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ENVIRONMENTAL  
HEARINGS OFFICE

POLLUTION CONTROL HEARINGS BOARD  
FOR THE STATE OF WASHINGTON

AIRPORT COMMUNITIES  
COALITION,

Appellant,

v.

STATE OF WASHINGTON,  
DEPARTMENT OF ECOLOGY; and  
THE PORT OF SEATTLE,

Respondents.

No. 01-\_\_

NOTICE OF APPEAL

(Section 401 Certification No.  
1996-4-02325 and CZMA  
concurrency statement, issued August  
10, 2001, Related to Construction of a  
Third Runway and related projects at  
Seattle Tacoma International Airport)

**I. APPEALING PARTY**

The appealing party is:

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NOTICE OF APPEAL - 1

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10 Appellant Airport Communities Coalition (ACC) is an entity established by  
11 interlocal agreement and composed of the Cities of Burien, Des Moines, Federal Way,  
12 Normandy Park, and Tukwila, and the Highline School District, with a combined  
13 population of over 150,000 citizens. ACC was formed for the purpose of, *inter alia*,  
14 participating in the governmental review process related to the Port of Seattle's  
15 proposed third runway and related Master Plan developments ("Third Runway  
16 Project") at Seattle-Tacoma International Airport ("Sea-Tac Airport" or STIA"). The  
17 ACC municipalities and school district would be particularly adversely affected by  
18 construction of the Third Runway Project because they are the communities closest to  
19 Sea-Tac Airport (excluding the City of SeaTac itself, which receives millions of dollars  
20 a year from the Port and supports the Third Runway Project).

23 The ACC municipalities have particular stewardship responsibilities per state  
24 law and their municipal codes and comprehensive plans for the streams and

1 watersheds within their boundaries, including Des Moines Creek, Miller Creek,  
2 Walker Creek, and Gilliam Creek. ACC has been actively engaged (to the extent that  
3 true opportunities have been provided) in the Washington Department of Ecology's  
4 review of the Third Runway Project. For example, upwards of ten independent  
5 scientists and aviation technology experts commissioned by ACC have submitted  
6 numerous comments to the Department of Ecology concerning the lack of necessary  
7 information and substantive scientific flaws in the Port of Seattle's application for a  
8 Clean Water Act Section 401 certification and Coastal Zone Management Act  
9 concurrency for the Third Runway Project. ACC and its members have a vital interest  
10 in ensuring that the Port's proposed project complies with the requirements of the  
11 Clean Water Act, the Coastal Zone Management Act and state water quality laws.  
12  
13

## 14 **II. ADDITIONAL PARTIES**

15 In addition to the appealing party, the parties to this appeal are the Washington  
16 Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600, which issued the  
17 decisions for which review is sought, and the Port of Seattle, P.O. Box 68727, Seattle,  
18 WA 98168, the applicant.  
19

## 20 **III. ORDER OR DECISION APPEALED FROM**

21 Appellant appeals from the Washington Department of Ecology's August 10,  
22 2001, issuance of Clean Water Act Section 401 Certification No. 1996-4-02325 and the  
23 accompanying Coastal Zone Management Act Section 307(c)(3) concurrence statement  
24

1 to the Port of Seattle. These decisions find that the Port's Third Runway Project will  
2 comply with state and federal water quality standards and coastal zone requirements.  
3 A copy of the concurrence statement and certification is Attachment 1 to this Notice  
4 of Appeal and will be referred to as the "Section 401 Certification." Also included in  
5 Attachment 1 is a copy of the Port's application for the Section 401 Certification.  
6

7 The Third Runway Project, from concept through mitigation, involves design,  
8 engineering, and construction activities at an unprecedented scale and with the  
9 potential for unprecedented impacts on the water quality of the nearby streams and  
10 wetlands. The Port proposes to spend over one billion dollars to fill a canyon on the  
11 western edge of the airport with 20 million cubic yards of fill (retained in part by a  
12 1,500-foot-long, 15-story-high retaining wall) upon which it plans to construct an  
13 8,500-foot dependent runway. Tom Fitzsimmons, Director of the Department of  
14 Ecology, recognized the enormity of the Project in a press release issued with the  
15 Section 401 decision, when he stated that, "This is one of the largest public-works  
16 projects ever attempted in the state of Washington. The potential effects on water  
17 quality and the natural environment are enormous . . ."  
18

#### 19 IV. FACTS

##### 20 A. The Local Hydrology Will Be Impacted by the Third Runway Project.

21  
22 Section 401 certifications are addressed to the need for compliance by project  
23 proponents with state surface water quality standards. The section 401 certification  
24



1 process represents an opportunity and a requirement for the State of Washington, on  
2 behalf of its residents, to protect the significant water resources that surround Sea-Tac  
3 International Airport from further and future degradation. The aquatic resources at  
4 issue here involve four stream systems, including interrelated groundwater, wetland  
5 and other surface and subsurface complexes that one typically associates with  
6 western Washington hydrology.  
7

8 Four streams embrace and flow across the airport: Des Moines, Miller, Walker  
9 and Gilliam Creeks. The first three of these flow generally westward through the ACC  
10 communities of Burien, Des Moines and Normandy Park, and discharge into Puget  
11 Sound. Gilliam Creek flows northeasterly and discharges into the Green River. The  
12 streams are alive with fish. Coho and chum salmon spawn and rear in Miller Creek,  
13 Walker Creek, and Des Moines Creek. Chinook salmon, a federally listed threatened  
14 species, frequent the outfalls of Miller and Des Moines Creeks in Puget Sound during  
15 their out-migration. The streams support a diverse population of fish including  
16 cutthroat trout, steelhead, yellow perch, black crappie, pumpkinseed sunfish,  
17 largemouth bass, prickly sculpin and three-spine stickleback. Juvenile Chinook  
18 salmon have been found in the lower reaches of Gilliam Creek.  
19  
20

21 Des Moines, Miller and Walker Creeks are classified as Class AA waters under  
22 state water quality standards, a status that mandates protection from impacts that  
23 degrade or impair the streams' ability to support fish life, wildlife habitat, and  
24 recreational and aesthetic uses. WAC 173-201A-030(1)(b). Impacts to the quantity of  
25

1 water flowing in-stream, as well as chemical and physical water quality, are protected  
2 alike under state water quality standards.

3 The airport property (over 2,600 acres) is also surrounded by a complex system  
4 of ponds, lakes and wetlands. One hundred seventeen delineated wetlands totaling  
5 approximately 115 acres are associated with the Port's Master Plan Improvements and  
6 lie within the Miller and Des Moines Creek basins. The largest of these wetlands is  
7 over 35 acres. Class II wetlands abound. Heavily forested, scrub-shrub, emergent and  
8 open-water wetland classes are all found within the Project area. The wetlands  
9 within the Miller and Des Moines Creek watersheds are extremely important to the  
10 health and well-being of the creeks because of the wetlands' production of organic  
11 carbon and role in moderating nitrogen export to the creeks. Surrounding bodies of  
12 water include Lake Reba, Tub and Lora Lakes and the Tyee and Northwest Ponds.  
13 Like the streams, abundant fish life exists in the lakes and ponds. This system of  
14 ponds and wetlands provides habitat for passerine birds and small mammals,  
15 groundwater discharge and recharge for the watersheds, and nutrient sediment  
16 trapping for stream health.  
17  
18

19 The Des Moines and Miller Creek watersheds are also notable for their  
20 groundwater connections. The majority of the existing wetlands west of the airport  
21 are hydrologically maintained by shallow groundwater and seeps that emanate from a  
22 shallow groundwater aquifer that daylights along the western slope of the plateau that  
23 the Port proposes to fill.  
24

