmental sciences. Psychophysiological stress processes linked to coronary heart disease; central cognitive processes, including speech perception, memory, and basic reading skills; motivation; and emotional affect are all associated with chronic exposure to noise among children.

Our data reveal a link between chronic exposure to noise in the community and elevated neuroendocrine markers of stress along with marginally increased resting levels of systolic blood pressure. Similar small increments in blood pressure have been noted previously (Cohen et al., 1986), but these are the first of neuroendocrine markers of chronic noise exposure. We also reveal differential cardiovascular reactivity in response to task demands as a function of chronic environmental stress. Our pattern of psychophysiological stress findings (elevated baseline indices, diminished reactivity to challenge) is potentially quite important to consider in light of theories about stress and disease. Chronic stressor exposure, particularly exposure to stressors unamenable to instrumental control, may deplete coping capacity, rendering the organism less able to mobilize resources when needed to respond to acute challenges (Lepore & Evans, in press). At the same time, chronically elevated baseline indices of neuroendocrine and cardiovascular functioning

Table 3. Motivation, annoyance, and quality-of-life measures

Variable	Quiet communities	Noisy communities
Motivation (number of attempts to solve insoluble puzzle)	6.77	5.48
Calibrated annoyance (broadband noise equivalents)	62.49	67.47
Quality of life*		
Psychological (11-55)	30.20	27.85
Physical (9-45)	26.88	26.91
Social (9-45)	26.42	26.06
Functional (11-55)	30.04	29.33

\*The higher the score, the higher the quality of life.

can cause physical damage directly via changes in hemodynamics and arterial tissue structure and indirectly via suppressed immune functioning (Cohen, Kessler, & Gordon, 1995).

Several cognitive processes are associated with community noise levels. Prior studies have shown correlations between ambient noise exposure and reading levels (Evans & Lepore, 1993). We demonstrated this association with a standardized reading test administered under quiet, controlled conditions. All prior studies have utilized archival reading records of tests administered under ambient testing conditions in school and thus have confounded chronic levels of noise exposure with acute levels during the testing periods. An important policy question raised by our data is, once children fall behind in reading skills because of noise exposure, do these deficits persist, or continue to widen, with continued noise exposure? We also do not know whether noise-related reading deficits are reversible should children change their residence or if extensive sound attenuation is installed in buildings where the children spend most of their time (i.e., school, home).

The cognitive data reveal a mixed pattern of results. Long-term memory was worse among the schoolchildren from noisy communities. Asked to recall information from an interesting text they had read the day before, they performed less accurately than children from quiet communities. Similar trends have been shown in laboratory research on acute noise (Hygge, 1993). Chronic noise exposure may diminish working memory span, although the effects appear quite small.

Neither the embedded figures task nor the reaction time task revealed any associations with noise exposure. Both of these results replicate studies of acute noise (Broadbent, 1979; Smith & Jones, 1992).

Children chronically exposed to noise were less sensitive to distracting, background noise during a speech perception task than were children from quiet neighborhoods. The noise-exposed children consistently chose a lower signal-to-noise ratio when readjusting a speaker's voice against noisy background conditions. Moreover, this perceptual adaptation generalized across different noise sources. Broadband noise, road traffic noise, and aircraft noise all revealed the same pattern. Under quiet conditions, preference for volume level of the speaker's voice was the same for children from quiet and noisy neighborhoods. These perceptual adaptation findings are consistent with prior work suggesting that children cope with chronic noise exposure by tuning out auditory stimuli (Cohen et al., 1986).

Overall, the cognitive data add to the growing list of studies indicating selective impairments in cognitive functioning among children reared under poor environmental conditions. In young children, more complex, higher order skills, such as reading, problem solving, and comprehension of difficult materials, appear vulnerable to adverse environmental conditions (Cohen et al., 1986; Evans & Cohen, 1987; Wachs & Gruen, 1982). The perceptual adaptation findings also raise important questions about the long-term consequences of children's coping mechanisms. Children may cope with adverse environmental conditions by developing cognitive strategies (e.g., tuning out ambient noise) that have consequences for language acquisition and speech processing.

We adapted Glass and Singer's (1972) stressor aftereffect

paradigm to measure potential motivational impacts of chronic stressor exposure on the children. Children from noisy communities exhibited less persistence in task performance when challenged. These data conceptually replicate earlier findings utilizing a different paradigm to assess motivational deficiencies in children chronically exposed to crowding (Rodin, 1977) and to noise (Cohen et al., 1986). The potential role of adverse physical or psychosocial conditions in early motivational development is an important and largely neglected topic of psychological inquiry.

Children living in noisy communities find the levels of environmental noise where they live annoying. Both raw and calibrated, the magnitude estimations of annoyance indicate this trend. These children also rated the quality of life, particularly psychological, in their communities as poorer than did the children from quiet communities.

Although we demonstrated that the noisy and quiet communities were similar with respect to socioeconomic status, the correlational design of our study precludes causal conclusions. Nonetheless, our preliminary evidence warrants more intensive follow-up, utilizing prospective, longitudinal field studies of chronic environmental stressors and children's health and well-being.

To summarize, our results reflect a general pattern of adverse psychological stress reactions associated with chronic exposure to noise among elementary-school-aged children. The children who were studied showed no apparent auditory damage during standard audiometric examination. Both neuroendocrinological and cardiovascular indices of chronic stress were elevated; long-term memory, speech perception, and standardized reading test scores indicate deficits; and children living proximate to a major airport reported more annoyance and a lower quality of life than did children in quiet communities. These data are sobering when one considers that more than 10 million American schoolchildren are exposed to comparable noise levels and that worldwide population exposure to noise is escalating exponentially with accompanying industrial development (Suter, 1991). Psychological principles have much to offer to the conceptualization and analysis of environmental problems.

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Chronic Noise Exposure and Reading Deficits:  
The Mediating Effects of Language Acquisition

Gary W. Evans & Lorraine Maxwell  
Cornell University

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Correspondence and requests for reprints should be sent to Gary Evans, Design and Environmental Analysis, Cornell University, Ithaca, NY 14853-4401.

### Abstract

First and second grade school children chronically exposed to aircraft noise have significant deficits in reading as indexed by a standardized reading test administered under quiet conditions. These findings indicate that the harmful effects of noise are related to chronic exposure rather than interference effects during the testing session itself. We also provide evidence that the adverse correlation of chronic noise with reading is partially attributable to deficits in language acquisition. Children chronically exposed to noise also suffer from impaired speech perception which, in turn, partially mediates the noise exposure-reading deficit link. All of these findings statistically controlled for mother's education. Furthermore, the children in this study were pre-screened for normal hearing by a standard audiometric examination.

Chronic Noise Exposure and Reading Deficits:  
The Mediating Effects of Language Acquisition

Numerous studies have uncovered associations between ambient noise exposure and reading deficits among elementary aged school children. The primary objective of the present study is to determine whether this relation between noise exposure and reading is caused by deficits in language acquisition. To address this question, two language acquisition processes, speech perception and phoneme comprehension, are examined among elementary school children exposed to aircraft noise. We examine the hypothesis (see Figure 1) that the reason why chronic noise exposure interferes with the development of reading skills is because it disrupts language acquisition. There is abundant psycholinguistic evidence that reading acquisition is strongly language based. Problem readers have delayed language acquisition, and prospective studies have shown that language acquisition is a critical precursor to the development of reading skills (Mann & Brady, 1988; Wagner & Torgesen, 1987).

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Insert Figure 1 about here

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A secondary objective of this study is to ascertain whether the link between noise exposure and reading deficits is the result of chronic or acute noise exposure. Prior studies of chronic noise exposure and reading have relied upon archival indices of reading achievement. Standardized reading test scores

emanate from testing sessions that have occurred under ambient acoustic conditions. Therefore children from elementary schools located in noisy areas completed these standardized testing batteries under noisy conditions (e.g., while airplanes were flying overhead). Thus we cannot determine whether the positive associations uncovered between ambient noise exposure and reading in prior studies were the result of acute interference during the actual testing sessions, or whether the noise-related deficits in reading resulted from altered cognitive processing strategies due to chronic exposure to noise.

Numerous studies have uncovered associations between noise exposure and reading deficits (see Evans & Lepore, 1994, for a review). These findings include a dose response function between noise exposure and reading deficiencies (Green, Pasternack & Shore, 1982) and a noise-reduction intervention in a school that eliminated previously found deficits in reading ability (Bronzaft, 1981; Bronzaft & Mc Carthy, 1975). Household noise has also been correlated with basic cognitive abilities among one year olds (Wachs & Gruen, 1982). Furthermore, the negative impacts of school noise levels on reading acquisition were exacerbated by home noise exposure (Cohen, Evans, Stokols & Krantz, 1986; Lukas, DuPree & Swing, 1981) and appeared more severe among children with poorer reading aptitudes (Maser, Sorensen, Kryter, & Lukas 1978).

In the most thorough study of noise and reading to date, Cohen, Glass and Singer (1973) measured reading and auditory

processing among children living on different floors of an apartment building located over a busy highway. The higher the floor level children resided on (i.e., lower noise levels), the better their reading scores. Furthermore, the longer the duration of noise exposure, the wider the gap in reading scores. Children residing in quieter apartments also more accurately discriminated between similar sounding words (e.g., goat - boat) than their noise exposed neighbors. Of particular interest to the present study, Cohen and colleagues investigated whether the noise-related reading deficits could be explained by auditory discrimination ability. After statistically controlling for parental education and income levels, they found that the noise - reading linkage was largely explainable by auditory discrimination. To our knowledge this is the only study to directly test an underlying mechanism for noise-related deficits in reading abilities. Cohen and his colleagues reasoned that children chronically exposed to loud noise would cope with the interfering and annoying impacts of noise by learning to tune out auditory stimuli. Although this coping strategy is adaptive on the one hand, it could become maladaptive if overlearned. What if children learned to not only tune or filter out unwanted sounds such as transportation noise but also developed a more generalized strategy of ignoring auditory stimuli, including important information such as speech? Consistent with Cohen et al.'s (1973) test of the tuning out hypothesis, Cohen et al. (1986) found that noise-exposed children relative to their quiet

area counterparts had more difficulty determining the optimum signal to noise ratio in a listening task in which a story was embedded in white noise. Evans, Hygge and Bullinger (1995) also found that noise-exposed children were less accurate in adjusting background, broad band noise to maximize clarity when listening to a story. Although these findings all point toward the potential role of auditory discrimination in accounting for the noise-reading linkage, only Cohen et al (1973) directly tested this relation. However, the two studies by Cohen and colleagues confounded chronic and acute noise exposure in assessing reading performance, since archival indices of standardized reading test batteries were employed as the reading ability index.

The psycholinguistic literature indicates that auditory discrimination is a relatively minor component of learning to read. Much more important is speech perception (Brady, Shankweiler & Mann, 1983) generally, and phoneme recognition specifically (Mann & Brady, 1988; Wagner & Torgesen, 1987). Brady and colleagues (1983), for example, showed that the recognition of speech significantly discriminated between good and poor, third grade readers. Children listened to words that had been masked with digitally matched signals. Good readers were significantly better at this task than were poor readers. Words presented without a mask did not discriminate between good and poor readers. Of particular interest to the present study, sound perception did not discriminate between good and poor readers. In the sound perception task, the same sample of children



listened to sounds that had been masked. Instead of words, however, the auditory stimuli were common environmental sounds (e.g., door closing, dog barking). Performance on this task was unrelated to the child's reading status. These results are important because they specifically point toward the processing of speech as opposed to more general, auditory information processing as the key element in the reading acquisition process.

Additional psycholinguistic work has focused on specific elements of speech, critical to the acquisition of early reading skills. A particularly promising area of inquiry has been phoneme processing. Phonemes are the basic unit of spoken language, represented by consonant and vowel-sized segments. Words are composed of sequences of phonemes that must be recognized in order to understand language. The word 'cat' consists of three phonemes that must be processed in order to recognize this word. Phonological recognition performance predicts subsequent reading ability; phonological training enhances reading acquisition; and reading performance is partially mediated by phoneme recognition (Mann & Brady, 1988; Wagner & Torgesen, 1987).

In the present study, we incorporated two language acquisition processing paradigms from the psycholinguistic literature that have been shown to be robust in accounting for reading acquisition. Children from noisy and quiet schools were assessed on a phoneme recognition task and on a speech processing task, along with a sound processing, control

condition. We also incorporated the methodological strategy of assessing children's reading skills with a standardized test under carefully controlled, quiet conditions. Given the importance of knowing whether chronic or acute noise exposure is responsible for the well established positive association between ambient noise exposure and reading ability, this methodological issue is important.

We hypothesized that chronic noise exposure would be positively correlated with reading deficits and that this association would, in turn, largely be accounted for by underlying deficiencies in language acquisition (see Figure 1). We also predicted, consistent with the psycholinguistic literature, that the expected adverse impacts of chronic noise exposure on reading skills would be specific to speech and not accounted for by general auditory processing. Speech and phoneme perception, respectively, and not sound perception would be significantly correlated with chronic noise exposure.

#### Method

##### Subjects

One hundred and sixteen first and second graders (53% female) from two elementary schools participated in the study. The median household income of the sample was \$30,000. Mother's educational level ranged from grade school to some graduate work with the average being high school completion. Father's education level was not included in the analyses because of insufficient data. Preliminary analyses substituting mean father education

levels for missing values did not alter any of the conclusions herein. Department of Labor standard occupational codes (single digit) were utilized to classify mother and father's occupation. Chi square analyses revealed no differences in the proportion of mothers who were professional, clerical/sales, service workers, transportation workers or unemployed  $\chi^2(4, n=74) = 6.99$ . Father's occupation was not included because of insufficient data. Both schools are predominantly Black (82% noise school; 97% control school). Only children whose first language was English were included in the sample. The average years in residence did not differ between the noise ( $\bar{x}=6.28$  years) and control schools ( $\bar{x}=7.47$ ),  $t(112) < 1.0$ .

#### Procedures

An elementary school within the 65 Leq flight contour of a major New York Metropolitan airport was selected as the target school. Leq represents the average sound pressure level measured in one second intervals over a specified time period (24 hours in this case).<sup>1</sup> An Leq of 65 means that the average level of sound intensity for this geographic area over a typical 24 hour period was 65 decibels (A scale). Leq is a widely utilized metric for assessing chronic noise exposure in the ambient environment. Peak dBA during frequent overhead flights exceeded 90 decibels. The number of overflights during school hours averaged one flight per 6.6 minutes. A control school located in a quiet neighborhood was selected with the assistance of the New York City Board of Education. All of the children attending the noisy school in our

sample also resided in the 65 Leq or louder contours. None of the children attending the quiet school lived within a 65 Leq or louder noise contour.

The control school was closely matched to the noise exposed school on percentage of children receiving subsidized school lunches, ethnicity, and the percentage of pupils with English as a second language.

All participants were initially screened by a certified audiologist to ensure normal auditory thresholds. All testing occurred under quiet conditions. Each child was tested individually while wearing Telephonic TDH-39P headphones fitted with Audiocups. This configuration achieves substantial sound attenuation exceeding 20 decibels. A normal speaking voice at typical conversation distance is barely discernable when the headphones and audiocups are worn.

All children were tested in one, 20 minute testing session. They were tested individually by a female college student in their school. Children wore the headphones and Audiocups throughout the testing procedure. Following participation each child was given a small gift and praised for her/his performance.

Dependent measures. Reading skills were assessed with two subscales of the Woodcock Reading Mastery Test (1987). Word Identification requires the child to identify isolated words. As the child moves through the test, the words become less and less common. Examples of early words include: cat, stop, come; with the next group including play, sun, blue, and the most difficult

set including words like: heterogeneous, cygnet, expostulate. For an answer to be scored correct, the child must produce a natural reading of the word within five seconds. The level acquired is determined until six consecutive items are failed. Word Attack requires children to read nonsense words. This test measures ability to apply phonetic strategies to realistic, yet unknown letter combinations. Letter combinations advance from simple consonant-vowel combinations (e.g., dee ift poe) to eventual, multisyllabic nonsense words (e.g., cigbet, bafmotbem, quiles). The test continues until the child misses six nonsense words in a row. The test administrator was trained on an audiotape supplied with the Woodcock test.

Each of the Woodcock reading subscales has undergone extensive psychometric development and has American normative data available. Children's raw scores were transformed to standardized scores based on Woodcock grade norms. Reading ability was operationalized as the sum of the two standardized scores. These two particular subscales were chosen because they are valid indicators of reading ability (Woodcock, 1987) and because of their use in psycholinguistic research to distinguish between good and poor readers (Brady et al., 1983).

Language acquisition processes were assessed by two paradigms. Speech perception was measured by exposing children to 12, high frequency words (Carroll, Davies, & Richman, 1971), half of the words began with stop consonants (e.g., /b/) and half with fricatives or affricates (e.g., /s/). The words were recorded by

a phonetically trained male speaker. The words were then noise-masked by multiplying the digitized waveform of the stimulus by the digitized waveform of another, randomly chosen word. This technique preserves the time varying amplitude of the speech signal. Each digitized word and its amplitude matched mask were added linearly to yield a 0 dB signal to noise ratio (Schroeder, 1968). The masked words were presented at a comfortable, listening volume. Each word was experienced as the correct sound embedded in thick static. Each response was scored as correct or incorrect. These masked speech stimuli were part of a larger testing battery used by Brady and colleagues (1983) in their study of language processing and reading. Brady and colleagues found the most discrimination between good and poor readers utilizing the high frequency, noise-masked speech perception stimuli.

Each participant was instructed to repeat the word he/she heard. Children were instructed to guess if unsure. The test sequence was preceded by two practice trials in which feedback was given. During the test no feedback was given. The twelve test words were child, sleep, breath, knife, speech, road, crowd, scale, front, chance, plant, and clouds.

In order to determine whether ambient noise exposure produces problems specific to speech or more general auditory processes, a control condition consisting of noise masked sounds was also included (Brady et al., 1983). Twelve familiar environmental sounds were recorded, digitized, and then masked.

Because the sound characteristics of nonspeech differed in significant ways from speech, a broad band mask (0 - 10kHz) was utilized. The 0 dB signal to noise mask employed for speech did not sufficiently mask the stimulus whereas a -2 dB, signal to noise ratio did. See Brady et al. (1983) for more details. The sounds presented were a piano, clock chime, door shutting, artillery guns, cat meowing, orchestra, train whistle, dog barking, whistle, drums, baby crying, and wedding music.

Sound perception was scored as in Brady et al. (1983) with 0 assigned if the response bore no relation to the stimulus; 1 if the response reflected the nature of the sound although wrong in detail (e.g. coughing for talking); 2 if the response was accurate but nonspecific (e.g., "music" for an organ playing the wedding march), and 3 was assigned when the correct response was given.

Finally, an embedded phoneme test (Fowler, 1990) was given to each participant. The child was presented with an initial target word (e.g. "fan") and asked to choose one of three words following that had the same initial sound located some place in the word (e.g., "camera", "dinosaur", "butterfly"). Pictures accompanied the target and comparison words to ensure that phoneme perception and not short term memory was involved in the task. The ten target words were wig, chair, van, up, run, game, ice, tie, leg, and juice. Feedback was given on a practice trial, and then the test items were presented without feedback. Each response was scored as correct or incorrect.

## Results

### Analytic Strategy

Our analytic strategy was designed to address two principal questions: (i). Is there a relationship between chronic noise exposure and reading skills among young children? (ii). Assuming an affirmative answer, can we explain why/how noise impacts reading? Specifically, we hypothesized that noise interferes with language acquisition which, in turn, will account for the expected negative association between noise exposure and reading ability (Figure 1). In order to examine the relations among ambient noise exposure and reading, and language acquisition, respectively, several steps are necessary. First, the zero order correlations are depicted among the relevant variables along with potential statistical controls (e.g., parental education). In order to evaluate the main and intervening effects of noise on reading and language acquisition, respectively, a series of regression equations are calculated (Baron & Kenny, 1986; Evans & Lepore, in press). The initial analysis regresses reading scores onto the control variable(s). This test is the same as a correlation coefficient or a t test, since noise/quiet is dummy coded as 0 or 1. In the second equation, reading scores are regressed onto noise, controlling for potentially confounding background factors such as mother's education. In the third equation, we investigate the potential mediational status of language acquisition. Equation 2 is replicated, except a hypothetical mediator is forced into the equation prior to noise.



The mediating role of language acquisition would be shown by the previously significant association between noise and reading (Equation 2), becoming either nonsignificant (full mediation) or significantly smaller (partial mediation) in Equation 3.

#### Simple Correlations and Descriptives

Inspection of Table 1 reveals several important facts. First, the principal hypothesis of this study is supported. Chronic noise exposure is significantly correlated with reading scores ( $r = -.58$ ,  $p < .001$ ). Second, speech perception meets two necessary prerequisites to function as a mediator of the chronic noise - reading linkage. Chronic noise exposure is correlated to speech perception ( $r = -.33$ ,  $p < .001$ ), and speech perception and reading ability are also correlated ( $r = .27$ ,  $p < .01$ ). Table 1 also indicates that sound perception, which was a control measure to show that the noise effects are specific to speech and not to general auditory functioning, operated as expected. Sound perception is not correlated to noise levels ( $r = .11$ , n.s.) or to reading ability ( $r = .15$ , n.s.). Unexpectedly, the embedded phoneme task is unrelated to either noise levels or to reading scores. Therefore the embedded phoneme test cannot be operating as a mediator of the noise-reading linkage.

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Insert Table 1 about here

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Data shown in Table 1 also indicate the need to statistically control for mother's education in the inferential

analyses below. Note the mother's educational levels are correlated both with noise exposure and with reading ability. It should also be noted that income is not correlated to noise exposure or to reading. The former was expected since the quiet community was selected to match the noise-exposed community on income levels. Our matching procedure was apparently successful.

The means and standard deviations for reading, speech perception, sound perception, and embedded phonemes are shown in Table 2. Consistent with the zero-order correlations, higher noise levels are associated with poorer reading and speech perception but are unrelated to sound perception or embedded phoneme performance.

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Insert Table 2 about here

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#### Mediational Analyses

Table 3 depicts the results of three regression equations. Line 2 in Table 3 shows that the linear association between noise exposure and reading found in Table 1, is not attributable to the confounding factor of mother's education. Noise remains as a significant predictor of reading scores after statistically controlling for mother's education. This is shown in Line 2 of Table 3 by the F test for delta R squared for noise. Noise significantly increases the amount of variance explained in reading ability over and above that explained by mother's education. Noise levels are a significant predictor of reading

ability in elementary school children, independently of mother's educational levels.

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Insert Table 3 about here

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Line 3 in Table 3 indicates that speech perception functions as a partial mediator of the noise-reading effects. Some of the covariance between noise exposure and reading, after controlling for mother's education, can be accounted for by speech perception. To put it differently, noise exposure affects speech perception which, in turn, affects reading ability (see Figure 1).

Evidence for partial mediation is based upon a comparison of the raw beta weight for noise in Line 2 to the raw beta weight for noise in Line 3, of Table 3. The reduction in the magnitude of the raw beta weight ( $39.44 - 24.44$ ) is greater than one standard deviation of the original, raw beta weight. Partial mediation is calculated by taking 1.65 times the standard error of the zero order beta weight ( $1.65 \times 5.79$ ). This total is exceeded by the shrinkage in the beta weight for noise when speech perception is forced into the regression equation prior to the noise term. Noise when residualized for speech perception predicts significantly less variance in reading in comparison to when noise alone is utilized as the predictor. As expected, speech perception is significantly related to reading scores,  $b=4.86$ ,  $p < .01$ , after controlling for mother's education. For

further reading about partial mediation see (Evans & Lepore, in press; Waldron & Lye, 1990).

Noise remains, however, as a significant contributor to reading even after partially out speech perception. Total mediation would have been indicated by noise no longer having any significant, independent effect on reading. Clearly this is not the case as the delta R square for noise in Line 3 of Table 3 remains significant, even after partialling out speech perception. Language processing in the form of speech perception significantly contributes to the impairment of reading skills among children chronically exposed to noise. Nonetheless, other factors in the link between chronic noise exposure and reading impariments remain unspecified.

#### Discussion

Children chronically exposed to aircraft noise have poorer reading skills than children attending elementary school in a quiet neighborhood. This finding replicates several previous studies showing an association between chronic noise exposure and reading acquisition (Evans & Lepore, 1994). The present study makes two additional contributions to the literature on noise and reading. First because children were given a standardized reading test under carefully controlled, quiet conditions, we have shown that the association between noise exposure levels and reading is due to chronic exposure and not acute interference by noise during the actual testing session. Only one prior study of noise and reading has also included this important methodological

control (Evans et al., 1995). Chronic noise exposure is linked to reading deficits among children. This association has been demonstrated in two different studies, utilizing two different reading test batteries. Evans et al. (1995) study was conducted in Germany and utilized a different reading evaluation instrument.