1 The affected waters, Des Moines, Miller, Walker and Gilliam Creeks, all flow  
2 through ACC member cities. The lakes are situated within the boundaries of the  
3 cities. The residents of the ACC cities including the students of the Highline School  
4 District use these streams and lakes daily for recreational and aesthetic purposes. For  
5 example, the Normandy Park community recreation center sits at the mouth of Miller  
6 Creek. This community beach parcel includes a Community Club building, tennis  
7 courts, swim club, baseball fields, boat launch and picnic areas on the beach and near  
8 the streams. Miller and Walker Creeks flow around and through the community  
9 center property providing a beautiful, natural setting for community activities.  
10

11 The communities' affection and deep-seated concern for these streams and  
12 lakes are very real. From an early age children are taught in the communities' schools  
13 about the surrounding streams and lakes through field trips to the streams and special  
14 stream restoration projects. Over the years, community groups have undertaken  
15 significant efforts to restore these salmon-bearing streams to levels of purity in which  
16 aquatic biota may thrive. Residents flock to the streams in October to see the annual  
17 return of the salmon. Many residents fish in the streams and lakes.  
18

19 The headwaters and associated wetlands of the streams also lie within the  
20 boundaries of ACC cities and provide low summer flow for salmon habitat in Walker  
21 and Miller Creeks. These headwaters and wetlands are in the construction impact  
22 area for the Third Runway Project and their drainage would be impacted by Third  
23 Runway fill if the project were ever built. The effect of the Third Runway Project on  
24

1 the quantity and quality of water in the streams, headwaters and wetlands is a matter  
2 of great concern to the downstream population within the ACC communities. The  
3 streams and lakes are valuable resources to the communities through which they  
4 flow.

5  
6 **B. The Port's Proposed Project Is of Immense Proportion.**

7 The Third Runway Project is immense. The Port proposes to construct an  
8 8,500-foot-long parallel runway by importing an additional 17 million cubic yards of  
9 fill to the already 3 million cubic yards it has imported onto the site over the past  
10 three years. In its press release announcing the 401 Certification, the Department of  
11 Ecology compares the embankment that would be created by this additional fill to "40  
12 football fields, each stacked 300 feet high with material." The Port estimates that  
13 transport of this amount of fill to the proposed third runway site will take five years at  
14 the projected rate of 66 dump trucks per hour for 16 hours a day. The Port also  
15 proposes to excavate over 7.9 million cubic yards of fill from on-site, open-pit strip  
16 mines or "borrow pits" to construct portions of the runway embankment. Underneath  
17 the 20 million cubic yards of fill, the Port proposes to construct an enormous rock  
18 drainfield to "capture" groundwater and transport it downslope in the hope of  
19 supporting the streams and wetlands below.

20  
21 In addition to the embankment itself, the Port plans to construct several  
22 retaining walls to support portions of the embankment. The largest of these structures  
23  
24

1 is a monolithic, mechanically stabilized earth (MSE) wall over 150 feet high and  
2 approaching a third of a mile in length. Dubbed the "Great Wall of SeaTac," the Port  
3 proposes to construct the MSE wall on soils subject to liquefaction during  
4 earthquakes.

5 Other major elements of the Project include new taxiways connecting the  
6 proposed third runway, a 600-foot extension of an existing runway, new Runway  
7 Safety Areas, a new air traffic control tower, development of a North Unit Terminal,  
8 and a new South Aviation Support Area (SASA) that will house airport support and  
9 maintenance facilities. In order to facilitate transport of fill and construction  
10 materials to the Third Runway Project site, the project involves significant alterations  
11 to the local road and highway infrastructure. Of note, the Port is now constructing a  
12 temporary interchange off of State Route 509 and plans to create another interchange  
13 off of State Route 518.

14  
15  
16  
17 **C. The Proposed Project Will Substantially Impact Water Quality.**

18 The proposed Project's potential impact on water quality and resources cannot  
19 be overstated. The Third Runway project would consume over 700 acres, create over  
20 300 acres of new impervious surfaces with associated stormwater runoff, fill all or  
21 portions of 50 wetlands totaling 18.37 acres and permanently impact an additional 12  
22 wetlands totaling 2.05 acres. The Port also proposes to fill and move 980 linear feet of  
23 Miller Creek itself, 1,290 linear feet of drainage channels in the Miller Creek basin,  
24

1 and 100 linear feet of drainage channels in the Des Moines Creek basin. In sum, the  
2 Third Runway Project, if built, will literally re-plumb the Miller, Des Moines and  
3 Walker Creeks watersheds.

4 The Section 401 Certification grants the Port permission to capture and detain,  
5 without an approved water right, approximately 390 acre-feet of stormwater in fifteen  
6 stormwater vaults and earthen-dam detention ponds to be later released and used  
7 during the dry summer months for low streamflow augmentation. Ecology describes  
8 the largest of the stormwater detention vaults as detaining 88 acre-feet of stormwater  
9 -- equal to nearly 30 Olympic-sized swimming pools. Several of the detention ponds  
10 will detain as much as 40 acre-feet of stormwater.

11 The Port's stormwater system is and will be a significant source of impacts  
12 associated with the Third Runway Project. The system is composed of the Industrial  
13 Waste System (IWS) and includes three lagoons for the storage of industrial  
14 wastewater prior to treatment in the treatment plant. Treated discharge flows into an  
15 outfall pipeline that ultimately discharges into Puget Sound via a marine outfall. In  
16 order to capture and treat greater quantities of industrial stormwater, the Port will re-  
17 construct, expand and re-line portions of STIA's Industrial Waste System. Because of  
18 significant leakage in the IWS pipelines and lagoons, this upgrade is expected to have  
19 an impact on the local hydrology.

20 In addition, the placement of 20 million cubic yards of embankment fill  
21 material will alter groundwater flow paths that feed and discharge water to the local  
22

1 streams. In an effort to prevent settling and erosion caused by subsurface flow, the  
2 embankment will be constructed on top of an underdrain that will capture and re-  
3 route groundwater flowing from beneath the existing airport to the foot of the  
4 embankment. The underdrain will function as a conduit to transport polluted  
5 groundwater to local streams.  
6

7 The Port's low streamflow analysis predicts that the surface and sub-surface  
8 hydrologic alterations associated with embankment and impervious surface  
9 construction will result in depletion of flow in Miller, Des Moines and Walker Creeks  
10 during low-flow times of year (i.e., July through October). According to the Port's  
11 modeling efforts, Des Moines Creek would be the hardest hit, with a low flow  
12 depletion equal to fully one-third of the stream's late summer flow.  
13

14 Flow depletion will impact the characteristic uses of these streams, including  
15 their aquatic habitat, recreational and aesthetic functions. Moreover, the creation of  
16 preferential flow paths for contaminated groundwater and the direct discharge of  
17 polluted stormwater will threaten the quality of receiving waters, i.e., the four streams  
18 surrounding the airport. Continuing violations of state water quality standards are  
19 expected.  
20

21 Notwithstanding its magnitude and impacts, Ecology's water quality permit  
22 review for the Third Runway Project has been typified by a persistent unwillingness  
23 on the part of the Port to provide complete and accurate technical information by  
24 which the impacts of the Project and "appropriate" mitigation could be determined.  
25

1 To be sure, the Port has taken care to fill the file cabinets at Ecology with many yards  
2 of reports and "data." However, these have consistently avoided providing concrete  
3 answers to key water-quality-related questions. Despite this stunning lack of basic  
4 data and analysis, Ecology ultimately succumbed to pressure to issue a Section 401  
5 certification based upon studies, reports, and plans that have yet to be completed and  
6 in many instances have not been initiated. In doing so, Ecology effectively discarded  
7 public participation in the 401 review. Independent experts commissioned by ACC to  
8 comment on Port submissions as part of the Ecology 401 review process could not  
9 critique reports and data which did not yet exist -- yet their future existence and  
10 validity were relied upon by Ecology as a basis for granting approval in the here and  
11 now.  
12