The second important contribution of the present study is our investigation of language acquisition as an underlying, intervening mechanism to account for the noise - reading deficit link (see Figure 1). We find partial support for our hypothesis. Ambient noise exposure is associated with impairments in speech perception which, in turn, are correlated with reading development. As shown in Tables 1 and 3, speech perception functions as a mediator of the relation between noise exposure and reading development. Results from the control protocol of sound perception also indicate that this intervening effect of speech perception is language based. Speech and not sound perception mediates the relation between ambient noise exposure and reading acquisition among young children.

This intervening process, however, only reflects partial mediation. Speech perception does explain a significant amount of the covariation between noise exposure and reading deficits, but a significant amount of that covariation remains unaccounted for (see Table 3). In other words, speech perception explains some but not all of the relation between noise exposure and reading development in early readers.

We chose to examine speech perception as a mediator of the relation between noise and reading for two reasons. First, prior research and theorizing had suggested that perhaps the reason why noise exposure is harmful to reading acquisition is because noise-exposed children, in their efforts to cope with ambient noise, learn to indiscriminantly tune out auditory signals, including speech (Cohen et al., 1973). Second, psycholinguistic research had indicated the critical importance of speech perception in reading acquisition (Brady et al., 1983). Our findings that speech but not sound perception help account for the noise-reading link are consistent with the psycholinguistic research. Our results also raise questions about the overgeneralization or tuning out hypothesis (Cohen et al., 1973). Children chronically exposed to noise do appear to have altered auditory processing, but the effects seem specific to language based stimuli, not auditory stimuli in general. As shown in Tables 1 and 2, there is no association between noise exposure and sound perception. Recall also that good and poor readers do not differ in general, auditory processing skills--speech but not sound processing discriminates between good and poor readers (Brady et al., 1983; Mann & Brady, 1988).

The finding of partial mediation also raises the question of what other underlying factors might intervene between ambient noise exposure and reading. In addition to showing that auditory perception in general is not a major intervening factor, our data suggest that phoneme recognition is unaffected by chronic noise

exposure and therefore does not function as an underlying mechanism that could account for the association of chronic noise exposure with reading deficits. We are not confident about this latter conclusion, however, since phoneme recognition was also unrelated to reading (see Table 2). This finding contradicts several previous studies linking phoneme recognition with reading (Mann & Brady, 1988; Wagner & Torgesen, 1987). We utilized a subset of an embedded phoneme test developed by Fowler (1990) that significantly discriminated between good and poor readers. Conceivably our shorter test was less sensitive than the original, although our scale had good internal consistency ( $\alpha=.78$ ), indicating adequate reliability of measurement. In any case, we think it prudent to keep the question open whether phoneme recognition is a significant intervening process that might also explain the noise-reading deficit relation.

Another important limitation in this field study is the lack of random assignment of children to schools which precludes complete confidence in attributing the differences uncovered to noise alone. The possibility always remains with a static, correlational design that some other variable(s) are behind the apparent noise-reading relationship shown. Although the most plausible self-selection alternatives (income, education) have been eliminated, our results need to be replicated in a prospective, longitudinal design.

Although our focus and other theoretical explanations of noise and reading have emphasized cognitive processes, we believe

interpersonal, social processes should also be considered. For example, several studies have documented that in noisy schools actual teaching time is disrupted (Bronzaft & Mc Carthy, 1975; Crook & Langdon, 1974). Moreover, teachers in noise-exposed classrooms report considerable annoyance and cumulative fatigue from their efforts to instruct under the difficult, interfering conditions created by ambient noise. One could also imagine that parents residing in noisy neighborhoods might be less apt to read aloud to their children, and perhaps the frequency and/or duration of oral communications are curtailed. Thus the behaviors of primary caregivers might shift in reaction to chronic noise exposure. Noise is also a documented irritant, straining interpersonal relationships and on occasion elevating overt hostility and aggressive behaviors (Cohen & Spacapan, 1984). Any one of these social psychological adjustments to ambient noise conditions, let alone in combination, could have unintended but adverse consequence on children's development. Thus in considering how suboptimal, physical environmental conditions adversely impact development, we need to also consider more complex pathways that might include alterations in the micro environmental systems of children (Bronfenbrenner, 1979).

Although the primary health concern with chronic noise exposure is hearing damage, a growing body of literature, highlights an array of nonauditory effects of chronic noise exposure, especially among children. Psychophysiological changes indicative of chronic stress, elevated annoyance and irritation,

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motivational deficits related to learned helplessness, and alterations in cognitive development and reading achievement, have now all been well documented (Cohen et al., 1986; Evans & Lepore, 1994; Evans et al., 1995). It is important to recognize that these advances in knowledge of the probable effects of chronic noise exposure on children have been accompanied by exponential increases in worldwide, ambient noise levels that are an unfortunate byproduct of economic development, particularly prevalent among economically underdeveloped countries (Suter, 1991). This research area is now at a stage where more rigorous, prospective longitudinal studies are necessary, along with more analyses of underlying cognitive and social processes than can account for the adverse effects of chronic noise exposure on human health and development.

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READING



LANGUAGE  
ACQUISITION



NOISE

## Figure Caption.

Figure 1. Schematic representation of the language acquisition mediation hypothesis.

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Table 1. Zero order correlation results.

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	Noise	Reading	Speech Percep.	Sound Percep.	Embed. Phon.	Mother Educ.	Income
Noise		-.58***	-.33**	.11	-.05	-.37**	-.12
Reading			.27*	.15	.15	.41**	.23
Speech percep.				.14	.07	.12	.18
Sound percep.					-.17	.05	-.14
Embed. phon						.10	.03
Mother educ.							.52***

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\*p < .05, \*\*p < .01, \*\*\*p < .001

Table 2. Means (standard deviations) of dependent measures

---

	Noise (n=58)	Quiet (n=58)
Reading	191.2 (31.4)	235.1 (30.5)
Speech perception	1.5 (1.6)	2.7 (1.9)
Sound perception	21.1 (3.4)	20.0 (5.3)
Embedded phonemes	5.8 (1.9)	5.9 (1.7)



Table 3. Mediation analyses of noise and speech perception on reading scores.

Variable	$\Delta R^2$	F for $\Delta R^2$	Raw Beta	Standard Error Raw Beta
Mother ed	.07	9.11* (1,115)	6.29	3.58
Noise	.27	46.46** (2,114)	-39.44	5.79
Noise with additional control for speech perception	.22	37.41** (3,113)	-24.44	6.11

\*p < .01, \*\* p < .001

1.  $L_{eq} = 10 \log_{10} 1/n \left( \sum_{i=1}^n 10^{L_i/10} \right)$ . Log is base 10.  $i=1$  is the first second,  $i=n$  is the last second.  $L$  is the sound pressure level of each one second interval during the 24 hour time period.

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REPLY TO COMMENTS BY THE FAA AND THE PORT OF SEATTLE ON  
"REVIEW OF THE FAA'S REVISED AVIATION FORECASTS FOR  
SEATTLE-TACOMA INTERNATIONAL AIRPORT"

Dr. Clifford Winston  
June 1997

The FAA and the Port of Seattle have responded to my critique of their report. My critique focused on issues that were empirically refutable and, indeed, I developed my own statistical model to test whether airport demand was influenced by capacity. I found that airport demand was influenced by runway capacity and that the FAA's failure to account for this relationship caused their forecasts of aircraft operations and passenger demand at Sea-Tac with the new third runway to be underestimated. The FAA and the Port have not tried to respond to my work by developing their own statistical model which could be evaluated. Instead, they make empirically unsubstantiated statements to support their work and purport to refute my model based on erroneous technical criticisms.

The FAA and the Port first claim that they have already accounted for the demand that would be stimulated by an additional runway. This is simply not true. Their position continues to be that an additional runway will not stimulate demand. Indeed, they attempt to explain why demand will not be affected by an additional runway. They assert -- without providing empirical evidence -- that passenger demand will not be significantly affected by an increase in travel time. They assert -- without providing empirical evidence -- that competition at Sea-Tac is at its maximum level and would not be increased if additional capacity were available for carriers to increase their operations. They assert -- without providing empirical evidence -- that the correlation between enplanements and operations has broken down since the early 1990s.

These are testable assertions, but the heart of the matter is still whether an additional runway will increase passenger demand and aircraft operations. The FAA and the Port do not offer their own test of this proposition. Instead, they claim that my finding that runway capacity does have a positive effect on operations and passenger demand simply reflects the fact that airports with higher demand build additional runways. However, I anticipated this criticism in my initial report

and pointed out that there is a lag time between runway construction and demand, and, therefore, that the correct direction of causality is that capacity causes demand.

The FAA and the Port conclude their comment with two technically misleading criticisms of my analysis. They first claim that my findings are suspect because I find that average fares have a positive effect on demand and operations, and that this is the incorrect sign (fares should be inversely related to demand and operations). In fact, we do find that fares bear an inverse relationship to demand and operations for our largest and therefore most reliable sample of 150 airports, and find that this effect is statistically significant. The positive relationship we find is for our smaller and thus less reliable samples (50 and 100 airports), and moreover this effect is statistically insignificant -- implying that it is misleading to place an interpretation on the sign of the coefficient. Second, the FAA and the Port claim that the coefficient of variation (R-squared) for our model, which includes the number of runways, is much lower than their original model, which does not include the number of runways. This comparison is statistically improper. Our model is a *cross-section* model of airports. The R-squared we obtain for our cross-section model is quite good. *Time series* models, like the one prepared by the FAA and the Port, obtain notoriously high R-squares simply because one can do a good job of explaining the present by the past (this is not possible to do in a cross-section model). The time series model used by the FAA and the Port, however, is not able to analyze the relationship between runway capacity and demand. We must, therefore, use a cross-section model for this purpose. The R-square for our cross-section model will be increased (by definition) because we have added the number of runways to our specification.

The FAA and the Port have not come to terms with my original statistical analysis by conducting their own analysis or developing technically valid criticisms of my work. Thus, none of the comments that they have made attack the fundamental validity of my analysis or alter any of my original conclusions.

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**RCAA**  
Regional Commission  
on Airport Affairs

19900 4th Ave SW  
Normandy Park, WA 98166  
(206) 824-3120  
FAX (206) 824-3451

June 23, 1997

5

Mr. Dennis Ossenkop  
Northwest Mountain Region FAA  
1601 Lind Avenue Southwest  
Renton, WA 98055-4056

REC'D ANM-610  
PLAN; PGM, & CAP BR

JUN 23 1997

ANM-610 

By Hand Delivery

Dear Mr. Ossenkop:

Please find attached the original of the replies of the Regional Commission on Airport Affairs (RCAA) to the responses of the Federal Aviation Administration and Port of Seattle to our organization's comments on the draft Supplemental Environmental Impact Statement (SEIS) for the pending Master Plan Update for the Seattle-Tacoma International Airport.

We are advised that these replies may properly be filed with you (despite the statement in the final SEIS that only replies dealing with the air quality conformity analysis were acceptable).

Please continue to send us copies of all the official environmental review documents as they are issued.

Sincerely,



Len Oebser, President  
RCAA

AR 013260

JUN 23 1997

ANM-610 \_\_\_\_\_

## Introduction

These are the replies of the Regional Commission on Airport Affairs (RCAA) to the responses of the U.S. Federal Aviation Administration of the U.S. Department of Transportation (FAA) and the Port of Seattle (POS), to the comments of RCAA on the draft Supplemental Environmental Impact Statement (dSEIS) for the Seattle-Tacoma International Airport Master Plan Update (MPU) (which is to say the third runway & related expansion projects). The referenced responses are found in Appendix F, 2 Final Environmental Impact Statement (13 May 1997) (hereafter referred to as fSEIS).

General comments (Part I) will be followed by a listing & brief discussion of RCAA comments that were ignored in Appendix F (Part II), and a discussion of responses that missed the thrust of specific comments, together with comments on particular responses (Part III). These Parts are followed by a Conclusion., in which the significance of the unanswered and misanswered comments & accompanying responses will be drawn together, under major topic headings.

In briefest summary, our review of the fSEIS & the official responses to our prior comments leads to the conclusion that the fundamental flaws in the dEIS, FEIS, & dSEIS persist in the fSEIS. None of these documents, and not all of them taken together, provide an accurate or reliable survey of the important environmental impacts that can reasonably be expected to occur during construction or during operation. Impacts having been analyzed incompletely, mitigation measures suggested in the FEIS & fSEIS are also insufficient.

A note about abbreviations, terms of art, & citation style: First, we appreciate the extended glossary in the fSEIS, found at 1 fSEIS 6-7; absence of glossaries is a recurring problem in environmental reviews (like absence of indices). We adopt the usages of this fSEIS glossary. Second, we deviate from the abbreviations used in the fSEIS (see 1 fSEIS 6-1 - 6-5), as follows: DEIS means the draft environmental impact statement for the pending Master Plan Update for the Seattle-Tacoma International Airport; dSEIS means the draft supplemental environmental impact

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statement for the same project; FEIS means the final environmental impact statement for the Master Plan Update for the Seattle-Tacoma International Airport; fSEIS means the final supplemental environmental impact statement for the same project; LDN refers to noise metric referred to in the fSEIS as DNL; MPU means the pending Master Plan Update for Seattle-Tacoma International Airport; NEM means noise exposure map; RCAA means the Regional Commission on Airport Affairs. Our citation style to the various EISes is the familiar legal style: volume/name-of-document/page number, followed as need dictates with a more specific reference. Thus "1 fSEIS 6-7" refers to vol. 1 of the Final Supplemental Environmental Impact Statement at p. 6-7.

## Part I -- General Comments

General comment 1: The comments of the Regional Commission on Airport Affairs were misrepresented in Appendix F, fSEIS, as being only the personal comments of Len Oebser. Authorship should have been attributed to the organization, not to the officer who signed the transmittal letter covering the organizational comments in his representative capacity.

We notice that the same trivializing technique was employed in Appendix F with respect to several other organizational comments, such as those of the Highline School District, the City of SeaTac, the Seattle Community Council Federation (misleadingly represented as being no more than the personal comments of Jorgen Bader, the President of that group), the Airport Communities Coalition (repeatedly), & the North-East District Council.

The public should be aware that the commenters whose comments might seem critical were in more than a few instances responsible & well-established organizations, including governmental bodies. (This is to take nothing away from either the bona fides or hard-won expertise of individual commenters.) It is inappropriate for the FAA & POS to try to make it seem that on the uncritical side of airport expansion are the solid organizations, with nothing but a scatteration of named individuals raising potentially troublesome questions. How petty! How unworthy of the government of the United States of America.

General Comment 2: The organization of the responses to the comments on the dSEIS was much more helpful than the comparable organization in the FEIS. The index of comments, pp. F-4 through F-6, begins to approach the definition of an index., and by specifically referring in each topically-organized response to the commenters that addressed that topic, the author(s) much facilitated the tracking of comment and response, something impossible to do in the FEIS. We appreciate the care taken in this respect, while regretting that requests as far back as the Scoping Comments for true indices were not complied with in earlier documents in this long series. (See our comment 7(D)-6, found at 3 fSEIS G-213.) The appearance in the FEIS of a one-page alphabetized table of section



headings, mislabelled as an index, without inclusion of comments on the dEIS or the FAA/POS responses thereto, referred to Response 1-G, 2 fSEIS F-11, did not satisfy the definition of, or requests for, an index. (One is reminded in this particular of Mr Lincoln's riddle: Mr L. If you call a dog's tail a leg, how many legs does a dog have? A bystander. Five. Mr L. Wrong! A dog has only four legs and calling a tail a leg doesn't make it one. The same principle applies to the non-index in the FEIS.)

General Comment 3: For no stated reason, Appendix F failed to address numerous comments of this organization, which will be discussed in some detail below. Something is amiss when more than a score of comments is simply left unaddressed. It is suggestive that the fSEIS failed to disclose such failures.

General Comment 4: As will appear below, in more than a few instances, the printed responses failed to meet the thrust of the comments. We cannot, of course, say why this happened. It is suggestive that in every instance the failure thus left unaddressed a critical comment.

General Comment 5. It would have been better to have taken more care in presenting comments in proper page order. The opening pages of our comments were presented in Appendix F in this order: 1, 2, 3, 4, 8, 5, 6, 7, 9, 10, 11. Most readers will not have been prepared for so eccentric an ordering & will have found the pagination a significant distraction.

General Comment 6. In our considered judgement, there is something very seriously flawed in the approach taken to documentation in the FFAPOS environmental impact statements.

\* The EISes do not present the materials to support the sweeping and conclusory statements that so often are found when the going gets tough (so to speak). The EISes do not contain bibliographies. The authorities deemed controlling are almost never published materials but instead are closely-held documents prepared by paid consultants or Port staff for the specific purpose of justifying this project. The FEIS for the MPU, for example, rests upon a host of technical reports not distributed to the public or to organizations with known interest in the matter. Those technical reports are not included in the FEIS (though in our judgement

they should be), and in at least some instances were not printed up and available until after the EIS document had been issued. We believe that in some instances the technical reports did not become available till after the expiry of the announced comment period.

\* As another example of the fast-and-loose use of documents, we point to Response 2-AC, which talks about three different important documents that in truth are integral parts of the environmental-review process but are not generally distributed or available. The existence of one of these documents did not come to our attention until perusal of the cited Response. These documents, all of which should be published in some or another final EIS are: Seattle-Tacoma International Airport Third Dependent Runway Preliminary Engineering Report (POS: 1995), POS financing plan (February 1997), and a POS "Net Present Value evaluation", date not given.

It seems that every time that one gets close to the base line on an issue, a question, there suddenly appears some other, previously-unknown, document that supposedly gives the necessary detail, or which was officially accepted way-back-when (without public involvement) and now constitutes the unchallengeable basis for action, or which now interprets things in a new way.

The release of the actual documents to interested persons, the lodging of these documents in public libraries (the level of performance here is miserably poor), the revelation of their actual existence, all is grudgingly done, all belatedly, all incompletely. The people in charge seem to have forgotten that this is supposed to be a public process. We cannot help but think how difficult all this must be for persons without organizational support, how frustrating this begrudging process must be to responsible public officials who are trying to understand what is to be done to their cities, their schools, their hospitals, and who surely are much inconvenienced by being required to trudge, hat in hand, to Renton to read (but not to be allowed a copy of their own) the semi-secret documents that the EISes rely on. The situation is not improved any by having most of the serious work done by paid (& privily-instructed) consultants, from other jurisdictions, unavailable for private consultation except on a per-fee basis, who produce unreviewed papers, usually without authorship ascribed.

## Part II -- RCAA Comments Ignored in fSEIS

### (A) Failure to address general comments

None of the general comments submitted by RCAA was specifically addressed. They were not submitted idly nor do they address trivial or irrelevant subjects.

\* For example, we called attention in the second paragraph of those general comments, once again, to the improper practice of the official third-runway partisans in presenting projections as hard numbers rather than (1) presenting ranges of possible future numbers or (2) expressing probabilities.

\* We are particularly distressed & aggrieved at the failure of the respondents to deal with the questions raised in our fourth paragraph of general comments as to commitments by the promoters of this project to mitigation of third-runway impacts. If mitigation measures are not addressed in environmental-review documents, when will they be addressed?

### (B) Individual comments ignored

The following individually numbered comments received no response or other mention in the Comments portion of the fSEIS (Appendix F, 2 fSEIS). To assist the reader, the general nature of the individual comments is suggested, by inclusion of the title of the Part of our Comments in which those individual comments appear.

#### Part 1: Construction Impacts

1-3

1-4

These two comments asked for per-hour and per-day truck-trip date for representative dates.

1-7 We sought a description of noise from the fill-hauling trucks. No response was given, but the subject is discussed at 1 fSEIS 5-4-14, and some mitigation is proposed

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1-8  
1-9  
1-10  
1-11  
1-12

Comments 1-10 through 1-12 asked for mapping of areas predicted to be impacted by construction noise. No response, no maps.

1-14(a), (b) We asked for clear schedules, including proposed hours of operation, for fill-hauling activity on the various routes under consideration, & suggested that construction not occur at night.

1-15 We suggested that the proposed, soon-to-be adopted US EPA standards for emissions of particulate matter between 2 & 10 microns be taken into account in assessing construction impacts. In response to a similar comment on general air-quality issues, we were told that the FAA & POS do not have to concern themselves with probable future regulations. See Comment 2-1(d) in Part III below.

1-16 We asked for quantification of social-impact data in the fSEIS version of dSEIS section 5-4(F). No response, no quantification.

1-17 We called attention to inadequacies in the proposed program for mitigating construction impacts, and made a suggestion for improvements.

## Part 2: Air Quality

2-1(c) We asked about health consequences of pollution from SeaTac aircraft in this and related comments (as did others). This particular subcomment was not referred to specifically in the responses, but was in fact covered. The subject of the responses to our air-quality comments will be discussed in Part III.

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### Part 3: Noise

- 3-1(a) We asked for the scientific basis for establishing the 65 LDN metric.
- 3-1(b) (a repeat of our unaddressed dSEIS comment IV-1-7)  
We asked again for the scientific literature supporting the 65 LDN as the threshold of noise impacts
- 3-1(c) Health impacts of noise.
- 3-1(g) Sought copies of any interlocal agreements setting up funding commitments for noise mitigation. (Seemingly, there are no binding noise-mitigation commitments from the Port to any local governmental body)
- 3-9 This comment was in fact not answered, but it is referred to in Response 7-P& will be addressed further in Part III, below.
- 3-22 Noise exposure maps should be provided that show noise from other airports, and the respective LDNs should be combined
- 3-28 We asked for inclusion of a copy of the POS agreement with Highline School District, re school-insulation, to carry out recommendation of Expert Arbitration Panel & 'requirement' of PSRC. (No response -- a response would have revealed that the Port had done nothing to carry out that highly-important mitigation recommendation.)
- 3-31 Is local residential construction typically 'cold-weather' construction (said to provide superior noise-proofing), as asserted in the DEIS? No direct answer but see discussion in Part III, Comments 31, 32.

### Part 4: Wetlands & Water Quality Impacts

- 4-2 JARPA, §404 application, creek relocation plans, should have been included.
- 4-6 Asks for specific discussion of Miller Creek.
- 4-9 Lost-opportunity costs should be discussed.

Part 7: Other Comments

7(C)-6

7(C)-7

These two comments focussed on the rationale for delaying start of third-runway construction. Though they were not responded to specifically, the fSEIS now confirms our suggestion in our Comment 7(C)-7 that the compelling reason for delay of construction is the lack of financial resources. See 1 fSEIS 2-21, in section A, second indented paragraph

7(C)-8 Contingency plans should be set out in the fSEIS, especially a contingency plan should construction money for the third runway not be available at the hoped-for time.

Because the foregoing comments are already a matter of record (in Appendix G, 3 fSEIS), readers are asked to refer to that source for more details. Further remarks on the overall significance of these failures to respond will be found in the Conclusions, below.

**Part III: -- Comments Misunderstood, Not Fully Responded to,  
Answered Inaccurately, &c.**

It is beyond the scope of these replies to give a full critique of the fSEIS or even a full critique of the official responses to our comments. However, many of our comments were so inadequately or misleadingly answered, or so grossly misunderstood or misinterpreted, that replies to such responses are warranted here. We will address these instances in the order of our comments rather than the order of the responses. Comments that are here summarized or paraphrased will be set off by ( ) unless the context unmistakably indicates a paraphrase; comments without ( ) are quoted as submitted; portions of comments that are quoted as submitted are off by double quotes. The relevant response is also cited.

**Construction impacts: Part 1 of our Comments**

Comment 1-6, Response 8-F. (We asked if the fill-hauling was to be accomplished by trucks only, or by truck-trailer combinations.) Response 8-F states that it replies to this comment, but it does not. So, we still do not know the type of fill-hauling equipment that the planners expect to deploy.

Comment 1-13. Is it accurate to assume, as does [the dSEIS] that there is no impact from truck noise if there is pre-existent aircraft noise? Isn't noise cumulative. Response 8-M says "aircraft overflights are expected to overshadow noise from construction activity". So noise is no longer cumulative? We find this confusing & misleading.

Comment 14 (b). We wrote "The fSEIS should present clear schedules ... for the fill-hauling activity on the various routes under consideration, to permit all concerned to understand the full impacts of this massive activity." Response 8-D interpreted this as a question as to whether affected parties would have a change to challenge and comment on the final choices.