13  
14 How this Ecology decision came to be is a cautionary tale. It illustrates what  
15 can happen when an agency's mandate for stream, wetland, and water quality  
16 protection based on sound science collides with political pressures to just say yes.  
17 There are casualties (Ecology's longtime statewide Clean Water Act section 401  
18 coordinator, Tom Luster, was abruptly reassigned after two years on the Third  
19 Runway Project when he persisted in questioning the Port's submissions: a few  
20 months later he quit DOE entirely and moved to California where he now works for  
21 the California Coastal Commission). There are lapses in judgment (prior to issuing its  
22 certification, key Ecology officials worked assiduously with the Department's public  
23 relations expert on the wording of a press release and memo justifying approval, even  
24  
25



1 while neglecting to review key documents or insist on their completion by the Port  
2 before issuance of a decision). And, ultimately, there are losers, as Ecology offers a  
3 concept of reasonable assurance under the Clean Water Act that would leave local  
4 streams unprotected and undercut the public's right to clean water.  
5

6 **D. The Procedural and Permitting Background Demonstrates Ongoing Problems**  
7 **with the Port's Application.**

8 In December 1997, the Port of Seattle first applied for Clean Water Act  
9 approvals necessary to construct a dependent third runway at Seattle-Tacoma  
10 International Airport. Among the approvals sought were a Section 404 permit from  
11 the Corps of Engineers, required to fill wetlands at the project site, and a related  
12 Section 401 certification from the Department of Ecology certifying that the project  
13 would, with reasonable assurance, comply with state water quality standards.  
14

15 The Port's 1997 application was the first in a series of attempts to meet the  
16 requirements of state and federal water quality law. Ironically, Ecology issued a 401  
17 certification to the Port in July 1998, but the Port appealed that decision to the  
18 Pollution Control Hearings Board (PCHB No. 98-150), thereby becoming the agent of  
19 delay to the Project. The Port's 1998 appeal and the underlying Section 401  
20 certification were both withdrawn later that year when the Port discovered that it had  
21 substantially underestimated the number of wetlands that would be impacted by the  
22 Project.  
23  
24

1       The Port re-applied for its Section 404/401 approvals in September 1999. After  
2 a yearlong investigation, and facing denial of certification by Ecology, the Port  
3 withdrew the second application in late September 2000. Attachment 2 hereto is a  
4 copy of the Department of Ecology's draft denial letter that forced the Port to  
5 withdraw its second application. The same issues relied upon by Ecology in its  
6 September 2000 draft denial letter remain today even after another year of submittals  
7 by the Port and review by Ecology.  
8

9       The Port applied yet a third time for a Section 404 permit and Section 401  
10 certification in October 2000. See Attachment No. 3. (Corps of Engineers Public  
11 Notice dated December 27, 2000). Ecology issued the requested Section 401  
12 certificate on August 10, 2001, and that decision is the subject of this appeal. See  
13 Attachment No. 1.  
14

15       The Third Runway Project proposal has generated a series of studies and  
16 reports, many of which will be submitted as evidence at later phases of this  
17 proceeding. These include the Comprehensive Stormwater Management Plan  
18 (December 2000), Natural Resource Mitigation Plan (December, 2000), Wetland  
19 Functional Assessment and Impact Analysis (December, 2000), and Wetland  
20 Delineation Report (December, 2000). Each of these reports is a component of the  
21 Seattle-Tacoma International Airport Master Plan Update Improvements, the Port's  
22 "comprehensive plan" for the airport. Most of these reports were issued in new or  
23 revised form in December 2000, at the time public notice was sent on the Port's third  
24

1 application for Section 404/401 permits. The application and supporting materials  
2 engendered significant public comment, including from ACC and its experts.

3       However, several reports that are integral to the Section 401 decision were  
4 either not issued for public review or were issued in incomplete form. In particular,  
5 the Port's revised Low Streamflow Analysis and Flow Impact Offset Facility Proposal  
6 were not issued until July 23, 2001, and then only in draft form. Stormwater  
7 detention associated with the Port's low flow mitigation proposal is another new  
8 element of the project, and design details for the stormwater detention vaults have yet  
9 to be included in the Stormwater Management Plan. These late submittals deprived  
10 ACC, the public, and most importantly, the Department of Ecology of the ability to  
11 fully analyze the impacts of the Project as well as the feasibility of the mitigation  
12 proposals. In fact, review of the Section 401 decision reveals that there are at least  
13 two dozen reports and plans that have not been completed for the Project, but which  
14 Ecology has cited as integral elements of the Section 401 mitigation conditions.  
15

16       The Port's Third Runway Project is not written on a clean slate. STIA has been  
17 the subject of numerous permits, enforcement orders, and other administrative and  
18 executive activities for many years. STIA operates under an individual NPDES permit  
19 that authorizes discharge of significant stormwater quantities to local streams.  
20 Discharge monitoring reports establish that the Port routinely violates state water  
21 quality standards.  
22  
23  
24

1 The Port has recently obtained a major modification to its existing NPDES  
2 stormwater permit to govern stormwater discharges caused by Third Runway Project  
3 construction activities including the new interchange off of State Route 509. This  
4 highway construction has been undertaken for the express purpose of facilitating the  
5 Port's transport of fill materials to the third runway embankment site. The NPDES  
6 permit modification authorizes discharge into fish-bearing creeks and streams that  
7 cross the site of the proposed third runway. The modification was issued by the  
8 Department of Ecology on May 29, 2001, and is the subject of an appeal and stay  
9 request now pending before the Board in PCHB No. 01-090.  
10

11 The water quality associated with past and future discharges authorized by the  
12 Port's stormwater permit is integrally related to the question of whether Ecology's  
13 Section 401 certification is appropriately issued. In issuing the NPDES permit  
14 modification prior to Section 401 certification, Ecology has violated requirements  
15 regarding interrelated timing, content and conditions of the two processes.  
16

#### 17 **V. GROUNDS FOR APPEAL**

18 Notwithstanding the enormity of the Third Runway Project and the Port's  
19 continuing failure to provide data and analysis necessary to determine whether the  
20 standards for Clean Water Act Section 401 Certification and Coastal Zone  
21 Management Act (CZMA) consistency are met, Ecology ultimately succumbed to  
22 political pressure to issue these approvals. The resulting decision is irretrievably  
23 compromised as a basis for determining whether water quality standards will be met  
24

1 and is riddled with violations of the requirements and intent of the federal Clean  
2 Water Act, 33 U.S.C. § 1251, *et seq.*, the Coastal Zone Management Act, 16 U.S.C.  
3 §1451, *et seq.*, the Washington State Water Pollution Control Act, RCW Ch. 90.48, the  
4 State Environmental Policy Act, RCW Ch. 43.21C, the State Water Code, RCW Ch.  
5 90.03, and applicable and implementing regulations for each of these statutes. These  
6 violations include, *inter alia*, the following:  
7

8 **1) Lack of Reasonable Assurance.**

9 The Section 401 Certification violates the fundamental tenet that there must be  
10 reasonable assurance that the project will not violate state water quality standards in  
11 affected surface waters, pursuant to, *inter alia*, 33 U.S.C. § 1341; 40 CFR § 121.2; RCW  
12 90.48.080; and WAC Ch. 173-201A. *See Friends of the Earth, et al. v. Department of*  
13 *Ecology*, PCHB Nos. 87-63 and 87-64, Final Findings of Fact, Conclusions of Law and  
14 Order at 25-26 (1988).  
15

16 **2) The Section 401 Certification Relies on Incomplete Data and Analysis.**

17 The Port has failed in three years to complete key data, reports, and plans  
18 necessary for a determination that the project will not violate water quality standards.  
19 Ecology's decision, on its face, acknowledges the Port's continuing failure to produce  
20 the necessary information, but nevertheless grants approval based on incomplete  
21 reports and promises to complete work in the future.  
22  
23  
24  
25

1                   **a.      Technical Analysis, Design and Implementation Plans**

2                   The Section 401 Certification is not based on reasonable assurance that the  
3 Third Runway Project will comply with water quality standards because of its  
4 “reliance” upon grossly incomplete and unavailable data, designs, and reports.  
5 Ecology acknowledges this in many instances. The following documents are  
6 examples of Ecology’s acceptance of promises from the Port for information needed to  
7 make the Section 401 certification and CZMA consistency decisions:  
8