## Air-quality issues: Part 2 of our Comments

Comment 2-1 and Responses 6-G, 6-R. (We asked about particulate matter expected to occur at the Airport through year 2020, the pending change of the PM standards by US EPA, and proposed changes in US EPA standards for ozone.) None of these questions was addressed in Response 6-G. The excuse was that the proponents did not have access through the FAA and EPA to updated data on aircraft particulate emissions. Considering that we asked specifically for a literature search on this point, it is interesting that the proponents seem not have bothered to do any literature research, let alone commission their own studies. In Response 6-R, the reviewers averred that they do not have to pay any attention to standards not yet adopted. Surely, an environmental review ought to examine the effects of future regulations, when at present those regulations are under active consideration & are far advanced in the enactment process. In the case of the PM<sub>2</sub> standard, there seems to be universal agreement that the draft regulation, or something very, very like it, will be adopted, despite considerable opposition.

From the point of view of the fSEIS, the soon-forthcoming ozone and soot regulations from US EPA will be a problem for future State regulators, who will be faced with a fait accompli. What the fSEIS doesn't mention is that at present commercial aircraft are in effect immune from regulation, so that reductions in PM<sub>2</sub> & ozone will have to be made by non-aircraft users in order for future State Implementation Plans to succeed. Here is an indirect, or induced, socio-economic adverse effect that cries out to be addressed in the fSEIS. If it is not addressed, seemingly the public will just have to suffer the health consequences. Could this fairly be described as bureaucratic callousness?

Comment 2-3 and Response 6-C. (We asked about fuel dumping, its frequency, its health consequences, &c.) The official position is that fuel dumping almost never occurs, which will be news to people who have experienced it personally. However, the inquiry did shake loose the name of an official who is charged with receiving complaints about dumping: -- Tom Davidson, FAA Air Traffic Manager, Seattle Tower.



Comment 2-5 and response 6-l. (The dSEIS seemed to take the position that a letter from the Director of the Department of Ecology constituted the mandatory certificate by the Governor under 49 USC 47106(c)(1)(B). We asked about the authority for the substitution.) The Response threw out a bewildering barrage of citations to irrelevant State statutes. But the true authority is apparently a phone conversation from someone in Ecology claiming that the Governor delegated this (non-delegable) duty. We still would like to see (1) the authorizing statute and (2) the written instrument of delegation. Normally in this State questions like this are put to the Attorney General for definitive opinions. It is interesting that that was not done here. We suspect that there was no purported delegation & that if delegation was attempted it is without authority in law. But no-one can tell from the Response. And the proper certificate is a necessary precondition for this project to move forward.

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#### Noise issues: Part 3 of our Comments

Comment 3-2, Response 7-U (We asked for SEL contour maps comparable to the 65 LDN contour maps in the dSEIS, for SEL contours 80, 90, & 100 dB.) The Response states that the fSEIS presents SEL information at 1,290 sites. A careful perusal of the relevant portion of the fSEIS, section 5-3, discloses no reference at all to SEL. The request for SEL contour maps is not understandable – the Response says that five such were prepared but they are not in the fSEIS text.

Comment 3-4, Response P. (We asked that the current computer program for processing raw noise data, INM 5.1, be used for noise modelling.) The Response was that noise contours generated by the new program “would be expected to be virtually the same between the two versions of the noise model”. No authority was cited. We are not so confident of this “virtual” equality in result. What would have been the harm in finding out, by honoring our simple comment/request?

Comment 3-5, Response 7-V. (We pointed out the absence of a statement of the modelling assumptions used in producing the noise-contour maps in the dSEIS, & asked that the fSEIS include a variety of important details.) The Response was that the prepares had used "industry accepted procedures" (not stating where those procedures have been published) The Response adds that the modeling "complies with the FAA's intended use of the model", which is at best an ambiguous remark, & at worst, ominous. It is claimed that "[t]he document contained a summary of the specific input assumptions" What document? No such details were in the dSEIS, and we are unable to find any in section 5-3 of the fSEIS, though that section refers vaguely to Appendix C-3. If these details are in 2 fSEIS Appendix C-3, the Response (& the text of the fSEIS) ought to have indicated where in the 220-pages of the Appendix readers should turn. There are, regrettably & predictably, no table of contents or index for that Appendix. Are the modelling assumptions hidden in there somewhere? Could it have hurt for the Response to have guided readers to them, if they are there? And if they are there, a valid Response would have indicated which of the 16 assumptions that we asked about were covered & which were not. We note in passing that the POS refused to provide a statement of those assumptions earlier in this process. See Comment 3-5(b) – characteristically not responded to.

Irrelevantly, the Response claims that "[a]ctual data files input to the noise models are available from the FAA" -- that's good to know now, though it's a bit late for this process, but it is of no help in understanding the assumptions used to process those raw-data files.

Comment 3-6, Response 7-A. (We asked that the fSEIS maps of noise exposure (NEM) show 1996 noise conditions, in light of the increase in Airport activity from 1994 to 1996. This work was not done, in reliance on a guess -- could it be called a self-serving guess? --that a 5 percent decrease in operations by aircraft in the Stage 2 category would more than offset the increased noise induced by growth in number of operations. Maybe, maybe not. We would have thought that since most of the 'heavy lifting' in preparation of NEMs is done by computers, it would be better to have the computer generate the requested maps rather than to guess as to what the maps would show.

Comment 3-7, Response 7-W. [Readers are requested to follow this discussion with care, while considering what the Response indicates about the official mind-set involved.] (Following up on a suggestion in the official 'User's Guide' for INM ver 5.0, we asked for NEMs depicting seasonal noise exposure.) The Response concedes that this work could have done, & might be 'interesting', & that Sea-Tac Airport does indeed experience seasonal variations in activity. But such data "would not be useful in examining land-use impacts".

This assumption rests on the persistent, fallacious, & damaging notion that people's perceptions of overflight noise, & the difficulties that they experience from it, stem solely from the adjusted annual average of that noise. Quite to the contrary: It is widely recognized (& we could find indications of official agreement for this in the earlier environmental review papers if we had the time to look) that aircraft noise is perceived as significantly more annoying in the warm-weather months. We respectfully suggest that it is precisely the noise in warm-weather-months that has such a deleterious impact on residential property, & the values thereof -- a critical component of the land-use impact question. It is also widely recognized (except by FAA) that single, very noisy events (which is what the SEL metric measures) are particularly disturbing. This matter of warm-weather single-event noise becomes a more significant factor as night-time noise (another key annoyance) declines not only on a LDN basis but more importantly on an SEL basis, as Stage 2 aircraft are phased out, thanks in part to the Port's regulations restricting night-time operations of those aircraft. (Of course, for those affected by noise from King County International Airport, the shift of Stage 2 aircraft from Sea-Tac to KCIA is a dubious gain.)

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Given the importance of SEL, it would be not only 'interesting' but also useful to know if there are variations in SEL contours between the cold-weather and warm-weather months.

Comment 3-8 (We requested deletion of erroneous comment that 65 LDN is "a relatively low environmental noise level"). The response (7-S) talked about health effects of noise & the necessity of only using LDN as a noise metric. In explanation of our request, we reminded the FAA/POS team of the substantial body of medical literature discussing adverse health effects from noise in the 65 - 75 LDN range (a computer search of such literature— done on our behalf by an outside researcher — produced 400 or so references. The literature references were included in our comments on the DEIS, but were not responded to.) In response to our reminder, it was asserted that "Chapter IV, Section 7 'Human Health' presents (emphasis added) the impact of aircraft noise on various activities in addition to potential impacts on human health". The cited section in FEIS ignored the medical literature presented by us & can only be said to misrepresent the impacts of overflight noise on human health.

Comment 3-9, Response 7-P. (This comment asked for correlation of noise exposure maps with POS data from its remote noise-monitoring stations, & also for analysis showing statistical correlation between predicted INM contours & noise measurements from the monitoring stations.) The Response cites Comment 9 but does not address it in any way. This is one way to avoid answering difficult questions, but it smacks of partisanship, not the objective review required by the statutes.

Comment 3-10, Response 7-U. (In a follow-up to Comment 3-2, we asked for a comparison of SEL noise as measured and SEL noise as computer-modelled., pointing out that the INM models were not designed for single-event noise. We called specific attention to an FAA stricture, in the INM User's Guide, that comparisons between observed data and modelling results must be considered when modelling SEL.) The Response declined to provide the information, on the ground that

**“the intent of an Environmental Impact Statement is to identify the impacts of a proposed improvement relative to doing nothing”.**

The inaccurate characterization of the purposes (plural) of environmental review is amazing, which is why we have called attention to it typographically. As to our comment, we are at a loss to find any connection between this Reponse & our request. We pointed out to a likely source of error when considering the impacts of noise measured & computed on the SEL basis. The fSEIS blandly declines to consider dealing with that possible type of error. Members of our team who follow noise issues suggest that the requested information would have revealed shortcomings in the computer modelling of SEL (understatement of the noise impacts).

Comment 3-11(a), Response 7-X. (We pointed out a serious inconsistency between the proposed utilization pattern for the new runway (very low) and the asserted economic justification for it, asking for the long-promised cost/benefit analysis, & referencing a particular pattern of projected future runway utilization found in dSEIS Table C-3-16.)..The request for the cost/benefit analysis was ignored (again). Will the public ever see this work?

The particular runway-utilization questions were not addressed specifically. Instead, a summary table (far less detailed than dSEIS Table C-3-16 & thus not responsive to the comment) was presented. The thrust of the Response was that, with the runway usage evaluated in the fSEIS, annual savings of \$146 million in delay costs to the airlines will be achieved by year 2002, thus compensating for the cost of construction in less than five years. Of course, they're not planning to have the runway operational in 2002. The assumptions underlying the claim of savings are not set forth,

& no computations are displayed, either in the Response, or where they should appear in the main text (Chap. 2, sec. 2 "Purpose and Need". For all that we can tell, the \$146 million figure is another of those plucked from thin air by the project's proponents; it certainly seems highly improbable, on its face.

Comment 3-11(b), Response 7-X (Concerns similar to those in Comment 3-11(b) were expressed for a different group, with the same lack of response.)

Comment 3-11(c), Response 7-X (Concerns with the third group of runway-usage patterns, similar to those in (b) & (c) were raised, with similar lack of response.)

Comment 3-13, Response 7-V & 7-N (A detailed inquiry as to the methods used for deriving estimates of numbers of affected people within various LDN contours.) The Response is worthy of being quoted in full: "Information concerning the population affected by aircraft noise levels is presented in the Draft Supplemental EIS based on political jurisdiction. See response to comment 7-N [typographical error for Response 7] for census related information." Response 7-N discusses the environmental-justice issue, not methods used to derive estimates of affected population.

So, what were the methods used to estimate affected populations? What are the margins of error, &c., in those estimates? How did the estimators arrive at future population numbers? Why is the reference to the dSEIS, & not to the fSEIS? Where in the dSEIS is the reader supposed to look for the material referred to in the Response? Is this another area where a complete answer would be embarrassing to project proponents?

Comment 3-14, Response 7-Z. (We asked for noise exposure maps including ground noise; we pointed out a study that reported ground noise far outside the contours contained in the POS' 1990 NEM; we asked for the data assumptions used to model run-up & taxiway noise in the INM noise exposure maps published in the fSEIS.) The Response says that Exhibit C-12 shows noise concerns for ground movement noise only; our copy of the fSEIS contains no Exhibit C-12 – the numbered Exhibits in

Appendix C rather oddly begin with number C-18. Table C-6 supposedly shows the run-up activity. There is no Table C-6. There is a Table C-3-6, at p. C-3-16 – but it turns out to be a table of the (missing) INM assumptions. If Table C-3-12 was meant instead of Exhibit C-3-12, then we have to report that there are no Tables between Table C-3-8 on p. C-3-20 and Table C-3-15, on the next page, C-3-21. Is this deliberate obfuscation?

Comment 3-16, Response 7-G. (We suggested noise barriers, mentioning the berms approved by FAA for Paine Field in Snohomish County.) The response indicates that noise barriers have not been evaluated but nonetheless have been found to be of limited benefit. How can one make a finding without first doing some sort of evaluation? As to berms in particular, they apparently work well enough in Snohomish County to be useful, but not in King County. Perhaps some people will believe that.

Comment 3-17, Response 2-C. (Re Port forecast of future traffic v. FAA's TAF. We asked for noise-exposure maps in the fSEIS utilizing the TAF, which, it will be recalled, showed usage levels about 10% greater in year 2010 than the Port's numbers. That would have been more consistent with worst-case analysis.) This request was ignored.

In passing, we note that on p. F-16, it would have been better to spell out the "certain worst-case conditions [that] were used in assessing the impacts of the Port's new forecast"

Comment 3-18, Response 7-P. (We suggested that "[e]vidence including tower orders, adoption of standard or NADP operations for departures by the scheduled air carriers, radar data, etc. should be provided to corroborate that operational assumptions used to predict noise exposure in the NEMs are actually being followed ... at Sea-Tac". Also requested was publication of NEMs showing alternative noise contours under specified conditions & of other specific data.) The Response asserts that the "INM has been found to correlate accurately with actual noise measurements", citing a table located somewhere in Appendix R of the FEIS. The Response declined to discuss the question of whether

Noise Abatement Departure Profiles (NADP) had been approved for use in the INM. None of the requested data were provided.

It is interesting to note that the table in Response 7-P shows variations between modelled & 'measured' (computed from actual measurements) LDNs ranging from -0.8 dBs (station 7) to +3.6 dBs at two locations. A + measurement means that the average sound level calculated from measurements at the station was larger than the prediction in the INM modelling. In no case did modelling match measurement; in 9 out of 11 instances the measured readings were louder than the modelling. All of the stations lie within measured 65 LDN contours: it is a little hard to trust contours that do not include readings from outside the area of interest, leading lay observers to wonder just how far the measured 65 LDN contours really run.

It is important to note that the proponents are aware, as is shown by Response 7, that the noise contours produced by their modelling understate noise, as measured by the 65 LDN metric. **Why, then, does the fSEIS only publish contour maps that understate the extent of 65-LDN noise?** At the very least, maps showing contours derived directly from the actual noise measurements at the 11 monitoring stations should have been presented. It would have been more candid to have noted in the text of the fSEIS (section 5-3) that the contour maps actually contained therein understate actual LDN.

Comment 3-21, Response 7-V. (We asked for the same information relative to reliability of local use of the INMs that had been sought, unsuccessfully, by the PSRC's Expert Arbitration Panel.) The Response is incoherent. See discussion of Comment 3-2, above, for details.

Comment 3-23, Response 7-AA. (We asked for modelling of contours on maps with topographical features, as use of the INM ver. 5.0 permits.) This was not done, on the basis that the maps that were used "provide better geographic references for public readability". The maps that were provided (sec 5-3) are nothing to boast about when it comes to readability. A hand lens is almost mandatory, & the cross streets used on the map are not always the important cross streets in the area. (Example: use of So. Edmunds in the Columbia City area of Seattle -- the actual cross



streets of consequence are So. Alaska and So. Genesee. Farther to the north, So. McClellan is a major cross-street, not identified. The two major North-South arterials, Rainier Ave. So. And Martin Luther King Way So., are not identified, & are hard to find, given the poor quality of base map, as reproduced.) So, the readability argument is unpersuasive. We did not ask for the topographical maps instead of maps with identifiable major streets & highways. It might have been much more helpful to have provided both.

Comment 3-24, Responses 7-AB & 4-B. (We asked about noise-abatement departure corridors and profiles, mentioned favorably by the Expert Arbitration Panel, in their remarks following the operative part of their final order on noise). We were referred to the lengthy response 4-B, containing a multi-page matrix of requests made by PSRC to POS to do something about noise (instead of adhering to its commitment to act on the basis of the Panel's final order). Where in that matrix are we to find the answer to the question in Comment 3-24? We haven't been able to locate it -- but of course we were not the ones who prepared the matrix. A specific inquiry should have been given a specific response.

Comment 3-25, Responses 7-AB & 4-B. (We asked about preferential runway usage, per a suggestion from the Expert Panel.) Same non-response as to Comment 3-24, equally unsatisfactory.

Comment 3-26, Response 7-AB & 4-B . (We asked about a Part 161 study.) Same non-response.

Comment 3-27, Responses 7-AB & 4-B. (We asked about the social surveys recommended by the Expert Panel in their dicta.) Same non-response. That subject clearly is not included in the matrix in Response 4-B. Apparently that part of the Panel's recommendations did not find official favor with the POS?

Comment 3-29, Responses 7-AB & 4-B. (We asked about sensitive-buildings insulation programs, a significant part of noise-mitigation work, endorsed by the Expert Panel. In particular, we asked about financial commitments from the Port to this endeavor.) Same non-response. This

is particularly interesting, because this program IS specifically included in the matrix in Response 4-B (Item E, p. F-54). Perhaps we can properly conclude that the Port'd non-responsiveness indicates that the Port HAS NO COMMITMENT to this program.

Comment 3-30, Responses 7-AB, 4-B, 2-V, & 7-D. (We asked about progress on the Panel's recommendation that an expanded residential acquisition program be considered.) Being referred to four different responses suggests that a separate response should have been provided. Response 7-AB itself provides no information on the subject. Residential properties do not seem to be included in the matrix in Response 4-B (though why commenters are required to do the respondents' work by locating the cross-references, we cannot understand.) Referring to Response 2-V, we find "moved to another location/comment number", but we are not told where! Some response to a serious comment! "Your information is at such-&-such address" & when you inquire, your inquiry comes back, marked "Moved. Left no forwarding address." Response 7-D says nothing about the Expert Panel, PSRC, or an expanded residential acquisition program (bear in mind that this is all about remedying problems from second-runway noise).

Comments 3-31, 3-32, Reponse 7-J. (The DEIS took the erroneous position that single-family residences in the area are typical cold-weather [Mid-Western] construction & thus do not on the whole need much insulation against noise. We challenged that assumption, to be told in the FEIS that now the experts estimated only 10% of the homes to be of masonry or brick construction. But no new estimates on insulation needs resulted from the shift of position. In the latest comment, we asked for re-evaluation of the numbers and for more careful distinction between brick construction and brick veneer. There are in fact very few stone masonry homes in the area and almost no brick ones. Apartment houses, on the other hand, we might have noted, are often poured masonry.) The Response to the comment was that this is all irrelevant because conventional temperate-weather construction provides sufficient insulation and the proponents ignore all this anyway in their insulation programs. Then why was this raised in the DEIS? It was convenient there to misrepresent the type of construction in the area, but when the

misrepresentation was pointed out, the fSEIS abruptly declares FAA/that actual construction methods are irrelevant!

Wetlands & water quality: Part 4 of RCAA comments

Comment 4-1, Response 9-O. (We asked how the Port proposed to relocate Miller Creek in light of a settlement agreement in Superior Court in which it undertook not do anything of the kind.) The response talks all around the Miller Creek situation but does not address the question.

Comment 4-3, Responses 9-M & 9-N. (We asked how the proponents intended to replace wetlands lost in one drainage basin by substitution in another, in light of apparent legal bars to such action, & we asked for citations to the local ordinances that would permit such substitution.) Our comment was not cited in Response 9-N, but it applies. The first response was, as we read it, that the FAA is not bound by such trivialities and the second, in effect, was that the proponents have not yet bothered to inform themselves about the legality of their proposed actions. The FAA may not be bound by local law, but the Port is. It is really strange to read in an environmental impact statement that two huge bureaucratic organizations propose taking actions regulated by environmental law without concerning themselves with the legality of their proposed actions.

Comment 4-4, Responses 9-R & 9-E. (We asked why the silence in the dSEIS about the Port's Airport Storm Drainage System Comprehensive Plan, & asked for specific comparison of that plan and the December 1996 Miller Creek Relocation Plan.) We received no response to the latter inquiry. As to the former, it appears that there was no co-ordination between the preparers of the Comprehensive Plan and the preparers of these EIS papers, & so the dSEIS came out just before the Plan, & without reference to it. The result is that there are at least three different, current Port plans affecting Miller Creek, & no understandable co-ordination amongst them. Who can tell what the Port has in mind for the Creek, faced with such a muddle? Don't people at the Port read each other's monthly activity reports, to know what's going on?

Comment 4-5, Responses 10-B, 10-C, 10-D. (We noted the silence of the dSEIS re the aquifers underlying the Airport site.) The Responses remind us of the discussion in the FEIS & its Appendix Q-A, & provide some information about an aquifer of concern to the Seattle Water Department, and about the Highline aquifer. Both discussion are quite restricted, being limited in the case of the Seattle aquifer to a parking lot and to construction/relocation impacts in the other case. There is no comprehensive discussion of the possible overall impacts from the increased level of operations predicated by the dSEIS and fSEIS, to say nothing of the even-more-increased levels predicted by ACC and the H-O-K study team (which are more credible).

Comment 4-7, Responses 9-S & 9-D. (RCAA expressed a concern about the failure of the dSEIS to spell out means of meeting its professed goals for preserving fish habitat. The goals are found at 1 fSEIS 5-5-20 (not 5-3-20, as our submitted comments stated, owing to our typographical error). The Response refers readers back to an appendix to the FEIS & forward to engineering plans to be developed some time in the future, which may or may not be reviewed in various permitting processes. The reader knows no more about plans to preserve fish habitat than he did at the outset. Response 9-D says that it will all be taken care of in the Miller Creek relocation. But the relocation of Miller Creek is forbidden as the result of the settlement of the Kludt lawsuit. See Comment 4-1.

Comment 4-8 . (A comment about the useful life of the third runway. The Responses are discussed below in connection with Comment 7(C)-4, & the reader is referred to that discussion.

Socio-economic impacts: Part 5 of RCAA comments -- discussion of H-O-K study

Comments 5-4 through 5-7 & Response 4-J. (Here, we asked in detail about a variety of socio-economic impacts on communities near the Airport, based on the preliminary draft of the H-O-K study funded by the State.)

*Our comments, and Response 4-J, sharply highlight major disagreements between the project's proponents & the project's local critics, & reveal, on analysis, the fundamental errors in law, practice, procedure, logic, & fact that underlie the proponent's position on mitigation matters. Therefore, we will discuss these comments and Response 4-J in considerable depth.*

The principal attack of the Port and the FAA on the H-O-K study is found in Response 4-J. It is beyond our scope to defend that study in detail, but not beyond our scope to point out: (1) failures of the FAA and POS to address legitimate concerns raised by the study and (2) misinterpretations and misrepresentations of the study by the author(s) of Response 4-J

Response 4-J addresses our questions and the comments of several others on the subject. In short, the response presents a conclusion, not based on any cited study or other publication, that the adverse impacts described in the H-O-K study do not exist: "The [study] did not identify any new significant adverse environmental impacts associated with the proposed improvements that have not already been identified or addressed in the Final EIS and Supplemental EIS." This is a breath-taking assessment.

Below are listed some of the impacts identified in the preliminary study, about which we asked specifically, which are NOT addressed in either EIS so far as we can learn . The Response does not refer to any of them, as it surely would (or should) if any were discussed in the main text of the fSEIS. The appropriate place to find discussion in the main text would be section 5-4, which is silent on any of these topics.

- \* Consequences of acquisition of single-family properties, apartment houses, and business
- \* Residential displacement
- \* Business displacement
- \* Disruption of existing communities
- \* Disruption of planned developments
- \* Changes in community demographic profiles
- \* Changes in employment patterns
- \* Impacts on public schools resulting from changes in demographic profiles

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We suggested in our Comment 5-4(b) that the fSEIS should take into account the final, published version of the study, and asked for an explanation should the fSEIS not so do. That comment was not responded to. For our purposes, then, we consider that the final H-O-K report in play, as well as the preliminary draft issued for comment.

1. Disproportionate balance between impacts and benefits. Appendix A of the final H-O-K report spells out in detail the imbalance between benefits and adverse impacts for the multi-city area surrounding the Airport. The Response explicitly admits the fact of disproportionality. 1 fSEIS F-59. The Response then asserts that the Master Plan Update, FEIS, and fSEIS dispute "the specifics of the nature and substance of impacts". As to the Master Plan Update and FEIS, this is a neat trick, for both were published before the preliminary H-O-K report was issued. As to the fSEIS, if it disputes anything found in the final H-O-K report, it does not do so in the appropriate place (Chapter 5) – unless silence is to be taken as a "dispute"

2. What are 'significant adverse environmental impacts'? The official position is hard to discern. Response 4-J asserts that the POS and FAA, having reviewed the draft H-O-K report, conclude that that the FEIS and fSEIS "have identified all significant adverse environmental impacts from the proposed improvements in accordance with FAA Orders 1050.1D and 5050.4A and applicable NEPA and SEPA requirements". This is typical opaque bureaucratic writing. Is the average reader to understand that the referenced FAA Orders define the term "significant adverse environmental impacts"? Or do these Orders only define the official FAA process for environmental review? And what are the impacts identified by the H-O-K team that the FAA/POS team think are not appropriate to consider? Apparently, the continuous interruption of educational activities in classrooms by third-runway-induced aircraft-overflight noise is not a significant impact, for there is no proposal to mitigate it suggested by FAA/POS, though the final H-O-K report covers this subject in considerable detail.