- 9                   • mitigation plan for impacts to wetlands in Miller Creek that have  
10                   been determined to be permanent, rather than temporary (Section  
11                   401 Certification, p. 9);
- 12                   • plan to prevent interception and discharge to streams of existing  
13                   contaminated groundwater by utility corridors and an associated  
14                   monitoring plan to assess contaminant transport (Section 401  
15                   Certification, pp. 18-19);
- 16                   • Low Streamflow Analysis and Summer Low Flow Impact Offset  
17                   Facility Proposal (Section 401 Certification, p. 21, *et seq.*);
- 18                   • plan to offset reduced groundwater recharge to local streams in light  
19                   of doubts that groundwater will flow through the project’s massive  
20                   embankment as modeled by the Port (Section 401 Certification, p.  
21                   22);
- 22                   • plan demonstrating that low flow augmentation releases are not lost  
23                   to percolation (Section 401 Certification, p. 22);
- 24                   • plan for pilot program to determine whether the Port’s (incomplete)  
25                   low flow augmentation plan will even work (Section 401  
Certification, pp. 22, 23);

- plan to identify impacts to wetlands from the low flow augmentation plan (Section 401 Certification, p. 22);
- plan to determine the water quality treatment requirements for the low flow augmentation plan (Section 401 Certification, p. 22);
- “water effects ratio study” to determine the limits and monitoring requirements for the Port’s NPDES permit (Section 401 Certification, p. 26);
- final design for stormwater treatment and flow control facilities, with particular review of groundwater interception factors (Section 401 Certification, p. 26);
- stormwater facility retrofitting requirements to control the Port’s existing discharges which violate water quality standards (Section 401 Certification, p. 25);
- stormwater facilities operation and maintenance plan that includes methods to prevent “overtopping” of stormwater facilities during storm events (Section 401 Certification, pp. 26-27);
- stormwater pollution prevention plans (Section 401 Certification, p. 27); and
- spill prevention and containment plan (Section 401 Certification, p. 29).

The studies and plans identified above are addressed to essential components of the Third Runway Project. Without them, it is pure speculation, not reasonable

1 assurance, to say that the project will not result in violation of quality standards. 33  
2 U.S.C. § 1341; 40 CFR § 121.2; RCW Ch. 90.48; WAC 173-201A.

3 **b. Monitoring Plans**

4 In addition to its speculative reliance on the Port's promises to provide  
5 essential data and information necessary for Section 401 certification, Ecology's  
6 decision substitutes future monitoring for current assurance that water quality  
7 standards will not be violated. In so doing, the decision implicitly acknowledges that  
8 such assurance does not now exist, and instead finds that post-approval monitoring to  
9 determine the extent of harm and to provide a basis for future discussions of  
10 mitigation is equivalent to current reasonable assurance. Worse yet, even assuming  
11 this design/build/assess approach were legal and appropriate for a project of this scale,  
12 complexity, and proximity to fragile streams and wetlands, Ecology's decision leaves  
13 inchoate the nature of the monitoring and the Port's obligations in the face of its  
14 results.  
15

16  
17 The result is a project approved based on speculative, incomplete, and  
18 infeasible monitoring fig leaves, such as those listed below, which do little to cure the  
19 project's obvious flaws and whose main utility, if any, will be to provide some after-  
20 the-fact record of the harm to water quality standards caused by the project.  
21

- 22 • monitoring to attempt to determine after-the-fact effectiveness of  
23 wetland mitigation (Section 401 Certification, p. 12, *et seq.*);  
24



- monitoring to detect impacts of contaminated leachate from embankment fill on ground and surface water resources (Section 401 Certification, p. 18);
- monitoring of contaminated groundwater transport via subsurface utility lines to determine whether as-yet-undeveloped BMPs will prevent future contamination (Section 401 Certification, p. 18-19);
- monitoring to determine whether embankment fill meets assumptions regarding groundwater infiltration and flow-through rates (Section 401 Certification, p. 22);
- a “comprehensive protocol” to determine whether the low flow mitigation plan will work, including elaborate in-stream biological monitoring (Section 401 Certification, p. 24);
- future review to determine the seasonality of low flow impacts (Section 401 Certification, p. 24);
- monitoring to determine whether additional stormwater BMPs are needed (Section 401 Certification, pp. 26 and 28); and
- a plan to assess stormwater and construction “de-watering” discharges from construction projects (Section 401 Certification, p. 29).

A Section 401 certification, especially for what is one of largest single public works projects ever built in Washington, cannot be based on a design/build/assess/fix approach. The project is too big, the impacts too gross, the ability to correct mistakes too limited once 20 million cubic yards of fill have been dumped.

1 Monitoring cannot serve as a basis for reasonable assurance of compliance with  
2 water quality standards. Even if monitoring were appropriate, the proposals here fall  
3 far short. Ecology's failure to require development and review of these monitoring  
4 plans prior to issuance of the Section 401 Certification means that there is very little  
5 assurance, much less reasonable assurance, that state water quality standards will not  
6 be violated. 33 U.S.C. § 1341; 40 CFR § 121.2.

8 **3) The Third Runway Project Will Diminish Flows in Local Streams,  
9 Violating Water Quality Standards.**

10 The Section 401 Certification does not rest on reasonable assurance that the  
11 low flow impacts of the proposed project will be permanently and adequately  
12 compensated, nor that water quality standards will be met. The Section 401  
13 Certification therefore violates, *inter alia*, 33 U.S.C. § 1341; 40 CFR § 121.2; RCW Ch.  
14 43.21C; RCW 90.03.010; RCW 90.03.250; and RCW 90.48.080.

15 A central concern arising from the Third Runway Project is its impact on local  
16 streams and wetlands. It has been understood since the Project was first proposed  
17 years ago that construction of the embankment, filling of wetlands and headwaters,  
18 and creation of hundreds of acres of new impervious surfaces would alter streamflow  
19 in Des Moines and Miller Creeks. In the course of seeking agency approval, the Port  
20 downplayed the extent of diminution in streamflow, even as it proved unable to offer  
21 an approvable basis for mitigating the small diminution that it acknowledged would  
22 occur. It was not until the Port's last-minute submittal (July 23, 2001) of a summary  
23  
24

1 of a new draft low flow analysis and low flow mitigation proposal that the Port  
2 admitted that the Project if approved would deplete up to 35% of the summertime  
3 streamflow in Des Moines Creek, and that yet a third stream, Walker Creek, would  
4 also be affected.

5 Des Moines, Miller and Walker Creeks are classified as Class AA waters and are  
6 known to host a variety of aquatic species, including cutthroat trout, coho and chum,  
7 as well as a diversity of warm water species such as yellow perch, large mouth bass  
8 and pumpkinseed sunfish. The disruptions to stream hydrology will occur during  
9 the summer and early autumn period, when salmonid and recreational use of the  
10 streams is at its highest.

11 Ecology has chosen to accept the Port's belated and still incomplete low flow  
12 analysis as a basis for determining that water quality standards can be met. This  
13 constitutes speculative approval that will require for justification post hoc submission  
14 of technical analyses and plans. This is borne out by the text of the low flow section  
15 of the 401 decision, which resembles a review of a draft document rather than a  
16 rigorous imposition of science-based conditions to assure that key elements of water  
17 quality compliance are met.

18 The Port's low flow analysis, which has yet to be released in final form, still  
19 rests on inaccurate and incomplete data and assumptions. For example, questions  
20 remain regarding lack of calibration data for flow modeling, use of incorrect model  
21 calibration points, and poor correlation to recorded data; failure to properly model the

1 impacts of airport activities and projects that will reduce natural stream flow,  
2 including upgrades to the Industrial Waste System (lagoon linings and leak reduction  
3 efforts) and development of a business park at the site of proposed borrow pits  
4 (eliminating forested areas in the Des Moines Creek basin); and inconsistent  
5 accounting for runoff (e.g., assertions that runoff will infiltrate to groundwater and  
6 minimize streamflow impacts versus proposals to capture the same runoff for reserve  
7 storage and release to the streams).