3. Fundamental error in regard to land-use planning. The Response, at p F-60, states that mitigation measures proposed by H-O-K were "not followed by an evaluation of land use planning policies to complement these actions and therefore does not indicate that such mitigation is warranted". This analysis is fundamentally flawed in several particulars.

(1) The first error is to assume that the communities impacted by the Airport are required to engage in retroactive land-use planning as a matter of law, generally, or as a condition of being granted mitigation. We call upon the FAA and POS to cite competent legal authority for these propositions.

(2) The second error is to assume that retroactive land-use planning will as a practical matter lessen the burden of mitigation that ought to fall on the sponsors of this project. An example will clarify: The Highline School District's numerous schools are all shown by the final H-O-K report to lie in areas that will be adversely impacted by third-runway noise, needing mitigation. If the various land-use planning jurisdictions throughout the District's area were to enact rules forbidding the construction of schools or the continued use of schools in the future impact zone (which is what the fSEIS seems to suggest should happen), then the School District would be obliged (if the courts upheld such a land-use



restriction) to find new locations outside the District for all of its schools, and to provide for transportation of its pupils to these new outside locations. Under this scenario, instead of closing 9 schools and insulating 25 more against noise, the District would need to close 34 schools – all its schools – and build new replacement facilities outside the District. (Or are the Highline pupils to double-shift with pupils in already-existing buildings owned by near-by districts, such as Kent, Tukwila, Bellevue, and Seattle?) Rebuilding outside the District will increase the dollar burden of mitigation enormously. Thus we see that retroactive land-use regulations will not help with the schools problem. The same is true for many other mitigation measures proposed by the H-O-K team.

(3) The third error is to assume that the final H-O-K report does not take land-use changes into account, where appropriate. The report's recommendation is to buy out and convert to other uses substantial sections of the neighboring cities: four entire neighborhoods in the City of Des Moines, for example. Converting these evacuated neighborhoods to uses compatible with future airport noise will result in major land-use changes. The Response ignores both the recommendations themselves and their obvious effect to adapt future land use to future noise levels.

(4) The fourth error is to assume that, where techniques such as insulation are insufficient to mitigate impacts, the suffering neighbors should change their land-use patterns to accommodate the Airport, without compensation. This error rests on a companion error, which is to assume that the newcomer, the Airport (or more precisely, the Airport's new noise) has so high a priority over other, pre-established uses that it need not compensate for harm that it does. Only if the existing residents, businesses, institutions, and governmental bodies first adjust their use of their land to the Airport's present and future needs, without compensation, will the Airport be held accountable. But of course on that basis, the Airport is never held accountable. The argument proves too much.

Lurking behind this discussion is the notion, often stated orally, but rarely committed to print by FAA or POS, that those who moved to south-west King County decades and generations ago should have known that in the 21st Century an airport would create very serious noise problems. The fact is that the communities and the schools were on the ground before Bow Lake became Sea-Tac Airport. Public-school

construction began in the Nineteenth Century. Major schools now in use in the Highline District were built in the 20s and 30s, long before Sea-Tac Airport (or Bow Lake Airfield) "was a gleam in anyone's eye". It is also worth recalling that the existing land-use patterns in the area are consistent with the Sea-Tac Communities Plan, adopted in 1976 by the County and POS. On the assurances of that plan, local jurisdictions went about their business. Now, according to the FAA and POS, those same jurisdictions are in the wrong and must endure third-runway impacts without mitigation. This is particularly ironic when one recalls that the Sea-Tac Communities Plan rested on the Port's assurance that there would NOT be a third runway at Sea-Tac, & that when Sea-Tac outgrew its existing configuration, a new airport would be built. There is an unwelcome tone of blame-mongering in the official environmental-review papers. The bureaucrats suggest that the communities should have guessed correctly that the Port would not live up to its no-third-runway commitment, would violate its commitment to building a new airport when Sea-Tac reached capacity. The communities should have guessed what future noise would be, should have known that Sen Kennedy would, for still-unfathomable reasons, become the ardent and successful champion of airline deregulation, with the resulting boom in air travel. Having failed to guess correctly, the communities deserve no mitigation. The facts are that when the second runway was built no-one foresaw deregulation, let alone its consequences. No-one foresaw, we believe, the capacity-devouring growth of low-capacity commuter airlines. Those who sited the Bow Lake airfield never supposed that it would reach its present size, nor did those in charge of land-use planning, nor was there anyone in the civil-aviation establishment who had better forevision. No useful purpose is served by attempting to apportion blame among the local actors for failure to foresee unforeseeable national and world-wide trends -- certainly not when the ostensible purpose is to define adverse impacts of a particular project and to plan mitigation of them. If blame were to be assigned, we would point to --- but it is wiser to forbear.

(5) It is also an error for the the FAA/POS team to shift the burden of mitigation analysis from itself to the H-O-K team (& the impacted communities) on the basis of a disagreement about land-use planning. This point is not obvious, so some explanation is required. The FAA/POS team appears to take the position in Response 4-J that no official

*Replies of the Regional Commission on Airport Affairs  
(RCAA) to the Responses of FAA/POS to the Comments  
of RCAA on the Draft Supplemental EIS (dSEIS) to the  
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environmental review is required of suggested mitigation measures that might (on their view) require companion land-use measures, unless those who point out the problem impacts and suggest mitigation also suggest land-use changes that are satisfactory to the proponents. See numbered paragraph 2, 1 fSEIS F-60. This an error, because the burden for evaluating adverse impacts of a proposal rests by law entirely on the proponent(s) of the project. In this case, that means that the burden rests upon the FAA and POS (with PSRC as a background player, who should in truth be a co-signer on the FEIS and fSEIS). That the Legislature was willing to pay \$500,000 for a study supplementing the work of the proponents should be regarded by the proponents as a welcome contribution to a difficult task. However, the supplemental study does not relieve the proponents from the necessity of taking a hard look at all problems; the H-O-K team has not become the official environmental reviewers. Nor is this a battle of competing EISes, analogous to contending briefs in court, where the better brief prevails – however inadequate it may be. The burden of the proponents is NOT to do a marginally better job of environmental analysis than someone else: their burden is to do a complete job.

(6) Disagreements, if any, about future land-use regulations do not alter the need for mitigation or the duty of the fSEIS to recognize impacts. Let us suppose that some of the mitigation measures proposed by the final H-O-K report should, in the view of the project proponents, be accompanied by land-use changes not spelled out in the report. It does not follow that the adverse impacts reported by the H-O-K team can therefore be disregarded. Rather, it then becomes the duty of the proponents to suggest the land-use changes that they think should accompany the mitigation. Again, the burden of this process rests exclusively on the proponents. And the burden is to do a full, complete job of analyzing environmental impacts (and of proposing appropriate remedial measures). Just by analyzing the responses to our comments based on the work of the H-O-K team, it is clear to us that the burden has not been met.

4. The use of 65 LDN as the sole criterion for mitigation of noise impacts is erroneous. The Response rests heavily on the continued use of 65 LDN contours as the only basis for recognizing adverse impacts. We and others have commented at length, & often, about the inaccurate characterization of that metric by the local FAA. But misrepresentation persists. See 1 fSEIS 5-3-2, sec. 5-3-2: it is there asserted that the 65 LDN metric was "established" as the critical level for the determination of noise impacts, on the basis of scientific surveys and analysis. This is flummery. If there was any science involved, the involvement was accidental. The number at best was chosen because highway engineers were already using it for a very different type of noise impact, and that's not a scientific way to do things. True, 65 LDN is convenient, because with annual averages actual noise can be smoothed away. To use a method that we learned from the FAA/POS team, we incorporate by reference all our previous comments on this subject.

It is also not true, as the Response suggests, that noise outside the 65 LDN contours must be ignored for FAA purposes. We call attention to a memorandum from the FAA's manager of its Community and Environmental Needs Division, dated 25 July 1995, debunking the "misconception ... that the FAA cannot approve mitigation measures in a Part 150 program that go below the DNL 65 dB noise contour". The manager, Lynne S. Pickard, plainly states "This is not the current FAA policy, as established in the January 1989 Report to Congress 'Eligibility of Noise Abatement Proposals to Grants-in-Aid Under the Airport Improvement Program". Reference is also made to a change in (FAA) Order 5100.39, paragraph 710. Pickard's memo. confirms the 1989 FAA document cited in our Comment. We suggest that even the Northwest Region is bound by FAA policies.

And, even if the FAA were unable or unwilling to provide grants-in-aid to the POS, the POS has its own obligations, which are not so circumscribed.

The root error here is to suppose that an adverse impact need not be recognized, nor mitigation considered, unless the mitigation is to be funded by the FAA or some other source. There is no warrant for that approach. An impact is an impact, regardless of "Federal noise policy". If a project required a crew to use chainsaws in a residential neighborhood in

the middle of the night, there would be an impact, even though there is (hopefully) no Federal chain-saw-usage policy.

Important purposes of environmental review, we understand, include calling attention of such impacts as may be found, for which needful mitigation has not been provided, or which cannot be mitigated, for whatever reason. Only if the full spread of adverse impacts is fairly presented can policy-makers even hope to make reasonable decisions as to whether projects should go forward. The present approach subverts these important purposes of the review process.

5. Response 4-J suffers from yet another fundamental flaw. It confuses Part 150 reviews of existing conditions (and future, near-term conditions) with State and Federal environmental review of proposed new projects. See second full paragraph, 1 fSEIS F-61. The purpose of Part 150 studies is simple: set up the parameters for using Federal funds channelled through the FAA for noise mitigation, in accordance with the rather narrow constraints of the regulation (Part 150) & the underlying front-in-aid legislation. In a Part 150 study, expenditure of Federal money can only be authorized in accordance with Federal policy. This is not in any sense an environmental review; environmental reviews are mandated by entirely different statutes, including a State statute. Environmental review of airport expansion is in no way limited to noise issues or the peculiar constraints of Federal funding for noise mitigation.

6. Moving to another problem in Response 4-J, rendering the Response unresponsive to our comments: consider the property-devaluation concern raised by the H-O-K study. This is dismissed by the expansion proponents on the basis that “[j]ets have operated at Sea-Tac since the early 1960s. As based on the cited research [none is cited] the primary adverse effects on property values would have been experienced at that time.” 2 fSEIS F63. The Response asserts that the preliminary H-O-K report “appropriately notes that such effects were typically felt when the airport first began jet service”. Our research team has perused the relevant portions of the preliminary report time & again, & finds no such comments. The Response fails to note that the study shows increasing devaluation as noise expands, fails to note how few jet aircraft overflights there were in the early days of jet usage at Sea-Tac, fails to note how the fleet mix has changed from an occasional jet in a mass of turboprops (early 60s) to today’s jet-engine domination of the fleet mix, fails to note how the

jets have grown larger & heavier, &, thus, noisier, with resultant extension of property-devaluing overflights farther and farther to North & South, with resultant noiser climb-outs. One of our team vividly recalls his young daughter asking him about tiny lights visible on the far horizon from her South-facing bedroom window in Seattle's Mt Baker neighborhood. These lights would strangely twinkle out after being seen for a few seconds. Those were commercial aircraft departing Sea-Tac, inaudible, evanescent. Now the young daughter is a mother, & a Ph.D. candidate. Now those jets roar (with lights on) over most of Seattle night and day. No-one's young daughter need to ask what those roaring monsters in the sky are. In neighborhoods as far North in Seattle as Broadview (at the northern city limits), youngsters can identify overflying aircraft from their insignia, so large & so low are they. In a nutshell, the noise has gotten worse & worse, beyond anyone's imagination 25 years ago, & even the simplest mind must concede that the greater the noise & the wider its spread, the more the devaluation.

It may also be noted that the impact is not a one-time thing. Let's suppose, against common sense and experience, that the full range of devaluation noted by the H-O-K folks actually occurred in the early 1960s, as Response 4-J suggests. Now, purely hypothetically, let us suppose that by some miracle jet noise from Sea-Tac were to cease -- some marvel of engine technology, some EPA ban on jet airplanes, a decision by the Port to move the jets elsewhere & convert the real-estate to more productive uses, whatever. Is it not evident that property values around Sea-Tac would rebound rapidly & sharply, soon reaching the levels of the comparable properties in the Shoreline area, once the public became convinced that the jet noise was a thing of the past? Without doubt

But of course the property devaluation predicted by H-O-K for the period from the opening of the third runway (2000 in the preliminary report, relying on the FEIS), has not yet occurred, and the report is very careful to distinguish between existing conditions & future conditions. See preliminary report, p. 34 & seq. 'Socio-Economic Impact Analysis' section. Curiously, the Response claims that the preliminary report says that noise exposure impacts declined 52% between 1991 and 1994, citing p. 2-8 of the preliminary report. Our team took the trouble to look up that page: it is a merely a prefatory recitation of the claims made in the FEIS. On the

following page, one finds that the study authors are concerned about the failure of the FEIS to consider the noise metrics SEL and TA. The source document (FEIS) & the H-O-K study both are misinterpreted by Response 4-J: the diminution in noise impacts claimed in the FEIS does not reflect a quieter environment but only a removal (buy-out) of people formerly living very close to the facility. Everyone else still receives about the same noise as before, however measured. See second full paragraph, 1 fSEIS F-61.) And this has nothing at all to do with property devaluation, as the FAA/POS team ought to have known.

As a matter of interest, readers may wish to compare the alleged 52% decline with the statement in Response 7-G that the project will result in "an 11% greater noise exposure population ... in the year 2010". We all may be sure that that number is not overstated.

7. Another misconception in 4-J is that property-value losses would not occur if the localities were to tinker with their land-use rules. (Third unnumbered bullet point, 1 fSEIS F-63.) The faulty underlying assumption is that there is time to change land usage by regulation. WRONG! The cities are already there, as fully built up as Seattle or Tacoma, or Paris if you like, and as resistant to change by retroactive decree as any other fully-built-up area. Only if people are to be physically expelled from their homes and businesses can land-use regulations alter the property-valuation problem. (That would be a stupid thing to attempt, not only because it would be politically impossible in a democratic society, but also because someone would still be liable for the lost property values – in this case, the localities, acting as the unwilling agents of the FAA & POS, instead of those entities directly. But this would be a meaningless difference in terms of dollar losses to the owners & occupants.) We challenge the runway enthusiasts to suggest the land-use measures that should now be put into effect to cure the property devaluation that is predicted to occur after the third runway goes operational.

(This completes our discussion of the mitigation matter & the H-O-K study.)

Comment 5-8 and Response 7-N (Environmental Justice executive order). The Response sloughs off the evident disproportionate impact of new Sea-Tac noise and air pollution from the third runway by statistical sleight of hand: a majority of the census tracts impacted (per the unsatisfactory 65 LDN metric) have populations whose non-white population is less than the county average. So what? Obviously the correct statistical measure would be comparison of percentages of total populations (not percentages of census tracts.)

And what about the other protected classes defined in the Order?

Alternatives: Part 6 of RCAA comments

Comment 6-1 and Response 3-H. (We pointed out that the Washington Department of Transportation had presented an utterly negative report on high-speed rail possibilities to the Expert Arbitration Panel, and then, immediately after the Expert Arbitration Panel accepted that negative evaluation, the Department had a change of heart and began a big publicity blitz seeking support for its brand-new (??) plan for short-term implementation of high-speed rail. We asked for a re-evaluation of the high-speed alternative in light of that change of heart on the part of the Department.) The Response, relying on its own summary paraphrase of a WSDOT plan of April 1996, concludes that the Department is calling for "small investment" (how much was that in dollars? And for what?) "which will not enable a significant off-load of air passengers". This will scarcely do as a serious re-evaluation, lacking as it is in any specifics.

(We also asked, in Comment 6-1(d) that the fSEIS explain in detail the impact of the five-year delay in opening the new runway upon the utility of the rail alternative.) The Responses are silent on this point, though it seems obvious that if the State gains another five years for implementation of significant rail improvements, and for customers to become used to using rail, then there will be a reduction in demand for regional (commuter) air travel. We continue to regard incremental reductions in demand to be disproportionately beneficial when they divert operations at that critical point in the delay curve where delay suddenly becomes very great as the result of a very few more operations. This is



the “edge” effect about which we have commented before, with no response.

(In the balance of Comment 6-1(d) we asked that the fSEIS address specifically various described possible transportation alternatives.) There was no response, though the alternatives are patently reasonable.

(In Comment 6-1(f) we asked for a more factual analysis of the telecommunications alternative.) The response, 3-B, acknowledged that the question has been raised, but proceeded to disregard it entirely. The Comment further asked for an analysis of the “savings in dollars, including annual totals, of the 9% reduction in air travel associated with the use of new telecommunications technologies”. No response. We submit that a 9% reduction is significant, and should be factored into the decision equation.

Comment 6-2. (With regard to the possible alternative of one or more other airports being used, we commented at length that the EIS’ non-acknowledgement of potential sponsors for other facilities was without merit. We asked for the legal authority for the converse proposition in dSEIS at p 3-4, Part III (B) 1.) Of course, that legal authority was not cited. Instead, the nonsensical proposition was put forward (Response 3-B) that there are no alternatives because “no party or group intervened during the Flight Plan Study, Major Supplemental Airport Study or in any forum since.” (1) The notion of ‘intervention’ in an entity’s environmental review of its own proposal is a novel one. Perhaps a lawyer wrote this response, mistakenly thinking that environmental review is a quasi-judicial proceeding, in a ‘forum’? Who would grant a party leave to intervene, and what would it mean to have intervened? (2) The Response overlooks the fact that the Port’s ground rules for this entire planning process specifically restricted consideration of alternatives to the PSRC area, although everyone knows that the potential ‘green grass’ sites, with strong local support, are all located outside the PSRC area: the proceedings were plainly labelled, “NO OUTSIDERS NEED APPLY”.

As for the argument that there is no identified source of funds for alternatives, several points come to mind: (1) This is an environmental review, not a feasibility study -- its scope is much broader. (2) the identified sources of funds for THIS project are (a) quite insufficient as to the 'sticker price', (b) quite insufficient as to the financing costs (still not disclosed), (c) subject to official approvals not yet given, (d) dependent on the major scheduled airlines agreeing to underwrite \$200 million in bonds (just for the runway) -- and those airlines have been conspicuously uncommitted, at the best. (3) Where in the relevant statutes is it written that alternatives should not even be examined on the basis of an a priori determination that, if examined, no sponsor would be found or no source of funds would appear in advance? (4) A good alternative might -- should -- timpel, if necessary, a search for the sponsor. (5) There is no sponsor for the Do-Nothing alternative or for any of the other alternatives that the FAA/POS team chose to examine. There is no rational basis, sustainable under the relevant statutes, for the exclusion of some alternatives & inclusion of others in this review process.

Admittedly, the situation in this particular case is somewhat unusual. Perhaps the most common case is one in which there is fairly broad agreement that a project should go forward, & the choices are between various ways of accomplishing the goal, always checked against the Do-Nothing alternative, more or less as a matter of form. Another common case is the one in which the proponent wants to proceed but there is opposition, which relies on the Do-Nothing, or status quo, situation as the opposition's preferred alternative. This is a typical situation with real-estate developments & it is frequently observed in the City of Seattle & King County.

There are very rarely competing proposals from competing interests for some project on the same ground or seeking to achieve the same end. But here that is close to the case. The proposal from the Port seeks to settle a complex group of State-wide transportation issues by putting forward a proposal entirely under its control, & designed to achieve the business purposes of the Port, quite without regard to other interests, other policies, other policy-makers' responsibilities, other needs, & the interests of other parties in the State-wide transportation puzzle.

The Port, staunchly supported by its ally the local FAA establishment, seek to solve the State-wide and even region-wide transportation problem by its one-note solution – more, more, MORE air travel, all at the Port's one, in-city, airport. Under these circumstances, it is understandable why the Port and FAA decline to consider the full consequences of the transportation solution that they wish to impose on everyone else, and why they refuse to look at the alternatives to the policy issues that this proposal seeks to decide. Where possible physical developments (e.g., high-speed rail) might meet some of the professed need but would result in a policy decision contrary to the Port's assumption, then (it seems to us) environmental review requires that the policy alternatives not be excluded, how ever far from the proponent's preferred alternative the physical work might be. In short, this is not a review of possible choices for airport configuration. It is a review of a proposal that would greatly impact on an otherwise unresolved, ongoing policy debate, & the scope of alternatives to be reviewed should reflect the very broad issues involved.

Readers wishing to pursue this matter further are requested to read our Comment 6-2 and Response 3-B with critical care. Please note the hard questions left unanswered. Please note the utter absence in the Response of any citation to any authority at all for the dogmatic assertions found therein. How can credence be given to such anonymous, unsupported assertions on matters of fact? Where would one find the POS and FAA studies referred to in the last sentence of part 2 of the response? And how shall interested persons reconcile the PSRC's finding that supplemental subregional airports are needed and would meet the need (if they could be found) with the new finding by POS and FAA that they would not? Are readers supposed to have forgotten that the the PSRC work was half paid for by the POS and was controlled by it throughout? What a way to back off from one's earlier fully-reviewed work! Just announce in response to an EIS comment that one has studied the matter (not that one has re-studied it) and in an unpublished, uncited review, one has reached a particular conclusion, never conceding that one has made a 180-degree change of course on a major subregional planning issue, without benefit of any public process at all, or any consultation with the subregional planning agency (PSRC).

Comment 6-3 and Response 3-F. (Here, the issue is demand management. We protested the misrepresentation in the dSEIS of the findings of the Expert Arbitration Panel on demand management, questioned the propriety and legality of disregarding demand management as an alternative (as has been done in this instance) on the basis that the project proponents don't wish to manage the demand. This comment was ignored, or perhaps considered to be a suggestion limited to a change in the "airline basic agreement process typically related to pricing policies". The Response returns to the earlier idea that "legal issues" might be raised (what issues?) and so on, without addressing our comments on these lacklustre arguments. Of course, the FAA has the power to regulate: if it chooses not to regulate, then that is a decision to ignore an alternative. What would be the case if the FAA used its powers to reduce the number of flights by regional carriers whose Sea-Tac flights constitute 38 to 40% of all operations, for the accommodation of about 7% of the passengers? This is a concern that will not go away just by ignoring it. The reference in the Response to "yield management" (by the major carriers) (1) shows that demand management can help but (2) ignores the disparate usage of the Airport by the two markedly different types of carriers: the big majors flying lots of travellers long distances in capacious aircraft and the little regional carriers flying every half hour with a handful of passengers to destinations near-by.

Comment 6-4 and Response 3-E. (We pointed out the error in the dSEIS with respect to the utility of Localizer Directional Aid (LDA) technology: the dSEIS says it can only be used in the poor-weather condition known as VFR2. We cited a study previously submitted by us, which shows that LDA technology has been widely adopted for IFR (even-poorer weather conditions). We also pointed out that the PSRC Expert Arbitration Panel had indicated that LDA would be useful at Sea-Tac.) The response fails to address either the study or the Expert Arbitration Panel's finding. The resulting position is this: Perfectly competent outside experts say that LDA could be used at Sea-Tac to good effect, both in VFR and IFR conditions; the proponents of Sea-Tac expansion pretend that those expert opinions do not exist.

Comment 7(C)-1(c) Is this huge earth-fill work practical? [Referring to the fill required for the proposed new runway] We are aware that the 1994 EIS [error – it was an environmental assessment, not an EIS] for improvements at the Albuquerque Municipal Airport concluded that an [sic] runway extensions with up to 150 vertical feet of fill required – closely comparable to the Preferred Alternative for Sea-Tac – was impractical.

Response 2-R misinterpreted the foregoing language as raising a question about the feasibility of hauling the quantity of fill required, and as suggesting that an 8500 foot runway wasn't long enough.

What explanation can there be for such grotesque misinterpretations of plain English?

The simple fact is that the Albuquerque environmental assessment found that the proposed construction – closely comparable to that which is proposed here – was impractical. We quote from the assessment, prepared by Coffman Associates, Inc., for the airport operator, the City of Albuquerque, discussing the alternative of a new runway on fill: “[It] could require as much as 150 feet of fill over seventy to eighty percent of the runway length. This magnitude of earthwork is too significant to justify the development.” The Response ignores that finding & suggests instead that the real reason for not proceeding with expansion at Albuquerque was that there was no need – which is not the issue. Indeed, it is irrelevant whether Albuquerque did or did not go forward with some other expansion scheme.

The question was: Is this earthwork practical? Of course you can haul any amount of dirt if you want to take the time and incur the expense. Again, that's not the issue: the issue raised in Comment 7(C)1-(c) is the practicality of the construction technique. Can a safe, useable all-purpose runway actually be built on 150 feet of fill? We asked. The Port & the FAA chose not to answer.