8  
9 The Section 401 Certification's adoption of the Port's Draft Low Flow Impact  
10 Offset Plan (Parametrix, July 2001) is similarly flawed. Rather than rely on proven  
11 methods, it proposes to capture stormwater running off the airport property (including  
12 from contaminated areas of present or former industrial and aviation use), detain it in  
13 dead storage in large vaults for several months between December and July, and then  
14 meter it into the three depleted streams during the late-summer low-flow period.  
15 Because the proposal is incomplete, it is impossible to fully assess it. However, from  
16 what has been disclosed to date (and was relied upon by Ecology in its decision), it  
17 suffers from critical environmental and legal flaws, and therefore provides no basis for  
18 Section 401 certification. Although it was referred to in a submittal letter as a "final"  
19 proposal, it lacks important information about the design and operation of the  
20 mitigation proposal, information that is necessary to determine whether the proposal  
21 will actually work. It is also inconsistent with the Port's Stormwater Management  
22  
23  
24

1 Plan, which identifies different stormwater reserve vaults from those described in the  
2 mitigation proposal.

3 Feasibility of design is not yet established for the low flow mitigation plan.  
4 Problems include, but are not limited to, water quality treatment, management of  
5 accumulated contaminated sediments in the reserve vaults, aeration, loss of water in  
6 transit between stormwater vaults and streams, and mechanisms for metered release  
7 (e.g., blocked nozzles).  
8

9 Environmentally, there is no reasonable assurance that water quality standards  
10 can and will be met while injecting the contents of stormwater vault dead storage into  
11 Class AA streams. This is particularly so in light of the Port's documented history of  
12 violating water quality criteria in area streams, relating to, *inter alia*, fecal coliforms,  
13 total suspended solids, sediments (turbidity), biological oxygen demand,  
14 petrochemicals, zinc, copper, glycols, and airplane wastewater. Moreover, anoxic  
15 conditions in the reserve vaults may result in greater bioavailability and toxicity of  
16 metals once stormwater is released to streams. Ecology's approach of approve now  
17 and sort out later the viability of the use of airport stormwater is inconsistent with the  
18 requirements for Section 401 certification and CZMA consistency.  
19  
20

21 While the Port's draft plan does recognize that stormwater must be treated  
22 before release to local streams, it does not address the full spectrum of pollutants  
23 known to be present in the stormwater nor does it explain how they will be treated to  
24 bring the stormwater up to water quality standards. Implicitly acknowledging that  
25

1 this hit and miss approach would result in harm to the streams, the Section 401  
2 decision calls for an as-yet-undeveloped monitoring plan which would use a long-  
3 term assessment method, the Benthic Index of Biotic Integrity or BIBI. That method is  
4 inappropriate for this type of project; among other flaws, it will not detect early  
5 problems with the use of stormwater mitigation and, lacking baseline data on aquatic  
6 biota in the affected streams, will provide meaningless results. Under Ecology's  
7 decision, the streams will become laboratories for a Port experiment in the use of  
8 stormwater, with the after-the-fact indicia of harm designed to preclude early  
9 detection.  
10

11         The legal flaw in the Port's stormwater proposal is as fundamental as its  
12 environmental shortcomings. Finding a source of water to augment low stream flows  
13 has been particularly problematic for the Port. The failure to provide a secure source  
14 of low flow augmentation water was a major factor in the last-minute withdrawal of  
15 the Port's Section 401 application in September 2000. Over the years, several  
16 proposals have been examined and abandoned, including transfer of local  
17 groundwater rights and purchase of water from Seattle Public Utilities. In each case,  
18 the proposed method was ultimately rejected due to issues relating to water rights  
19 transfers (i.e., questions related to relinquishment and quantification of claims). In  
20 the case of the Port's latest (captured stormwater) proposal, the Port and Ecology have  
21 effectively decided to ignore the water rights issues that sank prior proposals.  
22  
23  
24

1 Thus, although the Port is required by the Section 401 decision to capture and  
2 detain stormwater in specially designated vaults between December and July, and  
3 then release it during low flow periods to augment stream flow, Ecology has not  
4 required that the Port obtain a water right to do so. Because the use of water to  
5 augment streamflow is a beneficial use, Ecology should have required the Port to  
6 obtain such a right as a prerequisite to Section 401 certification. In the absence of  
7 such a right, it is legally impossible to find reasonable assurance in the Port's plan for  
8 use of stormwater.  
9

10 Finally, because water right decisions are subject to the SEPA review process,  
11 Ecology's decision not to require a water right means that the Project does not comply  
12 with the requirements of SEPA. This is particularly important in the context of  
13 analyzing cumulative impacts to local streams, an analysis that has not been done.  
14 No environmental review of the low flow mitigation proposal has been conducted.  
15

16 **4) Stormwater Peak Flow Releases Will Violate Water Quality Standards.**

17 The Section 401 Certification is not based on reasonable assurance that the  
18 Third Runway Project will not violate state water quality standards in affected surface  
19 waters, because it allows discharge of polluted stormwater during peak flow periods.  
20 33 U.S.C. § 1341; 40 CFR § 121.2; RCW 90.48.080; WAC Ch. 173-201A.  
21

22 The Port's stormwater discharges already violate water quality standards at  
23 Sea-Tac. These violations are not limited to the late summer low-flow period. The  
24 Port's Discharge Monitoring Reports and whole effluent toxicity (WET) testing  
25

1 indicate that significant quantities and varieties of contaminants are transported  
2 through the Port's local stormwater system and discharged to Des Moines, Miller and  
3 Walker Creeks during peak flow periods, to the detriment of aquatic biota. The new  
4 and expanded stormwater discharges anticipated from the Third Runway Project will  
5 be similar to those currently discharged by the Port. Therefore, the (in)effectiveness  
6 of existing BMPs and resulting water quality exceedances are likely to be similar as  
7 well.  
8

9         The Section 401 Certification adopts the Port's Comprehensive Stormwater  
10 Management Plan (CSMP), submitted in piecemeal fashion to Ecology up until the  
11 time of issuance of the 401 decision. Capture and detention of stormwater to  
12 attenuate peak flows is the Port's "best management practice" of choice to prevent  
13 pollutant loading to surface waters. Specifically, the Port would route stormwater  
14 through swales, natural "filter strips," and settling basins in order to capture the  
15 numerous pollutants transported via stormwater runoff.  
16

17         On initial reading, it appears the Certification requires the Port to control its  
18 water quality violations in two ways: through a program of retrofitting of existing  
19 stormwater facilities and construction of new facilities to handle additional runoff  
20 from the additional 300-plus acres of impervious surfaces created by the Third  
21 Runway Project. However, upon close inspection of the Certification, it turns out that  
22 the retrofit plan is illusory – it need only be implemented if the Port (not Ecology)  
23 determines that it is feasible (Section 401 Certification at p. 25). In fact, the Port has  
24



1 already stated that the retrofit plan is infeasible due to cost. Thus, the Section 401  
2 Certification is predicated on a “condition” that is virtually certain not to be met.  
3 Moreover, even were the Port to meet its retrofit ratios, the Project is not likely to be in  
4 compliance with water quality standards for many years. Ecology may not issue a  
5 Section 401 certification when the applicant is in violation of water quality standards  
6 and the violations are not cured as a prerequisite to 401 approval.  
7

8 The Port’s proposed stormwater control facilities also raise serious questions.  
9 The 401 Certification requires the Port to construct at least 15 stormwater vaults and  
10 detention ponds for the purpose of capturing and detaining about 390 acre-feet, or 127  
11 *million* gallons of water. The number and size of these facilities is unprecedented,  
12 rendering the mitigation requirements a highly speculative undertaking, from both  
13 technical and financing perspectives. For example, the Port proposes to build a vault  
14 with a capacity of 88 acre-feet – making it the largest stormwater vault in the country.  
15 The stormwater system is expected to cost hundreds of millions of dollars.  
16

17 The Section 401 Certification conditions relating to operational stormwater  
18 requirements contain serious deficiencies, including but not limited to a failure to  
19 impose “all known available and reasonable treatment methods” for stormwater  
20 discharges, i.e., effluent limitations as required by federal law; numerous approvals  
21 that defer analysis and monitoring to later dates (for example, analysis of groundwater  
22 interception by stormwater facilities and its impact on facility sizing will occur at  
23  
24

1 final design stage, rather than in preliminary designs, even though such interception  
2 is inevitable and should have been considered beforehand).