If it is suggested that our Comment was read as raising a question of cost-effectiveness (& perhaps it could be so read), then where is the discussion of cost-effectiveness in the Responses? No heading for this topic will be found in the (non-alphabetical) index, 2 fSEIS F-4 - F-6, yet comments on this topic were submitted.

Comment 7(C)-1(c). (In the first part of this comment, we suggested that no engineers have been involved in the planning for this massive fill

operation.) This was ignored. We ask again: Are there any engineers working on this? (And if so, who?)

Comment 7(C)-4, FAA/POS response 2-Q (What will happen when the capacity of the third runway is reached in a few years? What are the plans for a fourth runway?) The Response denies that the third runway will reach & exceed capacity in a few years, & fails to answer the inquiry about the fourth runway. The Response posits the third runway accommodating demand 'through the year 2030'. This response is at odds, we suggest, with common sense, all prior forecasts, & the main text of the fSEIS. We note the following: (1) The new official demand forecasts that are presented in Tables 1-1 and 1-2, 1 fSEIS 1-2 and 1-3 only extend to the year 2010, supposedly because of the problems in forecasting any further ahead; (2) the companion table, 2-2, at 1 fSEIS 2-3 presents forecasts only through the year 2010, for the same reason; (3) The text discussion of demand at 1 fSEIS 2-2 frankly concedes -- a welcome though overdue concession -- "Aviation demand forecasting is often incorrectly perceived as a science, where all variables are predictable and known. However, as is shown by comparing any forecast to conditions that actually occur during the period that was forecast, forecasting is more an art than a science. As a result, precise forecasting for specific future years, particularly more than 10 years in the future in the volatile air travel industry, is very difficult." (emphasis added); (4) unsurprisingly, the updated activity forecast presented in Table 2-5, 1 fSEIS 2-13 only extends to the year 2010; (5) impacts of the expansion proposal are forecasted in the fSEIS only to the year 2020 (see Appendix D, 2 fSEIS D-1 & seq., especially at p. D-2, stating that "year 2020 has been determined to not be reasonably foreseeable" (emphasis added). We can but agree with the fSEIS author(s) as to the difficulties of such forecasting. Six different official forecasts for the year 2010 range from about 400,000 annual operations (the Master Plan Update FEIS) to about 675,000 (1987 PSCOG draft EIS).

So, it is a mystery how, if demand cannot be forecast by the POS and FAA past the year 2010, the POS and FAA can then say that demand in the year 2030 will not exceed the capacity of the expanded airport. The matter becomes even more mysterious when one considers that the impossibility of forecasting more than a few years ahead is advanced as an excuse for ignoring all adverse impacts of the project past

the year 2010. See our Comment 7(A)-1, and response 2-Q. Stripped of verbiage, response 2-Q asserts that the future impacts will be dealt with in environmental reviews of future master-plan updates, and don't matter anyway (because no specific year can be assigned to the date of the potential impact). The Response suffers from a serious methodological flaw. It assumes that future adverse impacts will be tied directly to "air traffic levels in excess of 600,000 annual operations". This assertion has been plucked out of thin air.

Careful comparison of the comment and the Response will show that the direct questions posed to FAA/POS were left unanswered.

While response 2-Q asserts that the fSEIS beginning at 1 fSEIS 2-25 "show[s] [that] ...the proposed Third Runway is anticipated to accommodate the forecast level of aviation demand well into the 21st century . . . the Third Runway would accommodate demand through the year 2030", in fact, the materials beginning at p. 2-25 do not support the interpretation placed on them in Appendix D. The discussion deals with three different issues. The relevant discussion is found in section (A), "Airfield capability with a third parallel runway" (meaning the particular third runway under discussion). The entire discussion of airfield capacity beyond the year 2010 is found in two sentences. The first posits a Theoretical Maximum Capacity at 600,000 to 630,000 annual operations (emphasis added). The second says this would likely occur after year 2030 "[u]sing a linear extension of the updated forecasts". A linear extension? A straight-line extension?!? Surely if anything is clear from Sea-Tac Airport's history it is that at no time (at least since deregulation) has the level of operations grown on a straight-line basis. See, e.g., Exhibits 2-4 and 2-5, 1 fSEIS 2-16. Indeed, straight-line growth is the least likely forecast of growth rate that could be made. (Further, we question how a linear extension is to be plotted, for the newest forecasts do not yield a straight line from 1995 through 2010.)

Further, the discussion at Response 2-Q (2 fSEIS F-35) and at p. 2-25 of the main text is fatally flawed by its reliance on "theoretical maximum capacity" as the test of airfield overload. This is described elsewhere (1 fSEIS 2-9) as "an extreme capacity" – meaning grossly excessive levels of delay. The ostensible purpose of the third runway is to prevent delay (however defined) from reaching levels deemed "unacceptable" Surely,

grossly-excessive delays, operations at "extreme capacity", are "unacceptable". The response suggests that if average delays are no greater than 20 minutes, then the third runway has not exceeded its appropriate capacity. Sea-Tac reached a delay figure of 7.7 minutes when annual operations reached 345,000 (Table 2-4, 1 fSEIS 2-8), and for purposes of justifying a third runway, that amount of delay is deemed unacceptable. We are still waiting for a clear explanation of how much delay, & of what sort, is or is not acceptable. Apparently slight delay justifies a third runway but gross delays after that runway is built are of no concern.

While the official papers (such as the FEIS and the fSEIS) are extraordinarily obscure on the point, it seems possible that the unacceptable level of delay is the "severely congested" level as defined in the NPIAS: Sea-Tac has reached that level now (see Exhibit 2-2, 1 fSEIS 2-9) and now is the time that a replacement runway is said to be needed to fix "delay". Exhibit 2-7, 1 fSEIS 2-28, shows the airport reaching the same level of unacceptable delay at a level of 530,000 or 535,000 annual operations. Our extrapolation shows that level being reached shortly after the year 2020 (not after 2030). Another, more likely, definition of "unacceptable" level of delay may be the "practical capacity" of the airport, also as defined by the NPIAS. Under that measure, Sea-Tac is in trouble at 350,000 operations per annum (which the fSEIS seems to support). See Exhibit 2-2. The new Sea-Tac by that measure will have outgrown itself at about 445,000 operations per year (see Exhibit 2-7), or the year 2005 (see Table 2-6, 1 fSEIS 2-14). The year 2005 is the projected first year of operation of the new runway, per Table 22-7, 1 fSEIS 2-22.

All efforts to understand these issues are complicated by the unwillingness of the project's proponents to settle on one definition of "delay", to apply that (or any) definition consistently throughout discussion of all the various aspects of this issue, to apply that (or any) definition, to the poor-weather delays, and to interpret the delay figures, and the need for expansion, to the poor-weather conditions that supposedly drive the proponents' zeal for the project. Instead, the proponents flash annual operations numbers (whereas the only relevant operations number would be annual operations during curable poor-weather conditions), ill-defined delay figures, which muddle in good-weather numbers with poor-weather numbers, and otherwise provide confusion where clarity is essential.



Useful-life issues were also raised in our Comment 4-8, which can properly be discussed here, out of order, so as to present all discussion of this general problem together. In that comment, we asked for "total amount of costs of the project, including capital costs, mitigation costs,, a well as accrued financing and amortization costs". We also asked for "the cost per year of the runway's useful life" (pointing to the NPIAS service levels mentioned above), and we also sought "an analysis which derives the rate of return on investment" for the project. Only an updated raw-cost number for the nominal cost of the third runway and a grossly inaccurate & understated figure of \$1.6 billion for all Master Plan Update features were provided. (Where DID they come up with that \$1.6 billion number?) The response to Comment 4-8 totally ignores the useful-life issue. As to the cost-benefit ratio, readers are referred to "the Final EIS and Supplemental EIS .[which] presents the costs/impacts and benefits of the proposed Master Plan Update Improvements" Where? In the absence of any genuine index to the FEIS and to the fSEIS main text, one would turn to the tables of contents to find these materials. These subjects are not referred to in the tables of contents. We asked to be provided with them. They were not provided, and if they exist at all, they are lost in the murky depths of the hundreds of pages of the main texts of two different documents. If this isn't an evasion, what is it?

We stand by our original conclusion: using the same levels of delay that supposedly justify (require) construction of the third runway, that runway will need to be supplemented somehow or other on the hypothetical day in 2005 that it becomes operational. The FEIS and fSEIS themselves show that by the assessment techniques used to justify a third runway, the new runway will be obsolete when opened and 'way over capacity almost immediately thereafter.

Comments 7(D)-(1) , -(2), and -(3). (Important documents were 'incorporated by reference' in the dSEIS, which means that they were NOT actually in the document.) (Response 1-1) Apparently, the only copy of each such document was hidden away in Dennis Ossenkop's office at the new FAA facility in Renton (of all places), and it was expected that everyone (including the Port Commissioners) wishing to work with such documents would have to do so at Mr Ossenkop's workplace -- if they were fortunate enough to know that the documents were lodged there. It's

probably a good thing that the public did not know that Mr Ossenkop's work space was also a library, for we would have falling all over each other, trying to use the materials in that cramped space. If the document is important enough to 'incorporate' in the SEIS, it should actually BE in the SEIS, where people can actually read & use it. This stricture of course does not apply to standard works in the literature that are available through normal channels. It is one of the problems of the airport-expansion business that it relies on non-standard publications, which are not available in public libraries, are not commercially published, are not even GPO documents – they are, in effect, unpublished in-house documents, proprietary to particular airports, consultants, or agencies. It is hard to locate such obscure publications (just as it is hard to give them credibility). It is hard to take seriously the 'public' part of the environmental review process, when the base materials are so difficult to find, so tightly held by a handful of insiders, &, in fact, so lacking in the normal indicia of reliability (publication in recognized journals or by recognized publishing houses, peer review, identification of the author(s), adherence to normal documentation practices).

(Comments on air-quality issues discussed in the DEIS were submitted in considerable number. The responses to those comments were published in Appendix R of the FEIS along with all the other comments on all other aspects of the DEIS. The dSEIS deals with some of those issues by incorporating Appendix R in its entirety – “by reference”.) But there was (& is) no index to Appendix R; the air-quality comments and responses are scattered throughout the Appendix; & the reader has no way of knowing what is supposedly included in the dSEIS by the off-hand reference to an Appendix. No reasonable person would suppose that a reader (if lucky enough to receive a copy of that Appendix – many commenters did not) would work through the two-hundred-plus pages of Appendix R, trying to glean what the FAA/POS team thought was relevant for the SEIS. This problem was not addressed in the response (1-I) & to this day, readers still do not know what particular responses were referenced.

Comment 7(D)-4 and Comment 7(D)-5: Response 4-A (the comment addressed the failure of the dSEIS to study cumulative impacts

*Replies of the Regional Commission on Airport Affairs  
(RCAA) to the Responses of FAA/POS to the Comments  
of RCAA on the Draft Supplemental EIS (dSEIS) to the  
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of other projects known to be planned for the immediate Sea-Tac area, taken together with impacts from the MPU projects. We asked that the various projects be identified specifically, "one by one" [7(D)-4(a)], and the present state of planning for each set forth. We asked if it were not true that ranges of possible impacts for the projects could be forecasted and considered.) The Response misleadingly says that an analysis of cumulative impacts was provided in the FEIS and fSEIS. One would not know it from the Response, but ch. 4, section 4 of the fSEIS ("Cumulative Impacts"), while indeed listing seven projects in the area, provides no details as to the state of planning for any save the Des Moines Creek Technology Campus, which seems to have stalled, if one reads the text correctly. However, the actual impacts of these projects are in fact NOT discussed in the "Cumulative Impacts" section or in the formal response in Appendix F. This is a very serious non-response. We will be calling specific attention to it in our discussions with parties litigating with the Port and FAA about the environmental-review process.

Comment 8(E) (Hearing on March 4 was scheduled for maximally inconvenient time & place). The response (1-A) was that this maximally inconvenient time & place were selected to make it possible for people working various shifts to attend, which is absurd.

#### **Part IV: Conclusions**

##### **Summary**

Our review of the fSEIS & the official responses to our prior comments leads to the conclusion that the fSEIS, like the earlier environmental-review papers in this series, does not meet the burden placed by law upon the proponents – to present a full, fair, dispassionate environmental review, containing an accurate & complete project description, a valid statement of the need (with full cost/benefit analysis), a discussion of alternatives (whether preferred or sponsored by the proponents or not), & a full, comprehensible description of possible adverse impacts together with proposed measures of mitigation of those impacts, recognizing any impacts that cannot be mitigated.

The fundamental flaws hitherto seen in the dEIS, FEIS, & dSEIS persist in the fSEIS. None of these documents, and not all of them taken together, provide an accurate or reliable survey of the important environmental impacts that can reasonably be expected to occur during construction or during operation. Impacts having been analyzed incompletely, mitigation measures suggested in the FEIS & fSEIS are also insufficient. The 'Purpose & Need' statement remains inadequate in terms of need (from a transportation-planning perspective) & in terms of cost effectiveness. Conflicting projections of future usage of the Airport are presented, casting doubt on all such projections & on the conclusions drawn from them as to future impacts, necessary mitigation, future benefits, & useful life of the proposed improvements.

### Construction impacts

Construction impacts are understated. Important details remain unaddressed. The mitigation proposals for built-up areas are vague & inadequate. Most of the RCAA comments on this subject, aimed at inducing the proponents to provide sufficient detail so that the impacts could be assessed independently, were ignored. So much is left out that a further environmental review will surely be necessary when the proponents settle on routes & methods for hauling fill. Of all the areas where mitigation needs examination in this project, more is known about, & more mitigation techniques exist for, large-scale construction than any other. It is particularly odd that the proponents have so little grasp of the damage that massive dirt-hauling will have on freeways and city streets around the Airport.

### Air-quality concerns

In their responses to our comments, the proponents announced their refusal to consider two major regulatory air-quality changes that are in the pipeline – greater restrictions on ozone emissions and on particulates.

The focus of the air-quality work reported in the FEIS and fSEIS has been modelling of ground-traffic air pollution. This provides masses of impressive but not particularly valuable data in EISes, but does not deal

with pollution from aircraft. The implications for human health from aircraft-generated pollution are significant, but ignored by the proponents

Noise issues.

The noise data presented in the fSEIS are incomplete.

The noise data presented in the fSEIS are unreliable.

The noise data presented in the fSEIS are inadequate.

The forecasts of future impacts from the third runway are therefore unreliable.

Much more adequate, complete, & reliable noise data, & impact estimates, could have been presented in the fSEIS had our suggestions, found in Part III of our comments, been heeded.

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Despite the ready availability of more adequate integrated noise models (INM) for use in producing charts & contour maps of noise levels, & our request (Comment 3-4)) that the most recent version of the INM be used, the fSEIS continued to use the outdated INM ver. 4.11. The fSEIS does not present data for all of the relevant LDN levels, leaving out, as it does, 55, and the intervals above 75. Data are not presented for noise metrics other than the outmoded 65 LDN (annual average with unequal treatment of night-time noise). The estimates of future noise impacts lack credibility because they are prepared on the sole basis of contour maps of the 65 LDN noise metric; the maps themselves, no matter how colorful, are not credible because the computer-modelling program used to prepare them is not the state-of-the-art program. As used at Sea-Tac, the older computer-modelling program is known to understate 65-LDN noise systematically. In short, the specious tables and contour maps in section 5-3 of the fSEIS rest on flawed assumptions & fail to present an accurate picture of future (or present) noise levels.

It is difficult to understand the choices made by the POS & FAA in estimating future noise impacts without imputing unworthy motives: from our comments, from the Expert Arbitration Panel's final order on noise issues, from a host of citizen and local-government comments, from

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(RCAA) to the Responses of FAA/POS to the Comments  
of RCAA on the Draft Supplemental EIS (dSEIS) to the  
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advisory materials from the US EPA, from other sources, the third-runway proponents were well aware that their noise-measuring techniques were substandard. In addition, they have systematically ignored the FAA's own official position on remediation of noise impacts in areas outside 65 LDN contour lines (areas receiving less noise per that metric). Each questionable choice made in this work was always in the direction of understating the noise experienced on the ground.

Any independent efforts to replicate the work, either with INM ver. 4.11 or ver. 5.0 were blocked by the refusal to provide a statement of the assumptions used by the the FAA/POS team in processing data from the Port's noise monitors. Only now, far too late in the process, is it claimed that those assumptions are available – somewhere undefined.

In consequence of the flaws in the noise-modelling work, the mitigation suggested by the fSEIS is without valid basis, & is certainly insufficient. The proponents' mitigation program suffers two more, equally fatal, flaws. (1) it is generally limited to work that can be funded in whole or part by the FAA under the so-called Part 150 program. (Requests in our comments for details of spending of non-FAA funds by the Port were ignored.); (2) then the limitations of the Part 150 program were once again misapplied, with the result of excluding possible (& in our view, essential) mitigation with Federal funds outside the questionably-drawn 65 contours.

#### Wetlands & water quality

It is hard to believe that the proponents can be so indifferent to the water-quality implications of this project, or so unresponsive to sensible comments. Fortunately, the water-quality issues are not resolvable by the say-so of either the FAA or the POS. Fortunately, also, the proponents are now thoroughly of record as providing inconsistent information to various participants.

### Socio-economic effects

One can understand the reluctance of the proponents of Sea-Tac expansion to deal realistically with socio-economic effects, or comments relating thereto, especially if based on the recent H-O-K study. If one were to take the official position, including responses to comments, as a true indication of the state of mind of the responsible officials in the expansion camp, one would have to conclude that there is absolutely no comprehension of the problems that the third runway will cause. But it is obvious to the discerning reader that the H-O-K study has much exercised the minds of those whose task it is to move this project through the environmental review without damaging its prospects. The responses & non-responses to our comments on this general subject clearly show that there are no significant objections to the methodology or results of the H-O-K study – but also no disposition to do realistic assays of probable socio-economic impacts or of measures to mitigate them. The indifference to the plight of the Highline schools is noteworthy. Fortunately, wiser heads are prevailing at higher levels, and the Port Commissioners are now willing to enter into serious negotiations with the School District. But still unfaced are the major issues of property devaluation, consequent loss of tax base, change in demographic profiles, and the like. Our comments on this point brought forth responses (& non-responses) demonstrating the unwillingness of the proponents to face up to these issues.

### Alternatives – still ignored

Our comments & the responses to them demonstrate that the proponents are still unwilling to look at obvious alternatives in a comprehending way. A five-year delay in the third runway going operational poses many opportunities for implementation of alternative measures that have a good potential for obviating the need (if there is indeed a need) for many years to come.

### Planning horizon

The proponents are unable to explain how they choose a near-term planning horizon for expansion but a far-term one for mitigation, especially in the face of instructions from higher authorities to go long-term. A far-term horizon, of course, sweeps more negative impacts into the equation. The short-sighted planning horizon renders it possible to pretend that the third runway has a long useful life -- one just doesn't look far enough ahead to see the day of obsolescence. The risk is that with this approach the planning horizon will soon have to be closer in time than the start of construction!

### Cost

The proponents are working hard to avoid giving an understandable, factual cost/benefits analysis, no matter how often we ask for it. Their use of "delay" as the driving factor suffers (or benefits) from constant shifting from one definition of delay to another (or no definition at all on some occasions), a practice that they fail to correct, despite comments on the matter. Cost justifications are cloaked in a second numbers game, using one level of operations to show unacceptable delay that mandates a third runway, but a much higher level of operations to show unacceptable delay that would render the third runway obsolete -- exceeding capacity. The reluctance to deal forthrightly with our comments on these matters exposes the unreliability of the rudimentary cost/benefit justification.

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# Washington State Senate

**Olympia Office:**  
405 John A. Cherberg Building  
PO Box 40482  
Olympia, WA 98504-0482

**Senator Julia Patterson**  
33rd Legislative District

(360) 786-7664  
Toll-Free Hotline: 1-800-562-6000  
TTY: 1-800-635-9993  
e-mail: patterso\_ju@leg.wa.gov

June 23, 1997

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**REC'D ANM-610  
PLAN; PGM, & CAP BR**

**JUN 24 1997**

ANM-610

Mr. Dennis Ossenkop  
Federal Aviation Administration  
Northwest Mountain Region  
1601 Lind Avenue S.W.  
Renton, WA 98055-4056

Ms. Barbara Hinkle  
Health, Safety, and Environmental Management  
Port of Seattle  
P. O. Box 68727  
Seattle, WA 98168

Re: Comment on the Final Supplemental Environmental Impact Statement  
for the Proposed Master Plan Update Development Actions at Seattle-  
Tacoma International Airport

Dear Mr. Ossenkop and Ms. Hinkle:

On behalf of my constituents in the 33<sup>rd</sup> Legislative District, which includes a large portion of the affected area, I would like to express my concerns regarding the Final Supplemental Environmental Impact Statement (Final SEIS) for the Proposed Master Plan Update Development Actions at Sea-Tac Airport. This mammoth project, if ever completed, will destroy the very character and nature of the communities that I represent.

The final SEIS does not fully analyze the significant environmental impacts of the third runway and other Master Plan Update development actions. It does not examine the real impacts on the local and regional roads, on schools and on the community of thousands of daily truck trips transporting millions of cubic yards of fill dirt six days a week for at least five years. This will be extremely disruptive to the local communities and businesses; and the schools, whose buses must compete for space with these trucks to safely transport its students.

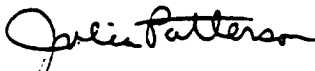
The impacts of noise on the community are not completely analyzed. It is difficult for even a lay person to swallow the idea that although operations will increase, that noise from the airport will continue to decrease. The Expert Arbitration Panel on Noise stated in its Final Decision that any reductions in noise that have already been achieved will be erased and noise will increase with increasing operations at the airport.

It is also difficult to accept that with increasing operations the number of major air pollutants will decrease, that water quality will not be affected by a large increase of storm water runoff resulting from the addition of many acres of new paved, impervious surfaces. The Final SEIS ignores completely the concerns of the communities of the loss of wetlands and the effect on the Des Moines and Miller Creek drainage basin.

I am extremely concerned that the Final SEIS did not address reasonable mitigation for the affected communities. The state of Washington recently sponsored and funded a year-long study of mitigation measures necessary to address the adverse impacts of the expansion of Sea-Tac Airport. This study shows the mitigation costs to be almost # Billion, and the study is not complete. It does not include the City of SeaTac and surrounding impacted unincorporated areas, nor does it contain a complete tally of the costs. When completed, the mitigation study will show costs much greater than \$3 Billion.

This project will have a devastating impact on the Airport's surrounding communities. These communities have waited 25 years for mitigation from the second runway, and are extremely concerned that they will have to wait another 25 years for mitigation from the third runway. I sincerely hope that the FAA and the Port will address the concerns that I hold and that my constituents hold in the development of a third runway and other actions at the Airport.

Sincerely,



Julia Patterson  
State Senator  
33<sup>rd</sup> District

## **APPENDIX E**

**AR 013314**

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## APPENDIX E

### COMMENTS ON THE FINAL AIR CONFORMITY ANALYSIS.

This appendix of the Record of Decision (ROD) summarizes the comments received concerning the *Final Supplemental Environmental Impact Statement for Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport* dated May 13, 1997, including the Final Conformity Analysis. Letters numbered A-1 through A-10 reflect comments received concerning the air quality analysis and the Final Conformity Analysis. Appendix D contains responses to comments received concerning non-air quality related issues.

A-1 **State Representative Rod Blalock**, P.O. Box 40600, Olympia, WA 98504-0600 May 27, 1997

1. Construction emissions violate the de minimis threshold for NOx. No mitigation is provided nor is there a mention of the violation.

**Response:** The conformity analysis presented in the Final Supplemental EIS reflects the requisite analysis mandated by the Clean Air Act general conformity regulations. As this analysis shows, construction activity will generate emissions while the proposed improvements will result in a reduction in air emissions. While construction related emissions were examined, by regulation they cannot be considered in isolation of other project impacts. As required, the air quality evaluation must consider all direct and indirect emissions, and thus requires that the project identify increases in emissions from the project as well as air emission reduction benefits.

2. Measurements per the Memorandum of Agreement (MOA) are not complete, and should be complete "before the Final Conformity Analysis is approved."

**Response:** While existing conditions are of interest in understanding the context of future conditions, those conditions are not relevant to the conformity analysis. The conformity analysis was based on modeling that uses conservative assumptions to predict worst case conditions. The monitoring that has been conducted to date under the MOA confirms that the modeling results substantially overpredict air pollutant concentrations. See also letters numbered A-7 through A-9 from the U.S Environmental Protection Agency (US EPA), Puget Sound Air Pollution Control Agency (PSAPCA), and Department of Ecology (Ecology) concerning the adequacy of the conformity analysis. The three regulatory agencies with jurisdiction over air issues (US EPA, DOE and PSAPCA) have agreed that the de minimis finding was adequately supported.

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A-2 State Representative Karen Keiser, P.O. Box 40600, Olympia, WA 98504-0600 June 16, 1997

The commentor suggested that "The Final Conformity Analysis should be delayed" and should include the following be incorporate in the Final Conformity Analysis:

1. "Complete study efforts to address Nitrogen Oxides and ground level residue/particulates from jet fuel and other toxic substances."

**Response:** As noted in Final Supplemental EIS Appendix B, the Port of Seattle has entered into a Memorandum of Agreement to measure existing air pollutant conditions in the vicinity of Sea-Tac Airport. During the winter 1996/97, measurements of Carbon Monoxide were completed showing concentrations to be less than the ambient air quality standards. During 1997/98 measurements of NOx and particulates will be conducted. While existing conditions are of interest in understanding the context of future conditions, those conditions are not relevant to the conformity analysis.

2. "Provide a clearly defined mitigation plan for" mitigation for construction emissions that exceed the de minimis.

The conformity analysis presented in the Final Supplemental EIS reflects the requisite analysis mandated by the Clean Air Act general conformity regulations. While construction related emissions were examined, by regulation they can not be considered in isolation of other project impacts. As required, the air quality evaluation must consider all direct and indirect emissions. Because the de minimis levels are not exceeded, and because the pollutant concentrations "With Project" are either less than the standard, or for modeled exceedances, the "With Project" concentrations are less than the Do-Nothing, no mitigation is required. See also letters numbered A-7 through A-9 from the U.S EPA, Puget Sound Air Pollution Control Agency (PSAPCA), and Department of Ecology concerning the adequacy of the conformity analysis.

A-3 Cutler & Stanfield, June 20, 1997

1. "FAA has fixed only the most obvious errors in data input. More extensive and far-reaching flaws in the analysis, identified by the ACC and other commentors, were left unchanged" (Pg 2)

**Response:** The air quality and conformity analysis presented in the Final Supplemental EIS reflect revisions based on issues raised with the Draft Supplemental EIS analysis. Comments on the Draft Supplemental EIS identified issues which were corrected, and also raised questions concerning appropriate and correct analysis data. Appendix F of the Final EIS responds to those issues.

2. "The Final Conformity Determination achieves this anomalous result in large part by offsetting increases in emissions associated with expansion of the airfield with decreases attributable to landside improvements -- particularly expansion and upgrading of parking and terminal access roads." (Pg 2)

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**Response:** The conformity analysis presented in the Final Supplemental EIS reflects the requisite analysis mandated by the Clean Air Act general conformity regulations. As required, the air quality evaluation must consider all direct and indirect emissions.

3. "... the FAA opted to rely on the admittedly inaccurate modeling results already available. According to FAA, the omission of construction equipment is canceled out by the previous overestimate of truck emissions from haul activities. The Final Conformity Determination is based on this conjecture, without any attempt to verify its validity.... In short, the air quality analysis of construction impacts remains fundamentally flawed, and should not serve as the basis for a conformity determination." (Pg 3)

**Response:** Issues associated with the evaluation of construction emissions are addressed in the Final Supplemental EIS, Appendix B and Appendix F.

4. "Neither the FAA nor its consultants have yet produced an explanation for their assertion that aircraft emissions of nitrogen oxides (NOx) will decline even as operations increase. This result defies common sense as well as basic scientific principles." (Pg 4)

**Response:** See response to comments 6-Q and 10-Q in Appendix F of the Final Supplemental EIS.

5. "By arbitrarily confining its analysis to a 13-year planning horizon, the Final Conformity Determination fails to comply with the Clean Air Act requirements that air quality impacts be evaluated for the year in which direct and indirect emissions will be the greatest." (Pg 4)

**Response:** The Clean Air Act requires the consideration of reasonably foreseeable emissions. As has been documented in the Final Supplemental EIS, emissions beyond 2010 are not reasonably foreseeable. While emissions were determined to be reasonably unforeseeable beyond 2010, Appendix D of the Final Supplemental EIS examined alternative forecasts and considered impacts post 2010. Appendix B of the Final Supplemental EIS presents the analysis of greatest year emissions.

A-4 **Debi DesMarais**, CASE, 19900 - 4th Avenue SW, Normandy Park, WA 98166 June 20, 1997

1. Commentor indicated that it is not clear what changes were made in issuing the FSEIS - more detail is requested.

**Response:** A detailed listing of all changes made in the air quality analysis is provided in the Final Supplemental EIS in Appendix B, Attachment E. As was noted in Appendix B, a more detailed listing of the changes is available for public review in the FAA reference documents.

2. Commentor noted that no changes were made to the main text, despite numerous questions. Concerns with the responses relate to:
- Increase in peak hour departures
  - 2,500 ft separation between runways be modeled -- FAA used same time and distance data in the Do-Nothing and With Project
  - modeling has not included dual simultaneous departure capability
  - Emissions from SASA not included
  - Cumulative impact analysis was not completed

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- Concerns with particulate emissions
  - State conformity rule was ignored
  - Requested all reasonably foreseeable emissions
  - Aircraft activity levels and NOx emissions
  - Conduct a transportation and general conformity determination for CO, O3, and PM
  - Prepare and present a mitigation strategy

**Response:** Each of the issues raised by this commentor have been addressed in responses to comments in Final EIS, Volume 4 Appendix R (see response to comments R-10-1 through R-10-68) and Final Supplemental EIS Volume 2 Appendix B and Appendix F (responses 6-A through 6-AB). Based on the issue and the responses noted, only appropriate changes were made to the main air quality text in either Chapter IV of the Final EIS or Section 5-2 of the Final Supplemental EIS.

A-5 A. Brown, 239 SW 189th Place, Seattle, WA 98166 June 23, 1997

1. Commented that the models are grossly inadequate and that the analysis is invalid.

**Response:** The models used in the air quality conformity analysis are EPA approved models. As noted in the Final Supplemental EIS and conformity analysis, these models are conservative and are intended to predict worst case conditions. Recent monitoring experience for Carbon Monoxide confirms that the models used significantly overpredict actual concentrations. See also letters numbered A-7 through A-9 from the U.S EPA, Puget Sound Air Pollution Control Agency (PSAPCA), and Department of Ecology concerning the adequacy of the conformity analysis.

2. "It did not provide substantive answers to substantive questions."

**Response:** Final EIS Appendix R and Final Supplemental EIS contain detailed responses to comments concerning air quality issues.

3. "... the costs, and the amount of fill continue to escalate while the probable useful life of the 'Third' runway dwindles to zero."

**Response:** All comments concerning the cost of the project, amount of fill, and the useful life of the project were responded to in the Final Supplemental EIS, Appendix F.

4. "The air pollution estimates need to consider the pollution from construction traffic, mining and road repair based on the real amount of fill that's needed ...."

**Response:** The conformity analysis presented in the Final Supplemental EIS reflects the requisite analysis mandated by the Clean Air Act general conformity regulations. As required, the air quality evaluation considered all direct and indirect emissions, including construction and fill related activity.

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5. "The SEIS conclusions defy physics and are inconsistent with the area's wind patterns."

**Response:** The conformity analysis presented in the Final Supplemental EIS reflects the requisite analysis mandated by the Clean Air Act general conformity regulations. The technical analysis was developed in consultation with local air agencies and has been approved by the agencies with jurisdiction over air quality (US EPA, DOE, PSAPCA). As required, the air quality evaluation considered all direct and indirect emissions. In accordance with EPA modeling guidelines, the worst case concentrations were identified based on an examination of historic wind conditions.

6. "A realistic cumulative air pollution impact assessment using theoretical capacity operations is needed."

**Response:** The conformity analysis presented in the Final Supplemental EIS reflects the requisite analysis mandated by the Clean Air Act general conformity regulations. As required, the air quality evaluation considered all direct and indirect emissions.

**A-6 Marie Feckley, 15721 - 4<sup>th</sup> Ave. SW, Burien, WA 98166**

1. Commentor questioned that the predominant air pollution source in the Airport area is surface transportation vehicles.

**Response:** See response to comment R-10-5 in Appendix R of the Final EIS. As is shown, based on an equivalent distance traveled, automobiles create greater emissions.

2. Commentor noted that an airline is instituting penalties for their flights that are late and that Sea-Tac is recognized for low-visibility. She indicated that this "should be reasons to be considered for not adding another runway..."

**Response:** The commentor noted that United Airlines was beginning a practice of canceling seat assignments on flights where passengers do not check-in within 20 minutes before departure and that TWA had announced awarding passengers extra frequent flyer mileage for late flights. While Sea-Tac has been recognized for its low-visibility operating capability, this capability relates to the ability to safely move aircraft while on the ground. These factors would not obviate the need for a Third Runway at Sea-Tac, as they would not alter the poor weather single arrival constraint.

**A-7 Dennis McLerran, PSAPCA, June 23, 1997**

- "PSAPCA finds that the emission inventory data and analysis provided in the FSEIS, including the associated air quality technical memoranda, provide a sufficient technical basis to conclude that the de-minimis threshold will not be exceeded."

**Response:** Comments acknowledged.

- In that the project sponsors conducted a conformity determination that was not legally required anyway, PSAPCA notes that the FSEIS charts and figures concerning carbon



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monoxide ... should be clearly labeled as 'modeled' concentration data to avoid confusion with CO levels recently monitored to be within the federal standard in the Sea-Tac area."

**Response:** Comment acknowledged.

**A-8 Joseph Williams, DOE, June 23, 1997**

- "Ecology has reviewed and concurs with the final Conformity conclusion contained in the FSEIS that the project will not result in emissions that would equal or exceed the applicable de minimis threshold rates, nor be considered regionally significant with regard to air pollutant emissions, and that it is consistent with the State Implementation Plan (SIP) for air quality."

**Response:** Comment acknowledged.

**A-9 Anita Frankel, US. EPA, June 23, 1997**

- "Based on our review of the FSEIS, our concerns have now been adequately addressed and the de minimis thresholds have not been exceeded for general conformity under the CAA."

**Response:** Comment acknowledged.

**A-10 Julia Patterson, State Senate, P.O. Box 40482, Olympia, WA, June 23, 1997**

1. "It is quite illogical to state, however, that moving millions of cubic yards of fill dirt by double dump trucks for five years and the construction equipment needed to place the fill dirt will not impact the air quality in and around the airport."

**Response:** The conformity analysis presented in the Final Supplemental EIS reflects the requisite analysis mandated by the Clean Air Act general conformity regulations. While construction related emissions were examined, by regulation they can not be considered in isolation of other project impacts. As required, the air quality evaluation must consider all direct and indirect emissions, and included projected construction emissions. Because the de minimis levels are not exceeded, and because the pollutant concentrations "With Project" are either less than the standard, or for modeled exceedances, the "With Project" concentrations are less than the Do-Nothing, no mitigation is required. See also letters numbered A-7 through A-9 from the U.S EPA, Puget Sound Air Pollution Control Agency (PSAPCA), and Department of Ecology concerning the adequacy of the conformity analysis.

2. "I find it hard to believe that the dramatic increase in operations at the Airport will not impact air quality."

**Response:** The conformity analysis presented in the Final Supplemental EIS reflects the requisite analysis mandated by the Clean Air Act general conformity regulations. As required,

---

the air quality evaluation considered all direct and indirect emissions, including a detailed evaluation of traffic related emissions under the "With Project" and Do-Nothing alternatives.

3. "By cutting off the analysis at 2010, even through operations are expected to increase beyond the 2010 projected level and surface traffic will increase accordingly, the FAA will force the Puget Sound Region into non-attainment and worsen air quality."

**Response:** As is noted in the Final Supplemental EIS, forecasting demand beyond year 2010 presents such uncertainties concerning activity, and the context in which the Airport will operate, that these projections would have little meaning. With the exception of aircraft noise exposure impacts, Federal and state regulations will require that significant adverse impacts not occur in future time frames. As is shown in Appendix D of the Final Supplemental EIS, while emissions are not reasonably foreseeable beyond 2010, the generalized analysis indicates that emissions post 2010 would not likely result in significant adverse impact. Recognizing the issues associated with aircraft noise, the FAA is requiring a future assessment of noise, as documented in Section V.D of the ROD.

STATE REPRESENTATIVE  
33rd DISTRICT  
ROD BLALOCK

State of  
Washington  
House of  
Representatives

TRANSPORTATION POLICY & BUDGET  
ASSISTANT RANKING MINORITY MEMBER  
CRIMINAL JUSTICE & CORRECTIONS



REC'D ANM-610  
PLAN; PGM, & CAP BR

MAY 28 1997

ANM-610 \_\_\_\_\_

May 27, 1997

A-1

Mr. Dennis Ossenkop  
ANM-611  
FAA Northwest Region  
Room 540  
1601 Lind Ave. SW  
Renton, WA 98055-4056

Dear Mr. Ossenkop:

I am writing to comment on the Final Conformity Analysis for air quality for the proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport.

Two concerns with the Final Conformity Analysis are detailed below.

- 1.) Appendix B, Attachment E-3 of the Final SEIS contains a chart listing the projected construction emissions for CO, NOx and VOCs for four alternatives. The two most likely alternatives, Alternative A and Alternative C, both contain violations of the *de minimis* threshold for NOx. No mitigation plan is listed for this violation, nor is there any mention of efforts to avoid a violation.
- 2.) The Memorandum of Agreement between the Port of Seattle, Department of Ecology and Puget Sound Pollution Control Agency for an Air Quality Monitoring Program is not complete. Only the first part of the study dealing with CO is complete. No action has been taken on the remainder of the study dealing with NOx, Ground level residue deposition associated with aircraft fuel and Ground level residue-related toxic substances. It is my understanding that the Port of Seattle has not yet released the money to complete this study.

I believe a mitigation plan for the *de minimis* violations for NOx and completion of the Memorandum of Agreement on Air Quality Monitoring Program are necessary before the Final Conformity Analysis is approved.

Respectfully Yours,

LEGISLATIVE OFFICE: 322 JOHN L. O'BRIEN BUILDING, PO BOX 40600, OLYMPIA, WA 98504-0600 • (360) 786-7834  
HOTLINE DURING SESSION: 1-800-562-6000 • TDD: 1-800-635-9993  
HOME PHONE: (206) 824-3541

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AR 013322

Final Air Conformity Comments  
May 27, 1997  
Page 2

A handwritten signature in black ink, appearing to read "Rod Blalock". The signature is stylized with large, sweeping letters and a prominent flourish at the end.

Rod Blalock  
State Representative  
33<sup>rd</sup> District, Position 1

cc: U.S. Congressman Adam Smith  
Sen. Julia Patterson  
Ms. Debi DesMarais, RCAA  
Ken Reid, ACC  
Joseph R. Williams, Air Quality Program, DOE  
Dennis J. McLerran, Puget Sound Air Pollution Control Authority  
Chuck Clarke, United States Environmental Protection Agency

AR 013323

STATE REPRESENTATIVE  
33rd DISTRICT  
KAREN KEISER

June 16, 1997

State of  
Washington  
House of  
Representatives

APPROPRIATIONS  
EDUCATION  
FINANCIAL INSTITUTIONS  
& INSURANCE



A-2

Mr. Dennis Ossenkop  
ANM-611  
FAA Northwest Region, Room 540  
1601 Lind Ave. S.W.  
Renton, WA 98055-4056

REC'D  
PLAN; PGI

JUN 18 1997

ANM-610

Dear Mr. Ossenkop:

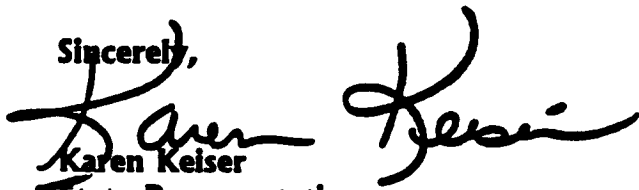
I am requesting that the following suggestions be incorporated into the Final Conformity Analysis for air quality under the proposed Master Plan Update of Sea-Tac Airport.

The air quality testing conducted to date is inconclusive and incomplete in that it fails to provide remedies for the impacts of Nitrogen Oxides. I am requesting that the Port of Seattle, in conjunction with the Department of Ecology and Puget Sound Air Pollution Control Agency per its Memorandum of Agreement with these two agencies, take the following actions:

- 1) Complete study efforts to address Nitrogen Oxides and ground level residue/particulates from jet fuel and other toxic substances.
- 2) Provide a clearly defined mitigation plan for Alternative A and Alternative C which both exceed minimum thresholds for Nitrogen Oxides. The absence of a mitigation plan where the emissions exceed minimum thresholds is unacceptable.

The Final Conformity Analysis should be delayed until the completion and subsequent report is issued on these results.

Sincerely,

  
Karen Keiser  
State Representative  
33<sup>rd</sup> District

KLK:se

### CUTLER & STANFIELD, L.L.P.

700 FOURTEENTH STREET, N.W.  
WASHINGTON, D.C. 20005-2014  
TELEPHONE: (202) 624-6400  
FACSIMILE: (202) 624-6410

ELIOT R. CUTLER  
JEFFREY L. STANFIELD  
SHEILA D. JONES  
PERRY M. ROSEN  
PETER J. KIRSCH  
BARRY CONATY  
STEPHEN H. KAPLAN\*  
FAIGE E. REFFE  
BYRON KEITH HUFFMAN, JR.  
SARAH M. ROCKWELL\*  
KATHERINE B. ANDRUS  
MARC R. BRUNER  
FRANÇOISE M. CARRIER  
CHRISTOPHER M. KAMPER\*  
WILLIAM G. MALLEY  
DANA C. NIFOBI  
BARBARA PALEY  
W. ERIC PILSK  
TIM A. POMLE  
JOHN E. PUTNAM  
THOMAS D. ROTH  
\*NOT ADMITTED IN DC

A-3

875 BROADWAY  
DENVER, COLORADO 80202  
TELEPHONE (303) 825-7000  
FAX (303) 828-7000

June 20, 1997

#### VIA FACSIMILE TRANSMISSION

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  
Final 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 final general conformity determination for the proposed expansion of Seattle-Tacoma International Airport ("Sea-Tac" or the "Airport").<sup>1</sup> As you are aware, the communities which make up the ACC are located in the immediate vicinity of the Airport and would be directly affected by this massive construction project which will, if

<sup>1</sup> Fed. Aviation Admin. and Port of Seattle, Final Supplemental Environmental Impact Statement for Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport ("FSEIS") (May 1997), Appendix B - Final Air Quality Conformity Determination.

Mr. Dennis Ossenkop  
June 20, 1997  
Page 2

approved, ultimately result in hundreds of thousands of additional aircraft operations and related surface traffic.

The ACC has submitted extensive comments on the air quality analysis previously prepared for this project.<sup>2</sup> We will not reiterate those comments. In light of the wholly unsatisfactory responses we have received to date from the FAA and the Port of Seattle, we emphasize that our previous criticisms remain in effect.

The Final Conformity Determination purports to have "corrected" the air quality analysis, and therefore claims to have addressed the concerns raised by comments on both the initial draft conformity determination and the March 1997 "revised" draft. In fact, even a cursory review of the "response" to comments reveals that the FAA has fixed only the most obvious errors in data input. More extensive and far-reaching flaws in the analysis, identified by the ACC and other commenters, were left unchanged. Not coincidentally, the corrections which the FAA and its consultants deigned to make did not disturb their implausible conclusion that the airport expansion will have only a *de minimis* impact on air quality in the Puget Sound region.

The Final Conformity Determination achieves this anomalous result in large part by offsetting increases in emissions associated with expansion of the airfield with decreases attributable to landside improvements – particularly the expansion and upgrading of parking and terminal access roads. In so doing, the FAA masks the environmental cost of the largest component of the Master Plan Development Actions – the construction of a third runway – and creates the false impression that this project would be environmentally beneficial in comparison with the "No-Action" scenario. In addition, the conclusions in the Final Conformity Determination are infected by the fundamental flaws discussed below.

A. The Final Conformity Determination Perpetuates Errors in the Analysis of Construction Impacts

The Final Conformity Determination trivializes the air quality impacts which will inevitably result from construction of the third runway by systematically underestimating the time and the equipment required to excavate, transport, and put in place more than 26 million

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<sup>2</sup> These comments, and the expert reports appended thereto, are incorporated by reference in this letter. See Letter from Perry Rosen to Dennis Ossenkop re: Comments of the Airport Communities Coalition ("ACC") on the FAA's Updated Draft Air Quality Conformity Determination for the Proposed Expansion of Seattle-Tacoma International Airport (Mar. 2, 1997); 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).

Mr. Dennis Ossenkop  
June 20, 1997  
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cubic yards of dirt. The inadequacy of the FAA's analysis of air quality impacts was exposed by the U.S. Environmental Protection Agency, which called attention to the fact that emissions from construction equipment were not specifically identified and were therefore inappropriately excluded from the calculations of total emissions.<sup>1</sup> This omission is particularly significant because peak earth movement and construction haul activity for the third runway is projected to coincide with terminal and landside construction.<sup>2</sup>

Rather than correcting this error (and thereby risk changing the result of the previous analysis), the FAA opted to rely on the admittedly inaccurate modeling results already available. According to the FAA, the omission of construction equipment is canceled out by the previous overestimate of truck emissions from haul activities.<sup>3</sup> The Final Conformity Determination is based on this conjecture, without any attempt to verify its validity. Neither the Clean Air Act nor its implementing regulations allow this kind of guessing game to substitute for a scientific analysis of air quality impacts.

Furthermore, this *post hoc* justification rests on a number of suspect and entirely unsupported assumptions. First, it is not at all apparent that the scenario in "Case C" overestimates the number of trucks needed to transport dirt or the duration of the haul period.<sup>4</sup> Second, not all construction-related emissions are equivalent. Suggesting that emissions from on-road dump trucks are identical in kind and amount to off-road diesel construction equipment strains credulity. Third, the FAA's claim that Case C "reflects the highest emissions of any case evaluated" and therefore represents a worst case analysis<sup>5</sup> begs the question of whether the cases initially evaluated accurately represented the emissions likely to result from these activities. In short, the air quality analysis of construction impacts remains fundamentally flawed, and should not serve as the basis for a conformity determination.

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<sup>1</sup> Letter from Chuck Clark, Regional Administrator, U.S. EPA Region X, to Dennis Ossenkop re: DSEIS for Sea-Tac Master Plan Update (Mar. 31, 1997) at 3.

<sup>2</sup> FSEIS, Appendix B at B-7.

<sup>3</sup> FSEIS, Appendix B at B-12 ("By substantially overestimating the fill related emissions, this case already incorporates worst case assumptions without specifically accounting for 'other construction' equipment.").

<sup>4</sup> See ACC, Comments on the Draft Supplemental Environmental Impact Statement (Mar. 31, 1997) at § 4.5.1.

<sup>5</sup> FSEIS, Appendix B at B-13 (emphasis added).



Mr. Dennis Ossenkop  
June 20, 1997  
Page 4

B. The Final Conformity Determination is Based on an Implausible Analysis of Aircraft Emissions

Neither the FAA nor its consultants have yet produced an explanation for their assertion that aircraft emissions of nitrogen oxides (NO<sub>x</sub>) will decline even as operations increase. This result defies common sense as well as basic scientific principles. The FAA's response to comments raising this issue manages to evade the central paradox in its conformity determination.

First, the FAA acknowledged that, if aircraft operations were held constant, NO<sub>x</sub> emissions would slightly increase due to noise reduction technology and more efficient combustion in newer aircraft.<sup>1</sup> Next, the FAA concedes that activity is not expected to remain constant, that it will in fact increase. The FAA then concedes that the time each aircraft can be expected to spend in landing, climbout and takeoff modes would be the same for both the "With Project" and the "Do-Nothing" alternatives.<sup>2</sup> Since NO<sub>x</sub> emissions are produced primarily during take-off and climb-out, the inescapable conclusion is that any significant increase in operations under the "With Project" alternative would produce a corresponding increase in NO<sub>x</sub> emissions. Yet the FAA continues to insist that an increase of 14,000 annual operations in 2010 will produce a decrease in NO<sub>x</sub> emissions.

C. The Final Conformity Determination Ignores the True Extent of Air Quality Emissions Resulting from Construction of the Third Runway

By arbitrarily confining its analysis to a 13-year planning horizon, the Final Conformity Determination fails to comply with the Clean Air Act's requirement that air quality impacts be evaluated for the year in which direct and indirect emissions will be greatest. The FAA has acknowledged that operations will be constrained in the absence of airfield expansion, while with the third runway, operations are projected to continue to increase beyond 2010. It is entirely foreseeable that the third runway will be used beyond 2010, and it is self-evident that the gap between "No-Action" and "With Project" environmental impacts therefore will widen in the future. The FAA and the Port of Seattle have sought to minimize this gap by cutting off their analysis in the year 2010, and have attempted to assuage critics of this approach with vague promises to conduct additional planning and analysis in the future.<sup>10</sup> The reality is that once the runway is built, it will be difficult, if not impossible, for either the Port of Seattle or the FAA to limit the number of aircraft using the airport, and therefore nearly impossible to limit aircraft

<sup>1</sup> FSEIS, Appendix F at F-84.