3 **5) Existing Contaminants Beneath the Airport Are at Risk of Migration**  
4 **and Discharge to Surface Waters.**

5 The Section 401 Certification is not based on reasonable assurance that the  
6 Third Runway Project will not violate water quality standards in affected surface  
7 waters because of the failure and inability of the Port to fulfill the terms of the Agreed  
8 Order for Sea-Tac International Airport, No. 97TC-N122, dated May 25, 1999  
9 (Attachment 4), in violation of standards for reasonable assurance set forth in the  
10 Governor's June 30, 1997, letter (Attachment 5). 33 U.S.C. § 1341; 40 CFR § 121.2.  
11

12 The Section 401 Certification is not based on reasonable assurance that the  
13 Third Runway Project will not exceed water quality standards in affected surface  
14 waters because of the risk of migration and discharge of groundwater polluted by  
15 hazardous substances, originating in and around Sea-Tac Airport, to surface waters as  
16 a result of the Third Runway Project. 33 U.S.C. § 1341; 40 CFR § 121.2; RCW  
17 90.48.080; WAC Ch. 173-201A.  
18

19 ACC's objections to the Third Runway Project are predicated, in part, on the  
20 Port's past performance at STIA, particularly its negligence in the area of hazardous  
21 substance control and cleanup. The Port's history is partially revealed in a MTCA  
22 "Agreed Order" issued by Ecology on May 25, 1999, which requires the Port to assess  
23  
24  
25

1 the risk of known and existing contamination at the airport reaching nearby water  
2 resources. See Attachment 4 (Agreed Order).

3 In sum, the Port and its tenants have, over many decades, caused numerous  
4 releases of large quantities of hazardous substances at STIA, including jet fuel,  
5 industrial solvents, mineral spirits, lubricating oil, and de-icing fluids. The Agreed  
6 Order identified thirteen sites where contaminants are present in significant  
7 quantities. In addition, several dozen sites of known or suspected contamination are  
8 not addressed in the Agreed Order.

10 As a result of the Port's activities, both perched and regional aquifers  
11 underlying the airport are polluted. Migration of contaminated groundwater further  
12 threatens local and regional aquifers and surface water bodies. The quality and  
13 movement of groundwater beneath STIA, and how the contamination problem has  
14 been handled, closely informs the question whether Ecology has appropriately issued  
15 the Section 401 certification.

17 Under the Agreed Order, signed more than two years ago, the Port agreed to  
18 develop models to predict groundwater flow and contaminant fate and transport  
19 beneath the airport. This essential MTCA task became a direct requirement of the  
20 Third Runway Section 401 and CZMA decision processes when Governor Gary Locke  
21 committed to the Secretary of the U.S. Department of Transportation that completion  
22 of the groundwater flow and contaminant transport model was required in order for  
23 the state to find, with "reasonable assurance," that the Third Runway Project would

1 “comply with applicable air and water quality standards.” See Attachment 5 (Letter  
2 from Governor Gary Locke to Rodney Slater, Secretary, U.S. Department of  
3 Transportation, 6/30/97). Thus, the Agreed Order establishes benchmarks and  
4 standards for assessing whether the Third Runway Project meets the Section 401  
5 requirement of reasonable assurance.  
6

7 Notwithstanding the Governor’s commitment and the Agreed Order itself, the  
8 groundwater flow and contaminant transport modeling contemplated by the Order  
9 has not been done and is in fact nowhere near completion. Instead, the Port recently  
10 prepared a technical memorandum, dubbed the Preferential Pathways Analysis (PPA),  
11 to evaluate the potential for existing groundwater contaminants to migrate to the area  
12 of the Third Runway embankment due to construction. This study is inadequate in its  
13 scope and also is not complete.  
14

15 The Section 401 Certification references neither the Agreed Order, the  
16 Governor’s Letter nor the PPA. Instead, it directs the Port to prepare a BMP  
17 construction plan, to train staff in the detection of hazardous materials and  
18 contaminated soils and water, and to update the contaminant inventory.  
19

20 This approach to preventing migration and discharge of known and unknown  
21 contaminants to local surface water bodies is deficient in the extreme. While the  
22 location of contaminants is known in some instances and not known in others, no  
23 effort has been made to compare what is known with Third Runway construction  
24 zones. The PPA technical memorandum, upon which the Section 401 decision  
25

1 appears to rely, fails to address whole categories of pollutants, particularly organic  
2 solvents, metals and glycols, that are suspected to lie beneath the airport.

3       The Port's analytic method has focused on transport of contaminants toward  
4 drinking water aquifers. However, known contamination in perched aquifers is more  
5 likely to be encountered in Third Runway Project construction, and is more likely to  
6 discharge to surface waters. This is of particular concern because the many miles of  
7 abandoned utility corridors beneath the airport are thought to be preferential  
8 pathways for migration of contaminants, and are likely to be encountered during  
9 Third Runway construction. Moreover, there is a serious risk that contaminants  
10 mobilized by construction will not be detected at stormwater outfalls. This is because  
11 the existing NPDES stormwater permit, adopted by reference into the Section 401  
12 Certification, does not impose conditions adequate to identify all contaminants at  
13 outfalls when they occur.

16       The purpose of the Agreed Order groundwater study is directly related to the  
17 Section 401 process. There is a distinct risk that hazardous substances present in  
18 groundwater beneath the airport will migrate and discharge to local streams as a  
19 result of the Third Runway Project. Construction of the runway embankment and  
20 especially the embankment underdrain provide pathways by which contaminated  
21 groundwater may lead to violation of surface water quality standards. The Agreed  
22 Order study, which would require the Port to determine ground water flow  
23 characteristics and fate and transport of pollutants, and would model potential risks  
24

1 to adjacent surface water bodies, is absolutely necessary to determine levels of risk  
2 and whether Ecology can vouch for compliance with water quality standards. The  
3 Port's failure to complete the study and Ecology's decision to issue the 401  
4 Certification without it are omissions that undermine the reasonable assurance  
5 requirements of the process.  
6

7       **6)       Embankment Fill Will Be Contaminated and at Risk of Leaching into**  
8       **Wetlands and Surface Waters.**

9       The Section 401 Certification fails to provide reasonable assurance of  
10 compliance with water quality standards because of the risk of migration and  
11 discharge of groundwater polluted by contaminated leachate originating in the fill  
12 materials utilized by the Port to construct the Third Runway Project. 33 U.S.C. §  
13 1341; 40 CFR § 121.2; RCW 90.48.080; WAC Ch. 173-201A.

14       A fundamental component of the Project is the construction of an earthen  
15 embankment to serve as a base upon which the third runway will sit. To do this, the  
16 Port proposes to fill a canyon on the western edge of the airport with twenty (20)  
17 million cubic yards of fill. The fill would be retained in part by the MSE wall (or, the  
18 "Great Wall of Sea-Tac"), a retaining structure fifteen stories high. The embankment  
19 would extend laterally 1.6 miles.  
20

21       The Port has not received all permits to construct the project, including  
22 specifically the Clean Water Act Section 404 permit that would allow it to fill  
23 wetlands. However, to date the Port has already obtained and stockpiled three million  
24

1 cubic yards of fill on airport property sites. In 1999, news broke that the Port's  
2 stockpile included chemically contaminated soils, including polluted sediments from  
3 the Seattle First Avenue Bridge and Hamm Creek dredge sites. It was further  
4 determined that Washington has no specific standards that govern the quality of the  
5 fill that the Port may place in its embankment. Lacking standards, the Port proposed  
6 the use of MTCA Method 'A' Soil Cleanup Levels as a basis for assessing whether fill  
7 is acceptable for the Third Runway Project. These criteria, partially modified, have  
8 now been adopted into the Section 401 Certification.