<sup>2</sup> FSEIS, Appendix F at F-84.

<sup>10</sup> See, e.g. Fed. Aviation Admin. and Port of Seattle, Draft Supplemental Environmental Impact Statement for Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport (Mar. 1997), Appendix D at D-1 to D-2.

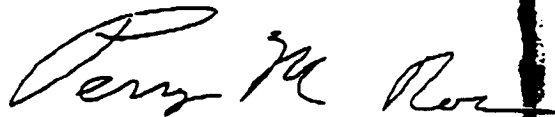
Mr. Dennis Ossenkop  
June 20, 1997  
Page 5

emissions. This likely will occur in the face of increasingly strict air quality standards,<sup>11</sup> making it all the more difficult for the Puget Sound Region to maintain its hard-won maintenance status under the Clean Air Act. In failing to assess the long-term implications of this proposal for air quality in the region, the FAA has consigned the region to worsening air quality.

**D. The FAA Cannot Approve the Sea-Tac Expansion Project Unless and Until a Legitimate Conformity Determination is Made**

The Clean Air Act prohibits the FAA from "supporting in any way" a project unless it can determine that the project will not cause or contribute to violations of air quality standards.<sup>12</sup> The analysis conducted thus far, based as it is on faulty assumptions, unsupported hypotheses, artificially constrained predictions and unabashed guesswork, simply fails to prove that the direct and indirect emissions associated with the massive construction project and the increased number of passengers, automobiles and aircraft using an expanded airport will not be cause for concern. For the reasons stated here and in our previous comments, the FAA should refrain from approving this project until such a time as the conformity analysis can provide assurance that air quality will not inexorably worsen as a result of the FAA's actions.

Sincerely,



Perry M. Rosen

cc: Ms. Barbara Hinkle, Port of Seattle  
EPA, Region X  
Puget Sound Regional Council

---

<sup>11</sup> For example, U.S. EPA currently is engaged in rulemaking which would significantly tighten air quality standards for ozone and fine particulate matter. See 61 Fed. Reg. 65715.

<sup>12</sup> 42 U.S.C. § 7506(c).

JUN 23 1997

ANM-610 \_\_\_\_\_

June 20, 1997

A-4

NW Mountain Region FAA  
Mr. Dennis Ossenkop  
1601 Lind Avenue Southwest  
Renton, WA 98055-4056

**RE: Comments on the Final Supplemental Environmental Impact Statement and  
Air Quality Conformity Determination**

Dear Mr. Ossenkop:

Please consider these comments as an addition to all previous comments I have made regarding the Air Quality (AQ) Conformity Determination and include all my comments on this issue into the Record of Decision including those submitted for the first AQ Conformity Determination period ending 6/6/96, the draft Supplement including all my comments on the draft EIS AQ section and final EIS.

These comments are being submitted as per the FAA notification of an additional public comment period extended on the draft AQ Conformity Determination and include comments regarding other issues in the Final Supplemental Environmental Impact Statement (FSEIS) that have either not been covered, comments that have not been answered, not addressed, not incorporated into text as changes, not considered as viable alternatives to the proposed action, not supported as answers by credible documentation, not considered or not properly referenced as answers to comments and etc.

**Conformity and the Clean Air Act (CAA)**

1) I am thoroughly disgusted by the FAA's lack of identifying and admitting to real known air quality (AQ) violations that have been pointed out by agencies with knowledge and ability that far exceeds FAA's ability in this area. If EPA, DOE and PSAPCA say the AQ doesn't conform to the SIP and that de-minimus thresholds are exceeded, then the FAA should defer their final analysis to these air regulatory agencies' expert judgment.

FAA conducted what they say is a quality assurance or control check on their AQ analysis and found the data to be reliable with only a couple of exceptions. I do not know what these exceptions are. It is not clear in the FSEIS where the corrections were made. What and where are they? Can FAA provide more details of the methods and results of the QA/QC check?

2) It does not appear that any changes were made to the AQ section of the FSEIS although there were numerous commentors who requested changes and corrections to the data input such as:

AR 013330

a) Request was to increase the number of aircraft operations in the peak hour without adjusting the fleet mix. This has not been considered even though requested in the draft EIS, final EIS, draft AQ Conformity Determination and draft SEIS.

No valid reason has yet been given to the commentors as to why this has not been conducted.

b) Increase the taxi distance/time in mode to include the third runway.

c) Produce emission modeling for SASA.

d) Conduct a cumulative impact analysis considering all projects named in my previous comments.

e) Consider all projects in the immediate vicinity including 509/South Access as additive to future increases in transportation related impacts.

f) Consider reasonably foreseeable emissions within the jurisdiction/control of the agency.

g) Give logical modeling results for NOx considering future prediction of increase.

FAA has dismissed these concerns and many other similar comments in every instance where the public has had opportunity to comment. Why?

I requested that the number of 63 peak hour operations departing in the future scenario be increased to at least 75 which is the number included in the article I enclosed with my comments on the draft SEIS. This many departures, according to control tower personnel, occurs in the existing condition during the morning peak hour. FAA did not increase the number above 63 in the FSEIS. Additionally, the 63 was an increase from 43.9 in the draft EIS in response to EPA's request to increase peak numbers. However, the 63 included a completely unrealistic number of light and general aviation aircraft. This adjustment in the fleet mix misrepresents operations that normally occur at Sea-Tac.

I contend that if the numbers were increased to represent the airfield capability and including a more jet oriented fleet mix, that the AQ violations would be greater and that there would be more of them as I stated in my comments on the draft SEIS AQ Conformity Determination.

I have also previously requested that the 2500 foot separation taxi distance between the third runway and easternmost runway (16L34R) be added into the model. This adjustment has not been done for future scenarios and should be done. This extra distance of taxiing and time-in-mode will produce greater CO and HC emissions over the no-build scenario. The FAA has utilized the exact same distance and time for the third runway as for the second. The model was also not adjusted for the idle time that will occur as arriving and departing aircraft wait to cross two active runways to depart or arrive on the third runway. This is another gross oversight that must be corrected.

The modeling also has not incorporated the dual-simultaneous departure capabilities of the first and third runways that the FAA Advisory Circular allows with a 2500 foot separation. Modeling should incorporate a peak-hour scenario that utilizes worst-case departure

situations which would include dual-simultaneous departures with increased temporal aircraft numbers above 75. This scenario will produce increased NOx and HC emissions. The FAA should revise the modeling in the final AQ Conformity Determination to reflect these data input considerations.

Emission modeling for the automobile, aircraft traffic and engine testing that will be performed at SASA has never been produced. The SASA final EIS was approved by the FAA, but still must be certified for compliance to all air and water quality standards by the Governor. Without a model to show what the emission inventory might cumulatively add to the local airshed, and without a tons per year inventory to understand whether de-minimus levels are exceeded or a dispersion analysis to show what potential hot-spots and/or AQ violations might occur, it is impossible to approve this part of the ALP although it is incorporated into the Master Plan Update final SEIS. It should be separated and a more thorough AQ analysis presented to the public in the form of a SASA addendum.

The FAA has insisted that they have conducted a cumulative impact analysis. I enclosed a letter I sent to Chuck Clark of EPA in my comments on the draft SEIS AQ Conformity Determination comments which quoted the draft and final EIS' examination of cumulative analysis. The letter and the quotes clearly indicate that FAA has not conducted a cumulative analysis and that it may be questionable as to whether FAA even understands the meaning of the word or has read the NEPA definition although reprinted for their convenience by EPA.

FAA has removed all particulate data from the standard airport model, the EDMS. Haul truck PM<sub>10</sub> violations predicted to occur along haul-routes specified in the draft SEIS, when added to particulate emissions from departing and arriving aircraft could produce toxic particulate and is expected to produce exceedances of the federal 24 hour standard. Haul vehicles will produce 70 tons per year of particulate matter. Without mitigation, PSAPCA Regulation on fugitive dust emissions will undoubtedly be violated.

FAA needs to consider all other projects in the immediate vicinity of the airport, including 509/South Access, International Boulevard Phase II, 28th/24th Arterial, Enplane Drive Improvements and the Parking Garage Expansion in their modeling and conformity determination. These emissions are considered reasonably foreseeable and meet the criteria for transportation conformity. These emissions can then be added to SASA, the existing International Boulevard CO inventory and etc., then incrementally increased for future scenario based upon known increased use of local roadways and airport. Mitigation measures can be offered that will offset any future increases in vehicle emissions which are then predicted to violate the federal standards. Note: 509/South Access is a Federal Project since FHWA is co-lead agency. FHWA is also obliged to perform a transportation conformity analysis.

The state conformity regulations mirror the federal, yet the Port and PSRC have ignored their site-specific responsibility to these requirements.

The FAA should include in their modeling, all reasonably foreseeable emissions within the control, jurisdiction, land or land the agency can exert some control over. In my comments on the draft SEIS AQ Conformity Determination I requested that this be produced. This information is required by the conformity provisions of the Clean Air Act. The FAA has not produced a detailed analysis of reasonably foreseeable emissions within the scope of this requirement, neither have they given reason as to why this request has been ignored.

FAA's modeling of nitrogen oxides gave indication that the results were inconsistent and illogical in comparison to several known facts. First of all, larger aircraft increased use at Sea-Tac will produce greater NOx overall. Larger aircraft will be a greater portion of the future fleet mix at Sea-Tac. There will be a greater jet fleet mix at Sea-Tac in the future which will produce more NOx. The larger engines with their high-bypass, high ratio fuel consumption will produce more NOx. Every one of these issues has been addressed by the draft and final EIS as that which is expected to occur. Yet the modeling data shows no significant increased NOx in the future which is illogical. Please refer to the tables I produced as comments on the draft SEIS AQ Conformity Determination. Those tables represent many hours of work to produce reasonable results using the FAA's own assumptions, statements and data previously presented. FAA's illogical and erroneous conclusions regarding de-minimus thresholds and NOx must be revised. EPA contends that if the data were corrected, these thresholds would be exceeded.

#### Conclusion

There has not been an honest evaluation, modeling input or results given to the agencies and public so far. FAA has failed in their duty to present truthful and forthright data. I believe FAA is withholding information from the public, and purposely minimizing the impact analysis, because they do not know how to or realize nobody can afford to mitigate the problem of AQ violations either at Sea-Tac or other busier airports across the country which also might be affected by the results of a honest approach here. However, the law is written to protect the public health and welfare and the environment. By minimizing and failing to report real world, worst-case scenarios, FAA may be knowingly creating the situation where the public good, health and welfare will be jeopardized. There is far too little to gain and too much at stake to not produce an honest EIS.

Please consider answering my comments on the previously presented AQ Determinations to:

- 1) Produce an accurate modelling
- 2) Include all emissions, both direct and indirect, reasonably foreseeable and cumulative
- 3) Give logical increases in NOx emissions considering all previous admissions
- 4) Conduct a transportation and general conformity determination for CO and O<sub>3</sub> and PM
- 5) Prepare and present a real mitigation strategy for known AQ violations and de-minimus threshold exceedances with timeline for implementation and funding commitment.

A. Brown  
239 SW 189 Place  
Seattle, WA 98166  
23 June 1997

JUN 24 1997

A-5

To: Federal Aviation Administration (FAA)  
NW Mountain Region  
1601 Lind Ave SW  
Renton WA 98055-4056  
Environmental Protection Specialist Dennis Ossenkop, ANM-611

ANM-610 \_\_\_\_\_

Subject : Comments on Air Conformity in the Sea-Tac Airport SEIS due 23 June 1997

Reference: Supplemental Environmental Impact Statement for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport, May 1997.

The referenced SEIS is based on grossly inaccurate models and is invalid. It did not provide substantive answers to substantive questions even when requester, be they an individual or an engineering consultant firm, provided compelling data to support their position. Didn't any engineers review the questions or data ?

I took a one week vacation to prepare my DSEIS comments because you refused to extend the short review period. Between the various EISs, I've spent over 1000 hours of engineering effort that you have continued to ignore. Many of my comments have been corroborated by consulting firms and by Congressional expert testimony, yet you continue to ignore the facts and questions. Some items continue to get worse. Namely, the costs, and the amount of fill <sup>1</sup> continue to escalate while the probable useful life of the "Third" runway dwindles to zero <sup>2</sup>.

The air pollution estimates need to consider the pollution from construction traffic, mining and road repair based on the real amount of fill that's needed and taking into account the amount to be excavated from the Sea-Tac Airport area. This is not a standard practice construction job and its pollution will linger for years. Removing the two seismic anomalies will increase air pollution but still isn't addressed.

The Master Plan Project clearly violates the Clean Air Act and any modeling that does not show that is so seriously flawed that it should be audited. The SEIS conclusions defy physics and are inconsistent with the area's wind patterns. **A REALISTIC CUMULATIVE air pollution impact assessment using theoretical capacity operations is needed ! !**

**The review periods were too short for the public or EPA to fully respond.**

Please include this with your Record of Decision along with copies of my Draft EIS, Final EIS, and Draft SEIS comments.

Sincerely,

*A. Brown*

A. Brown Pager (206) 654-1533, Home (206) 431-8693

<sup>1</sup> See University of Florida's SEIS comments

<sup>2</sup> "Severely congested" upon opening using FAA TAF estimates in SEIS

6) Respond to comments according to the federal regulations and give reason as to why these and previous comments have not been addressed considering the substantive nature of the information provided and the AQ agency concurrence.

Sincerely,



Debi L. DesMarais, President

C.A.S.E.

19900 4th Avenue Southwest

Normandy Park, WA 98166

(206) 824-3120

via facsimile 6/20/97

*received per Dennis phone conv.*

AR 013335



June 20, 1997

Mr. Dennis Ossenkop  
Federal Aviation Administration  
1601 Lind Ave S.w.  
Renton, Wa. 98055-4056

A-6

REC'D ANM-610  
PLAN; PGM, & CAP BR

JUN 23 1997

Re: Final Supplemental EIS  
Appendix B

ANM-610 \_\_\_\_\_

Dear Sir:

In this appendix. it is stated that the "predominate air pollution source in the Airport environs are surface transportation vehicles" and that "carbon dioxide could be exceeded regardless of whether improvements at Sea-Tac Airport due to high volume of surface traffic on International Boulevard".

In my Encyclopedia of Common Diseases in a study done on air pollution says: "The take-off of one commercial jetliner emits pollutants equivalent to 10,000 cars".

A heavily-laden aircraft, jetliner or cargo, emits a stream of exhaust fumes as they gain power to become airborne. The flight-line is closely parallel to International Boulevard and gets the blunt of this first thrust of power-gaining fuel exhaust. These fumes are forcefully blown downward into homes, schools, and businesses, and onto highways, along the flightpath, and only decreases when the plane is levelling off.

To say that pollution from airplanes is insignificant as compared to surface transportation in the very eye of the storm at Sea-Tac, is a stretch of credulity.

The Port of Seattle "Forum" for June, 1997, says that "Sea-tac is one of the four busiest airports in the Region, and one of the most technically advanced in the nation, especially, as a prototype for low-visibility operations. For such a busy and complex airport to get this rating is remarkable and extremely rare".

Another enlightening bit of information occurred in the Seattle-Post Intelligencer of May 30, 1997, under the heading "TWA, United move to curtail tardiness of airplane flights".

It says: Trans World Airlines will penalize itself for late arrivals and is going to give away extra bonus miles to frequent fliers if its flights are late- the first U.S. airline to adopt such a policy".

"United Airlines will penalize late-arriving passengers, so the passengers are going to have to show up a little earlier if they want to have a pre-assigned seat".

AR 013336

With technical advances for low-visibility and the airlines taking more responsibility for late arrivals, it seems to me that these improvements should be reasons to be considered for not adding another runway for all-weather purposes.

Bad weather flying enhances the sound of the planes as well as keeps the exhaust fumes closer to the ground as they are slower to dissipate, a very distressing situation for the school children as they are so closely situated to the impacts. People are awakened at night with loud planes, even in insulated houses-not much fun. With the prospect of a 2,500 acre airport becoming obsolete in the next century, it is foolhardy to put out \$3-billion on one runway.

Only allowing one year for the settling of the dirt in the runway construction could cause many problems to develop as the heavy planes bounce onto the runway. Cracks would become apparent and our heavy rainfalls would cause pollutants and harsh chemicals used around such a large commercial operations to reach the ground-water and our precious water source. We should not take those inherent possibilities lightly.

Sincerely yours,

*Marie Feckley*

Marie Feckley  
15721 4th Ave. S.W.  
Burien, Wa. 98166



PUGET SOUND AIR POLLUTION CONTROL AGENCY  
 KING COUNTY      KITSAP COUNTY      PIERCE COUNTY      SNOHOMISH COUNTY

A-7

REC'D ANM-610  
 PLAN; PGM, & CAP BR

JUN 25 1997

June 23, 1997

ANM-610 \_\_\_\_\_

Mr. Dennis Ossenkop  
 Environmental Protection Specialist  
 Federal Aviation Administration  
 NW Mountain Region- Airports Division  
 1601 Lind Avenue SW  
 Renton, WA 98055

Dear Mr. Ossenkop:

**SeaTac International Airport Master Plan Final Supplementary Environmental  
 Impact Statement: Comments on Air Quality Conformity Analysis**

Thank you for the opportunity to review and comment upon on the final air quality conformity analysis (Appendix B) prepared for the SeaTac International Airport Master Plan Final Supplementary Environmental Impact Statement (FSEIS).

PSAPCA, the project sponsors and other interested regulatory agencies have for the past year or more devoted considerable time and energy to resolving technical issues with air pollutant emission inventories, modeling procedures and the adequacy of draft air quality conformity determinations. We commend all parties involved for their professionalism and attention to detail in assuring the methodological soundness of the air quality analyses, the accurate interpretation of results, and compliance with state and federal clean air legislation.

PSAPCA finds that the emission inventory data and analysis provided in the FSEIS, including the associated air quality technical memoranda, provide a sufficient technical basis to conclude that the de-minimis threshold will not be exceeded.

In that the project sponsors conducted a conformity determination that was not legally required anyway, PSAPCA notes that the FSEIS charts and figures concerning carbon monoxide (CO) (pp.B19-B27) should be clearly labeled as "modeled" concentration data to avoid confusion with CO levels recently monitored to be within the federal standard in the Sea-Tac area.

Dennis J. McLerran, Air Pollution Control Officer

B O A R D O F D I R E C T O R S

Commissioner, Kitsap County  
 Member at Large  
 Mayor, Everett

Mayor, Bremerton  
 Snohomish County Council  
 King County Executive

Mayor, Tacoma  
 Mayor, Seattle  
 Pierce County Executive

110 Union Street, Suite 500, Seattle, Washington 98101-2038

(206) 343-8800

(800) 552-3565

FAX:(206) 343-7522

AR 013338

Substantial changes to the Master Plan's original phasing schedule are primarily responsible for the de minimis finding presented in the FSEIS. In the future, should additional air quality environmental analyses and/or conformity determinations be required due to unforeseen implementation delays or plan revisions, PSAPCA looks forward to providing project sponsors with up-to-date technical information and expertise.

Thanks again for this opportunity to comment.

Sincerely,



Dennis J. McLerran  
Air Pollution Control Officer

DJM:ls

cc: Tom Fitzsimmons, Ecology  
Chuck Clark, EPA-Region 10  
Joe Williams, Ecology-Air Programs

FAA8197.doc

AR 013339



A-8

REC'D ANM-610  
PLAN; PGM, & CAP BR

JUN 25 1997

ANM-610 \_\_\_\_\_

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600  
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

June 23, 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 (Ecology) has reviewed the Final Supplemental Environmental Impact Statement (FSEIS) 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 and Puget Sound Air Pollution Control Agency.

Ecology has reviewed and concurs with the final Conformity conclusion contained in the FSEIS that the project will not result in emissions that would equal or exceed the applicable de-minimis threshold rates, nor be considered regionally significant with regard to air pollution emissions, and that it is consistent with the State Implementation Plan (SIP) for air quality. We note that this conclusion is the result of significant modifications of the project. Particularly important modifications include earlier construction of terminal and landside improvements such as the North Unit Terminal and associated roadways and parking facilities, and improvements to intersections to eliminate increased air emissions.

We also note the extension of the fill activity from three years to five years. This could help mitigate the impacts. Given the magnitude of the fill and the variety of options for sources and haul routes it is important that continuing review of this construction activity occur to ensure protection of air quality and to minimize impacts upon communities and the transportation system.




AR 013340

Mr. Dennis Ossenkop  
June 23, 1997  
Page 2

Thank you again for the opportunity to comment on this project and your willingness to discuss the 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

JRW:PC:kl

cc: Bonnie Thei, EPA  
Dennis McLerran, PSAPCA  
Barbara Hinkle, Port of Seattle  
Doug Brown, Ecology  
Paul Carr, Ecology  
Elizabeth Phinney, Ecology

AR 013341



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

JUN 23 1997

A-9

REC'D ANM-810  
 PLAN; PGM, & CAP BR  
 JUN 24 1997

ANM-810

Reply To  
 Attn Of: OAQ-107

Mr. Dennis Ossenkop  
 Federal Aviation Administration  
 Northwest Mountain Region  
 1601 Lind Ave, S.W.  
 Renton, Washington 98055-4056

**Re: Final Supplemental Environmental Impact Statement for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport**

Dear Mr. Ossenkop:

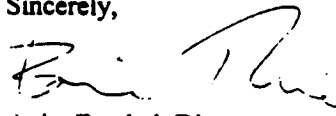
The Environmental Protection Agency has reviewed the subject environmental impact statement (FSEIS) in accordance with our responsibilities under Section 309 of the Clean Air Act (CAA) and the National Environmental Policy Act. The FSEIS assesses the impact of development of a third parallel runway as well as other airport improvements.

Over the past two years, we have worked with the Federal Aviation Administration (FAA), the Port of Seattle (POS), the Washington State Department of Ecology (Ecology), the Puget Sound Air Pollution Control Agency (PSAPCA) and local citizen groups to attempt to resolve issues of concern primarily regarding air pollution and noise impacts from airport development options. While the process has been time consuming, we believe the collective efforts of the agencies have resulted in meaningful disclosure of these environmental effects.

In our March 31, 1997, comments on the *Updated Draft Air Quality Conformity Determination*, we raised questions about the air quality analysis for the transportation conformity determination. Some of our questions related to the modeling of mobile source emission factors and annual aircraft operation emissions. We also expressed concern about the calculations of the construction emissions. Based on our review of the FSEIS, our concerns have now been adequately addressed and the *de minimis* thresholds have not been exceeded for general conformity under the CAA.

If you have any questions about our review, please contact me at (206) 553-2963, Claire Hong of my staff at (206)553-1813, or John Bregar at (206) 553-1984.

Sincerely,

  
 Anita Frankel, Director  
 Office of Air Quality

cc: Doug Brown, Ecology  
 Barbara Hinkle, POS  
 Dennis McLerran, PSAPCA

## **APPENDIX E**





# Washington State Senate

**Olympia Office:**  
405 John A. Cherberg Building  
PO Box 40482  
Olympia, WA 98504-0482

**Senator Julia Patterson**  
33rd Legislative District

(360) 786-7664  
Toll-Free Hotline: 1-800-562-6000  
TTY: 1-800-635-9993  
e-mail: patterso\_ju@leg.wa.gov

June 23, 1997

A-10

Mr. Dennis Ossenkop  
Federal Aviation Administration  
Northwest Mountain Region  
1601 Lind Avenue S.W.  
Renton, Washington 98055-4056

**REC'D ANM-610  
PLAN; PGM, & CAP BR**

**JUN 24 1997**

Re: Comments on the FAA's Final Air Quality Conformity Determination for the Proposed Expansion of Seattle-Tacoma International Airport

Dear Mr. Ossenkop:

On behalf of my constituents in the 33<sup>rd</sup> Legislative District, which includes a large portion of the affected area, I would like to express my concerns regarding the Final Air Quality Conformity Determination for the Proposed Expansion of Sea-Tac Airport. This mammoth project, if ever completed, will greatly impact the air quality in the communities surrounding the airport and the entire Puget Sound Region.

I am no expert in air quality, nor do I purport to be an expert. It is quite illogical to state, however, that moving millions of cubic yards of fill dirt by double dump trucks for five years and the construction equipment needed to place the fill dirt will not impact the air quality in and around the airport. It is extremely difficult to swallow that air quality will not be affected by the construction of the third runway and the terminal and landside construction that will take place at the same time.

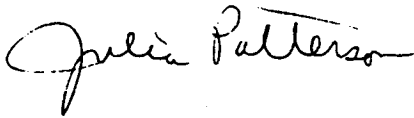
The expansion of Sea-Tac will no doubt result in more operations and more surface traffic to and from the airport. I find it hard to believe that the dramatic increase in operations at the Airport will not impact air quality. The FAA cannot sensibly assert that an increase in operations and surface traffic will result in a reduction of the amount of major air pollutants.

In a time when air quality standards are tightening, expansion at the Airport will make it

extremely difficult for the Puget Sound Region to maintain its maintenance status under the Clean Air Act that it worked so hard to obtain. By cutting off its analysis at 2010, even though operations are expected to increase beyond the 2010 projected level and surface traffic will increase accordingly, the FAA will force the Puget Sound Region into non-attainment and worsening air quality.

I sincerely hope it fulfills this duty and withholds approval of the Sea-Tac expansion project until assurances can be made that air quality will not worsen as a result of the expansion project. The FAA has a duty to protect the residents of the surrounding communities and the Puget Sound Region.

Sincerely,

A handwritten signature in cursive script that reads "Julia Patterson".

Julia Patterson  
State Senator  
33<sup>rd</sup> District

## **APPENDIX F**

**AR 013346**

1996 Master Plan Update Improvements - FEIS/FSEIS MITIGATION

Impacts	Mitigation
<p>The following nine public facilities or historic sites could experience significant increased noise impacts (i.e. an increase of 1.5 DNL or more) in the year 2010 in comparison to the Do-Nothing alternative:</p> <ul style="list-style-type: none"> <li>• Sea-Tac Occupational Skills Center;</li> <li>• Woodside Elementary School;</li> <li>• Sunnysdale Elementary;</li> <li>• Albert Paul House;</li> <li>• Homer Crosby House;</li> <li>• Sunny Terrace Elementary School;</li> <li>• Brunelle Residence;</li> <li>• Coil House; and</li> <li>• Bryan House.</li> </ul>	<p><u>Mitigating Significant Noise Impacts on Public Facilities and Historic Sites:</u> The Port will mitigate interior sound levels at these locations through the use of acoustical treatment (sound insulation) in a manner would allow their uses to be compatible, as defined by FAR Part 150 guidelines, with projected noise levels associated with the proposed Master Plan Update improvements. Because of their historic value, the five residences and Sunnysdale School (locally significant historic facilities) the Port will attempt to coordinate with the property owners to avoid significant alteration of the architectural style. In pursuing sound insulation of these structures, the Port's Noise Remedy Office will work with a historian to preserve such characteristics.</p>
<p><u>Residential Impacts of 65 DNL or greater:</u></p> <ul style="list-style-type: none"> <li>• Residences already within the existing Noise Remedy Program Boundary that were insulated prior to 1992 may need additional directional soundproofing to mitigate noise generated from a new flight path from the operation of the Third Runway</li> <li>• About 170 of these homes within 65 DNL would be exposed to 1.5 DNL or higher noise levels as a result of the proposed improvements and are not already subject to the Port's existing Noise Remedy Program</li> </ul> <p>In Port Resolution No. 3125 dated November 1992, the Port indicated its commitment to insulate homes through "Port staff is also directed to develop and implement a plan to insulate up to 5,000 eligible single family residences in the existing noise remedy program included on the waiting list as of December 31, 1993, before commencing construction of the proposed runway. The remaining eligible single family residences on the waiting list are to be insulated prior to operation of the proposed runway. In addition, the Port commits to complete insulation of all single-family residences that become eligible for insulation as a result of actions taken based on the site-specific EIS and are on the waiting list as of December 31, 1997, prior to commencing operations of said runway."</p>	<p><u>Provide Directional Soundproofing:</u> To mitigate noise caused by the proposed airport improvements, the Port will conduct audits and, if warranted, sound insulate these facilities.</p> <p><u>Sound insulation of residences affected by 1.5 DNL or greater within 65 DNL noise exposure:</u> The Port will develop an implementation strategy to sound insulate these 170 additional homes within 65 DNL as part of the Part 150 Noise Compatibility Plan study effort that will be initiated in 1997. The purpose of delegating finalization of the implementation approach for this action to the Part 150 is to ensure that consideration is given to the proposed Approach Transition Area acquisition and the relationship of that area to the existing Noise Remedy Program boundary, as well as the westerly expansion of the Noise Remedy Program to accommodate this added insulation.</p> <p>For the purpose of the Resolution, the FAA has determined the term "eligible" to be all single family properties located within the Noise Remedy Boundary, as established by the Port's 1985 Part 150 Study, with the exception of homes built after appropriate building codes were enacted. Therefore, the Port will insulate these single family residential areas regardless of the existing or future noise exposure.</p>

1996 Master Plan Update Improvements - FEIS/FSEIS MITIGATION

<p>The standard Runway Protection Zone (RPZ) dimensions do not always provide sufficient buffer to the satisfaction of nearby residents. FAA guidance indicates that concerns with low overflight can occur in an area "up to 1,250 feet laterally from the runway centerline, and extending 5,000 feet beyond each end of the primary surface."<sup>4</sup> Based on the configuration of current airport land, local streets, and residential development patterns, the approach and transitional area for the Third Runway could include the standard Runway Protection Zone and a rectangular extension of the RPZ outward another 2,500 feet (called the Approach Transition Area).</p> <p>Residences in the northern Approach Transitional Area include 82 single-family residential parcels, 2 apartment buildings (with 28 units), and 2 mobile home parks, with 98 units. The southern ATA includes, 71 single-family residential parcels and 6 apartment buildings (with 32 units).</p> <p>Specific airport activity levels, environmental impact, and airport context conditions were determined to not be reasonably foreseeable at this time for years beyond 2010. However, as the Third Runway would enable activity levels to be accommodated in excess of the capacity of the existing airfield, Appendix D of the FSEIS showed that noise impacts would be greater in year 2020</p>	<p><u>Acquisition in the Approach Transitional Area:</u> The Port will acquire all residential uses, and any vacant, residentially zoned properties, within this area both to the north and the south of the new runway end. Commercial and industrial land uses, which make up most of the eligible area to the south, will not be acquired.</p> <p>Input from the affected residents and local jurisdictions is necessary to design and initiate an acceptable relocation program. The Port will develop the appropriate implementation program for this action during the forthcoming Sea-Tac Airport FAR Part 150 Update, which the Port initiated during 1997. The implementation plan will include coordination with eligible resident concerning their desires to participate, and will establish relocation objectives, timing and funding priorities.</p> <p><u>Beyond 2010 Impacts:</u> Following commencement of operations on the new runway but prior to the year 2010, the FAA in cooperation with the Port will undertake a further supplemental evaluations of noise and land use impacts anticipated to occur through the year 2020. That supplemental evaluation may be conducted in accordance with FAR Part 150 guidelines. Following completion of that evaluation, if additional significant adverse noise impacts are found, the Port will be required to adopt further noise and land use mitigation measures designed to minimize any significant adverse effects found in that evaluation. This conditional approval will be enforced through a special condition included in future Federal airport grants to the Port.</p>
<p>Existing and future noise impacts were predicted reflecting the existing noise abatement and land use compatibility program.</p>	<p><u>Continue Existing Noise Program:</u> The Port will continue to implement the existing noise abatement program:</p> <ul style="list-style-type: none"> <li>• Noise Budget</li> <li>• Nighttime Limitations Program</li> <li>• Ground Noise</li> <li>• Flight Corridorization</li> <li>• Flight Track and Noise Monitoring</li> </ul>
<p>The preferred alternative would displace up to 391 single family, 260 condos/apartments, and 105 businesses.</p>	<p><u>Acquisition Compensation:</u> The Port will comply with the provisions of the Uniform Act concerning acquisition required for the Master Plan Update improvements.</p> <p>Of the 105 businesses identified by the FEIS, 88 are located in the Runway Protection Zone (RPZ). While the FAA prefers airport sponsors to have control the land in the RPZ, exceptions to property ownership can occur as long as the use of the land does not represent a hazard to aircraft operation. The Port has surveyed these property</p>

<sup>4</sup> FAA Memorandum, Action: Land acquisition — eligible Runway Protection, Object Free Area and Approach and Transitional Zones, April 30, 1991

1996 Master Plan Update Improvements - FEIS/FSEIS MITIGATION

	<p>owners and their use and will continue to coordinate with the FAA concerning the need for acquisition versus the purchase of easements to ensure the appropriate land use control is provided. The remaining 17 businesses are identified to the west of the existing airfield. The Port will examine the possibility of retaining these businesses if their location does not conflict with the development of the Master Plan Update improvements.</p>
<p>The air conformity analysis showed that the Master Plan Update improvements will not exceed the de-minimis levels established by the Clean Air Act conformity rules. [40 CFR 93.153(b)(2)] This conformance was based on reasonably foreseeable construction emissions.</p>	<p><u>Air Quality:</u></p> <ul style="list-style-type: none"> <li>• To ensure that construction emissions do not exceed the air conformity de-minimis levels, the Port will ensure that annual construction-related truck haul traffic does not exceed 280,700 round trips by Heavy Duty Diesel Vehicles during the peak construction year.</li> <li>• To minimize construction related particulate emissions, the Port will implement construction Best Management Practices (BMPs) as noted in Table 5-4-8 in the Final Supplemental EIS.</li> </ul>
<p>The proposed improvements will result in a significant amount of construction activity that has the potential to create adverse construction impacts, ranging from erosion and sediment, air pollution, noise, hazardous material spills, surface traffic congestion, etc.</p>	<p><u>Construction Erosion and Sedimentation Control Plan.</u> Prepare a construction erosion and sedimentation control plan for the construction of the new runway. The plan shall require use of Best Management Practices (BMPs) including but not limited to the following:</p> <ul style="list-style-type: none"> <li>• Erosion control measures such as use of mulching, silt fencing, sediment basins, and check dams that are properly applied, installed, and maintained pursuant to agreements with contractors.</li> <li>• Spill containment areas to capture and contain spills at construction sites and prevent their entry into surface or ground waters. Install proper temporary fuel storage areas and maintenance areas to reduce the potential for spills and contamination.</li> <li>• Phasing of construction activities to minimize the amount of area that is disturbed and exposed at any one time during wet weather conditions.</li> <li>• Where feasible, use of temporary and permanent terraces for fillslopes and cutslopes to reduce sheet and rill erosion and reduce transport of eroded materials from the construction site.</li> <li>• Install gravel and wheel wash facilities on construction equipment access roads or encourage covering of loads to minimize sediment transport onto nearby roads.</li> </ul>

Seattle-Tacoma International Airport

1996 Master Plan Update Improvements - FEIS/FSEIS MITIGATION

<p>The proposed improvements are expected to increase the quantity of impervious surface at the Airport, and possibly increase stormwater runoff</p>	<p><u>Stormwater Management Plan.</u> Prepare a stormwater management plan for the new runway that includes the following:</p> <ul style="list-style-type: none"> <li>• Detention criteria should be based upon Department of Ecology standards limiting 2-year peak flow rates from the developed portions of the site to 50% of the existing 2-year rate, limiting the developed 10-year rate to the existing 10-year rate, and limiting the developed 100-year flow rate to the existing 100-year rate.</li> <li>• Design stormwater facility outlets to reduce channel scouring, sedimentation and erosion, and improve water quality. Where possible, flow dispersion and outlets compatible with stream mitigation will be incorporated into engineering designs.</li> <li>• Maintain existing and proposed new stormwater facilities. Stormwater management facilities will be maintained according to procedures specified in the operations manuals of the facilities.</li> </ul> <p><u>NPDES Permit Requirements.</u> Comply with the requirements of the National Pollution Discharge Elimination System permit for the airport dated June 30, 1994, as may be revised from time to time.</p>																				
<p>Development of the North Employee Parking Lot will be completed in a wellhead protection area.</p>	<p><u>Ground Water.</u> Because of concerns with possible ground water/aquifer contamination, the Port has entered into an agreement with the City of Seattle Public Utilities. This agreement is incorporated by reference.</p>																				
<p>The proposed Master Plan Update improvements will affect the following quantity of wetlands:</p> <table border="1"> <thead> <tr> <th><u>Project Element</u></th> <th><u>Acres</u></th> </tr> </thead> <tbody> <tr> <td>Runway impacts</td> <td></td> </tr> <tr> <td>    Embankment</td> <td>5.48</td> </tr> <tr> <td>    Borrow Source impacts</td> <td>1.92</td> </tr> <tr> <td>Runway Safety Areas 16L/R</td> <td>2.34</td> </tr> <tr> <td>Runway 34R Extension</td> <td>0.00</td> </tr> <tr> <td>Terminal/Landside</td> <td></td> </tr> <tr> <td>    N. Employee Parking lot</td> <td>0.81</td> </tr> <tr> <td>    Development in SASA</td> <td>1.70</td> </tr> <tr> <td>    Total</td> <td>12.23</td> </tr> </tbody> </table>	<u>Project Element</u>	<u>Acres</u>	Runway impacts		Embankment	5.48	Borrow Source impacts	1.92	Runway Safety Areas 16L/R	2.34	Runway 34R Extension	0.00	Terminal/Landside		N. Employee Parking lot	0.81	Development in SASA	1.70	Total	12.23	<p><u>Wetland Mitigation:</u> In December 1996, the Port submitted an application to the Army Corps of Engineers for a permit to fill wetlands at Sea-Tac Airport associated with the Master Plan Update improvements in compliance with the Clean Water Act, Section 404.</p> <p>To mitigate for the unavoidable impacts to wetlands, the Port will create new wetlands in Auburn, Washington in accordance with a final approved 404 permit.</p>
<u>Project Element</u>	<u>Acres</u>																				
Runway impacts																					
Embankment	5.48																				
Borrow Source impacts	1.92																				
Runway Safety Areas 16L/R	2.34																				
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Terminal/Landside																					
N. Employee Parking lot	0.81																				
Development in SASA	1.70																				
Total	12.23																				
<p>The proposed Master Plan Update improvements will result in the relocation of about 3,700 feet of Miller Creek and its tributaries, and about 2,200 feet of Des Moines Creek.</p>	<p><u>Creek Relocation:</u> In relocating Miller and Des Moines Creek, the Port will provide compensatory mitigation, including an equivalent or greater amount of floodplain storage.</p>																				

1996 Master Plan Update Improvements - FEIS/FSEIS MITIGATION

<p>Public services and utilities would require minor changes based on the residences, businesses, and facilities displaced by development. Major utilities that would be relocated or protected in-place are the Southwest Suburban Sewer District, Miller Creek Interceptor, Seattle Water Department trunk line, Washington Energy Services (formerly Puget Power) third electrical service metering point, and US West trunk lines entering at S. 176th Street.</p>	<p><u>Public Services and Utilities:</u> The Port of Seattle will work with the service providers to minimize disruption during construction.</p>
<p>The FEIS identifies two seismic hazard areas on the site of the new runway, referred to as "relatively small areas of loose shallow sediment".</p>	<p><u>Earth Stabilization:</u> The Port will implement the following:</p> <ul style="list-style-type: none"><li>• The Port will remove the sediment and replace it with compacted fill, or use other appropriate engineering approaches to stabilizing these areas.</li><li>• Prepare a landscaping plan for the new runway area, including plans for seeding and planting of vegetation to stabilize areas of fill that will not be covered by impervious surface.</li></ul>



## **APPENDIX G**

**AR 013352**



U.S. Department  
of Transportation  
Federal Aviation  
Administration

# Memorandum

Subject: **ACTION:** Seattle-Tacoma International Airport  
Benefit-Cost Analysis

Date: JUL 3 1997

From: Manager, Systems and Policy Analysis Division,  
APO-200

Reply to  
Att. of: GCamaroli: x77550

To: Manager, Airports Financial Assistance Division, APP-500

We have reviewed the Port of Seattle's draft application for an Airport Improvement Program Letter of Intent designation from the Federal Aviation Administration for the Third Runway Project at Seattle-Tacoma (Sea-Tac) International Airport (May 21, 1997). We find the proposed project to be cost-beneficial, based on the Port's projections of life-cycle costs and delay reductions and FAA-APO allowances for other benefit parameters. A summary baseline worksheet of our analysis is attached.

For the purpose of the benefit-cost analysis, the only other alternative considered was a course of no action. According to Sea-Tac's application, extensive reviews of various approaches to reducing delay were conducted over the course of seven years, including regional airport capacity planning, evaluation of supplemental airport sites, use of demand management techniques, and construction of the third runway. All alternatives were dismissed in the early stages of the evaluation, leaving construction of the third runway as the only viable option. The preferred location is a runway west of Runway 16R-34L, with a 2,500-foot separation from Runway 16L-34R, allowing for two dependent arrival streams. Other location alternatives were a parallel runway west of Runway 16L-34R with a 1,500-foot separation, or with a 3,300-foot separation (with or without a Precision Runway Monitor). The first option was discarded because the delay savings were not sufficient due to the proximity of the two runways. The second option was discarded because of the excessive costs of land acquisition and noise mitigation objectives.

AR 013353

We appreciate having had the opportunity to review the proposed project. If you have any questions, please contact Mr. Giovanni Camaroli of my staff at 267-7550.

*Ward L. Keech*

Ward L. Keech

Attachment

**SEATTLE-TACOMA INTERNATIONAL AIRPORT**

File: SEATAC2.XLS

Project: Construction of Third Runway (RWY 16X/34X)

Recommended?	Yes
B/C ratio	5.53
Time Frame	Immediate
Base Year	1997
Discount Rate	7.00%
Project Cost	\$587,400,000
Annual Maint. Cost	\$11,748,000
AC Operating Cost/	\$1,804
Value of Time/Hr	\$28.18
Passengers Per AC	58

Assumption: Escalation Pro-Rated

	Operations	Delay Hrs	Delay Hr/Added Op
Less than Base	0	0	0.060289668
Base Operations	345,000	17350	0.92215
Future 1	425,000	91122	2.21568
Future 2	525,000	312690	2.21568

**BENEFIT STREAM**

Year	Total Ops	Red. Delay Hrs.	Operating Savings	Passenger Savings	Total Savings
1996			\$0	\$0	\$0
1997	388,500		\$0	\$0	\$0
1998	394,000		\$0	\$0	\$0
1999	401,500		\$0	\$0	\$0
2000	408,000		\$0	\$0	\$0
2001	416,200		\$0	\$0	\$0
2002	423,400		\$0	\$0	\$0
2003	430,600		\$0	\$0	\$0
2004	437,800		\$0	\$0	\$0
2005	445,000	135,438	\$217,211,615	\$221,117,726	\$438,329,342
2006	452,200	148,267	\$237,821,969	\$242,098,706	\$479,920,666
2007	458,600	161,137	\$258,432,303	\$263,079,686	\$521,511,989
2008	462,400	173,968	\$279,042,647	\$284,060,664	\$563,103,311
2009	468,200	186,839	\$299,652,991	\$305,041,644	\$604,694,635
2010	474,000	199,690	\$320,263,335	\$326,022,623	\$646,285,958
2011	479,800	212,541	\$340,873,679	\$347,003,602	\$687,877,281
2012	485,600	225,392	\$361,484,023	\$367,984,581	\$729,468,606
2013	491,400	238,243	\$382,094,367	\$388,965,561	\$771,059,928
2014	497,200	251,094	\$402,704,711	\$409,946,540	\$812,651,251
2015	503,000	263,945	\$423,315,055	\$430,927,519	\$854,242,574

Total Benefits			\$3,822,896,687	\$3,586,248,851	\$7,109,145,539
Discounted Total Benefits			\$1,337,424,609	\$1,361,475,482	\$2,698,900,091

**PROJECT COSTS**

	Investment	Maintenance	Total Cost
1996	\$2,600,000		\$2,600,000
1997	\$25,000,000		\$25,000,000
1998	\$70,700,000		\$70,700,000
1999	\$100,600,000		\$100,600,000
2000	\$119,600,000		\$119,600,000
2001	\$96,300,000		\$96,300,000
2002	\$74,300,000		\$74,300,000
2003	\$61,000,000		\$61,000,000
2004	\$34,300,000		\$34,300,000
2005		\$11,748,000	\$11,748,000
2006		\$11,748,000	\$11,748,000
2007		\$11,748,000	\$11,748,000
2008		\$11,748,000	\$11,748,000
2009		\$11,748,000	\$11,748,000
2010		\$11,748,000	\$11,748,000
2011		\$11,748,000	\$11,748,000
2012		\$11,748,000	\$11,748,000
2013		\$11,748,000	\$11,748,000
2014		\$11,748,000	\$11,748,000
2015		\$11,748,000	\$11,748,000
Total Project Cost	\$587,400,000	\$129,228,000	\$716,628,000
Discounted Total Project Cost:			\$488,009,597

**F**

**AR 013356**

(Cite as: 165 F.3d 35, 1998 WL 833628 (9th Cir.))

NOTICE: THIS IS AN UNPUBLISHED  
OPINION.

(The Court's decision is referenced in a "Table of Decisions Without Reported Opinions" appearing in the Federal Reporter. Use FI CTA9 Rule 36-3 for rules regarding the citation of unpublished opinions.)

United States Court of Appeals,  
Ninth Circuit.

**CITY OF NORMANDY PARK; City of Des Moines; City of Burien; City of Federal Way; City of Tukwila; Highline School District, No. 401, individually and collectively as the Airport Communities Coalition; Petitioners,**

v.

**PORT OF SEATTLE, a Washington municipal corporation, Intervenor-Respondent,**

v.

**FEDERAL AVIATION ADMINISTRATION;  
U.S. Department of Transportation,  
Respondents.**

**No. 97-70953.**

Argued and Submitted Nov. 6, 1998.

Decided Nov. 24, 1998.

Petition to Review a Decision of the United States Department of Transportation Federal Aviation Administration.

Before CANBY and HAWKINS, Circuit Judges,  
and SILVER, [FN\*\*] District Judge.

FN\*\* Honorable Roslyn O. Silver, United States District Judge for the District of Arizona, sitting by designation.

#### MEMORANDUM [FN\*]

FN\* This disposition is not appropriate for publication and may not be cited to or by the courts of this circuit except as provided by Ninth Circuit Rule 36.3.

\*\*1 Petitioners ("the Cities") appeal the Federal Aviation Administration's decision granting final

approval of the Master Plan development project adopted by the Port of Seattle for the expansion of the Seattle-Tacoma International Airport ("Sea-Tac"). We affirm.

The Cities argue that the Administrator's decision improperly relied on a "no growth" demand model and a limited prediction forecast thereby failing to accurately assess the project's environmental impacts and necessary mitigation measures. Under the Airport and Airway Improvement Act ("AAIA"), 49 U.S.C. 47106(c)(1)(C), an Administrator may approve an airport development project that is found to have significant environmental effects "only after finding that ... every reasonable step has been taken to minimize the adverse effects." Here, the Administrator's lengthy decision indicates a careful review of the project's potential environmental impacts, a host of mitigation measures and the entire administrative record. Moreover, it was within the agency's discretion to select a testing method for determining airport demand. *See Seattle Comm. Council Federation v. Federal Aviation Admin.* 961 F.2d 829, 833-34 (9th Cir.1991). Because intervening circumstances called into question the 2020 model's accuracy, the Administrator was also entitled to rely on a prediction forecast to the year 2011. *See City of Los Angeles v. Federal Aviation Admin.* 138 F.3d 806, 808 (9th Cir.1998).

Next, the Cities argue that the Administrator's decision violates the AAIA, 47106(a)(1), which requires that "the project is consistent with plans ... of public agencies authorized by the State in which the airport is located to plan for the development of the area surrounding the airport." The Cities' argument is unavailing because the Administrator was allowed to rely on the approval of the Puget Sound Regional Council, the designated Metropolitan Planning Organization responsible for transportation planning in the region, to satisfy the consistency requirement. *See Suburban O'Hare Comm'n v. Dole*, 787 F.2d 186, 199 (7th Cir.1986). Moreover, the administrative record indicates that every effort was made to ensure consistency with planning efforts of local communities.

Finally, the Cities contend that the Sea-Tac project violates the Clean Air Act, 42 U.S.C. § 7506(c),

(Cite as: 165 F.3d 35, 1998 WL 833628, \*\*1 (9th Cir.))

that prohibits federal agencies from supporting "any activity which does not conform to [the State's] implementation plan." This contention also fails because the FAA conducted extensive environmental analyses, including a conformity analysis, and ultimately found that the air emissions levels would be "de minimis." 40 §F.R. 93.153(c)(1). Moreover, the United States Environmental Protection Agency, the State of Washington Department of Ecology, and the Puget

Sound Air Pollution Control Agency all agree with the FSEIS conclusion.

The FAA Administrator's decision was supported by substantial evidence.

**\*\*2 AFFIRMED.**

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