10 MTCA Method A criteria are inappropriate standards in this setting. The  
11 purpose of MTCA criteria is to determine when existing contaminated or hazardous  
12 waste sites have been cleaned up to a reasonable level, taking into consideration  
13 factors such as feasibility and future use. The proposed embankment area, including  
14 the wetlands and streams to be filled, are now in relatively pristine condition.  
15 Ecology's decision to allow the Port to use fill contaminated at Method A-type criteria  
16 levels is basically a license to contaminate airport property up to a predetermined  
17 level. This is a concept very much in conflict with the "anti-degradation"  
18 requirements of state water quality standards.

21 ACC's concerns center on the fact that the use of chemical contaminants  
22 associated with fill materials at the embankment site may percolate through the fill  
23 pile to groundwater, ultimately discharging to and contaminating wetlands and  
24

1 surface waters. Chemicals in the fill may also directly contaminate surface waters  
2 through runoff following seasonal rains.

3         The Section 401 conditions relating to acceptance of fill are defective for many  
4 reasons. These include the use of groundwater standards, rather than surface water  
5 quality standards, as the basis for fill acceptance criteria; the failure to require  
6 sampling for contaminants likely to be encountered under this approach; the failure to  
7 establish criteria for said contaminants; and the lack of statistically meaningful  
8 method to determine the location and extent of contamination in candidate fill  
9 materials.  
10

11         The Section 401 Certification is also deficient in its relationship to the NPDES  
12 stormwater permit, which it adopts by reference, and which was recently modified to  
13 address construction stormwater discharges caused by the Third Runway Project.<sup>1</sup>  
14 That permit, and the Section 401 Certification, impose BMP requirements designed to  
15 control turbidity, pH, oil and grease, and temperature, but not the types of toxic  
16 pollutants that are actually sampled for and expected to be found in the contaminated  
17 fill used in the embankment.  
18  
19  
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22

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23 <sup>1</sup> Ecology's major modification of the Port's NPDES Permit No. WA-002465-1, issued on May  
24 29, 2001, is the subject of an appeal and request for stay now pending before the Board in the  
25 matter of *CASE v. Ecology and Port of Seattle*, PCHB No. 01-090.



1           **7)     Embankment Failure.**

2           The Section 401 Certification fails to provide reasonable assurance of  
3 compliance with water quality standards because of its failure to address and provide  
4 mitigation for potential failure during seismic events of all or portions of the MSE wall  
5 and embankment structures. Any such failure will result in discharge of pollutants to  
6 local streams, wetlands and other surface waters, and will lead to violation of state  
7 water quality standards. 33 U.S.C. § 1341; 40 CFR § 121.2.

8           The Port of Seattle proposes to construct in a seismically sensitive area a  
9 fifteen-story-high retaining wall 1500 feet in length to retain part of the 20 million  
10 cubic yards of fill. While a project of this magnitude and importance should be held  
11 to the highest standards, in fact, the seismic modeling and analyses conducted for the  
12 MSE wall, particularly the potential for liquefaction of unstable fill materials, are  
13 incomplete and incorrect. As a result, design specifications overestimate post-  
14 earthquake stability, and the embankment is at risk of failure following a large seismic  
15 event.

16           Because of the proximity of the embankment to local streams, failure of even a  
17 part of the structure would likely have disastrous consequences to downstream water  
18 bodies. In such an event, erosion and collapse of portions of the wall would result in  
19 sediment loads and inundation to local streams that would be expected to violate  
20 water quality standards. This risk is not trivial but has not been adequately addressed  
21  
22  
23  
24

1 in the technical studies prepared for the Project. Moreover, the Section 401  
2 Certification contains no mention of or conditions or mitigation for this risk.

3 **8) Wetland Impacts & Mitigation.**

4 The Section 401 Certification fails to provide reasonable assurance of  
5 compliance with water quality standards because of its failure to address the impacts  
6 of in-basin wetland fill and concomitant mitigation activities on water quality in the  
7 streams surrounding Sea-Tac Airport. The proposed wetland mitigation activities are  
8 likely to cause violations of state water quality standards. The Section 401  
9 Certification also relies upon the Port's Natural Resources Mitigation Plan (NRMP),  
10 which provides for both on-site and out-of-subbasin wetland creation and  
11 enhancement. The NRMP fails to ensure adequate and appropriate mitigation for the  
12 aquatic resources impacts caused by the Third Runway Project. 33 U.S.C. § 1341; 40  
13 CFR § 121.2.

14 Under the Clean Water Act, the Port must mitigate for permanent obliteration  
15 of approximately 20 acres of wetlands in and around the Third Runway site. The  
16 Section 401 certification adopts the Port's proposal to enhance and create new  
17 wetlands both on-site and at a site in Auburn, Washington, over 15 miles away from  
18 the airport. Specifically, the Section 401 decision adopts, with modifications, the  
19 Port's Natural Resources Mitigation Plan (NRMP) and performance standards, requires  
20 the creation of a new (i.e., not in existence) plan to address impacts to additional lost  
21  
22  
23  
24

1 wetland acreage, requires imposition of restrictive covenants, and establishes  
2 monitoring protocols.

3 While these requirements appear to mitigate, in terms of absolute numbers, the  
4 wetland impacts of the Project, in fact the NRMP will not fully offset impacts to  
5 streams, wetlands and riparian zones. By adopting the Port's NRMP, the 401  
6 conditions ignore the lack of equivalence between the quality of the wetlands to be  
7 destroyed, and those that are proposed in compensation. As a result, the Port's  
8 mitigation results in a net loss in wetland functionality. This net loss occurs both as a  
9 result of flawed proposals for on-site enhanced and replacement wetlands and failure  
10 to identify and assess wetland functionality at the Auburn mitigation site.  
11

12 The NRMP and the 401 Certification also fail to recognize the impacts of the  
13 Third Runway Project on Miller Creek watershed hydrology, a degraded system where  
14 watershed function is already compromised. The loss of wetlands representing 27%  
15 of the remaining wetlands in the upper watershed will directly contribute to a decline  
16 in aquatic ecosystem function, which is likely to result in violation of state water  
17 quality standards. Cumulative effects analysis that would capture and consider this  
18 problem is absent from the Port's wetlands impact studies.  
19

20 Other problems with the Section 401 conditions include, but are not limited to,  
21 failure to identify all permanent wetland impacts and to provide adequate  
22 compensation for losses; inappropriate time frames for hydrologic monitoring (the  
23 certificate requires monitoring between November and May, however the key time to  
24

1 assess biologic communities in wetlands is March through June and saturation may  
2 occur later in the summer); failure to require mitigation if wetland boundaries  
3 decrease; lack of specificity in standards for conditions; and vague, incomplete and  
4 inconsistent monitoring requirements.

5  
6 **9) The Ecology Decision Was Issued Based on a Process which Violated**  
7 **Applicable Regulations for Public Notice and Comment, and which Did**  
8 **Not Comport with Due Process Requirements.**

9 The Section 401/404 application and associated public notice lacked sufficient  
10 information to generate meaningful comments regarding essential elements of the  
11 Third Runway Project and entirely excluded information on other projects and  
12 activities which are reasonably related to the Third Runway project. For example, no  
13 reference is made in the public notice to Gilliam Creek, the relationship to the Port's  
14 application for a major modification to its NPDES permit, or to the planned temporary  
15 interchange off of SR 509. In addition, the Port's piecemeal approach to assessing the  
16 environmental impacts of the project to water quality has denied the public a  
17 meaningful and timely opportunity to comment. One particularly egregious example  
18 is the Port and Ecology releasing a still yet-to-be-completed Low Streamflow Analysis  
19 only two weeks prior to issuance of the 401 Certification. 33 CFR §§ 325.3(a),  
20 325.2(a)(2), 325.1(d)(3); 33 U.S.C. § 1341; 40 CFR § 121.2.

21  
22 **10) The Section 401/402 Interface.**

23 The Section 401 Certification fails to provide reasonable assurance of  
24 compliance with water quality standards because of its reliance upon previously and  
25

1 prematurely issued NPDES permits, which do not specify with particularity that the  
2 Port must, and how it will, prevent discharges which violate water quality standards.  
3 The Section 401 Certification is also defective for its failure to specify performance  
4 standards governing NPDES permits related to discharges from the Third Runway  
5 Project that will prevent violation of water quality standards in receiving waters. 33  
6 U.S.C. § 1341(d).  
7

8 The Section 401 Certification adopts by reference two NPDES permits recently  
9 issued for the Third Runway Project, a stormwater permit governing construction at  
10 the Auburn wetlands mitigation site, and a major modification to the existing  
11 stormwater permit for the airport site. The latter permit is the subject of an appeal  
12 and stay motion now pending before the Board.  
13

14 The Section 401 Certification and the NPDES permits for the Third Runway are  
15 integrally linked. NPDES permits should be designed to control discharges in a  
16 manner that leads to compliance with water quality standards. The 401 Certification  
17 may rely upon the permit, but must do so in a manner that is consistent with Section  
18 401 law, which requires the imposition of effluent limitations and contemporaneous  
19 compliance with water quality standards at the time the Certification issues.  
20

21 Ecology issued a modification of the Port's NPDES stormwater permit in May  
22 2001. That permit, standing alone, is deficient. It fails to identify discharge points,  
23 fails to control for all pollutants that may reasonably be predicted to be present in  
24 Third Runway construction stormwater (such as toxic chemicals imported in the  
25

1 embankment fill), and fails to provide for monitoring to determine compliance with  
2 standards. Without this information it is impossible to determine the quality and  
3 impacts of permitted discharges. By adopting these permits into the Section 401  
4 Certification, Ecology has duplicated and compounded its original error in issuing the  
5 permits. Lacking specific performance standards, the Section 401 Certification cannot  
6 guarantee that the discharges from the Third Runway Project will not violate water  
7 quality standards.  
8

9       The NPDES permit is also deficient as a mechanism to implement Section 401  
10 requirements. For example, it fails to provide for all known available and reasonable  
11 treatment for construction stormwater and operational stormwater discharges. This  
12 higher standard of pollution control is required under Section 401(d) of the Clean  
13 Water Act, 33 U.S.C. § 1341(d), which requires the imposition of effluent limitations  
14 to control point source discharges. It is also necessary because the Port's existing  
15 stormwater discharges, historically and at present, violate water quality standards.  
16

17       The Section 401 decision is also defective and illegal because it authorizes a de  
18 facto mixing zone. Mixing zones are authorized under WAC 173-201A-100, which  
19 establishes stringent standards for the creation and implementation of this tool. The  
20 Section 401 Certification does not comply with the requirements of this regulation, in  
21 that the location of discharges is unknown, types of pollutants are not identified, no  
22 study has been conducted to determine potential loss of habitat, and AKART has not  
23 been applied.  
24

1           **11) The 401 Certificate Fails to Provide Reasonable Assurance That Water**  
2           **Quality Standards Will Not Be Violated in Gilliam Creek.**

3           The Section 401 Certification fails to provide reasonable assurance of  
4 compliance with water quality standards because of its failure to identify and mitigate  
5 for Third Runway Project construction-related discharges and other impacts to  
6 Gilliam Creek, a stream system adjacent to Sea-Tac International Airport. 33 U.S.C. §  
7 1341; 40 CFR § 121.2.

8           The existing NPDES permit for the airport also establishes unspecified points  
9 along Gilliam Creek as new points of stormwater discharge. This authorization thus  
10 connects Gilliam Creek as a surface water body potentially impacted by the Third  
11 Runway Project. The Port's own Biological Assessment also acknowledges that Third  
12 Runway construction or other activities will generate runoff to Gilliam Creek.  
13 Notwithstanding this new information, neither the Port's submittals nor the Section  
14 401 certification itself address impacts to Gilliam Creek and mitigation to ensure  
15 compliance with water quality standards.  
16  
17

18           **12) Dam Safety.**

19           The Section 401 Certification fails to provide reasonable assurance of  
20 compliance with water quality standards because of its failure to identify and specify  
21 performance standards for structures subject to Dam Safety requirements. 33 U.S.C.  
22 §1341; 40 CFR § 121.2; and WAC 173-1175-010, *et seq.*  
23  
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1           **13) Ecology's Concurrence With the Port's Certification of Consistency**  
2           **With the Coastal Zone Management Act Fails to Comply With the Act.**

3           The concurrence issued by Ecology pursuant to the Coastal Zone Management  
4 Act of 1972, 16 U.S.C. §§1451 to 1464 ("CZMA"), for the Port's consistency  
5 certification fails to comply with procedural and substantive requirements of the  
6 CZMA and Washington's approved Coastal Zone Management Plan. See Managing  
7 Washington's Coast - Washington's Coastal Zone Management Program, Department  
8 of Ecology Publication Number 00-06-029 (February 2001) (the "CZMP").  
9

10          The Port's certification failed to provide all necessary data and information  
11 required by the CZMA and the CZMP. The regulations implementing the CZMA  
12 require an applicant to submit with its certification, among other things, necessary  
13 data and information that is adequate to permit an assessment of a project's probable  
14 coastal zone effects; a brief assessment relating those effects to the relevant elements  
15 of the CZMP; and a set of findings, derived from the assessment, indicating that the  
16 proposed project is consistent with the enforceable provisions of the CZMP.  
17

18          See 15 C.F.R. § 930.58(1)-(4); *see also* CZMP at 116. Further, the findings must  
19 demonstrate adequate consideration of policies that are "in the nature of  
20 recommendations." 15 C.F.R. § 930.58(4); CZMP at 103-107 (discussion of  
21 complementary state policies and programs).  
22  
23  
24



1           The Port's certification failed to meet these requirements and accordingly,  
2 Ecology's concurrency should be reversed and the Board should issue an objection to  
3 the Port's certification.

4           The Port's certification failed to demonstrate consistency with the enforceable  
5 policies of the CZMP, including the Shoreline Management Act, Ch. 90.58 RCW  
6 ("SMA"); the Clean Water Act, 33 U.S.C. §§1251 to 1387 ("CWA"), and its State  
7 counterpart, Ch. 90.48 RCW; the Clean Air Act, 42 U.S.C. §§ 7401 to 17671 ("CAA"),  
8 and its State counterpart, Ch. 70.94 RCW; and the State Environmental Policy Act, Ch.  
9 43.21C RCW ("SEPA").  
10

11           The Port obtained a SMA exemption (from the Substantial Development Permit  
12 requirement) for the Auburn Wetland Mitigation Site. The Port's actions are not  
13 consistent with the SMA because the Port has improperly segmented review of the  
14 Auburn Mitigation site from all other elements of the third runway project. *See e.g.*  
15 *Merkel v. Port of Brownsville*, 8 Wn. App. 844, 850-851, 509 P.2d 390 (1973). Further,  
16 an exemption from the substantial development permit requirement is not an  
17 exemption from compliance with the SMA and local master programs. WAC 173-27-  
18 040. Accordingly, even if the exemption were properly issued, the Port's CZMA  
19 certification is inadequate for failing to analyze the consistency of the Third Runway  
20 Project with the goals and policies of the SMA and each applicable local jurisdiction  
21 master plan.  
22  
23  
24  
25

1           The Port's certification fails to demonstrate consistency with the Clean Water  
2 Act. If the Project is denied Section 401 certification for failure to provide reasonable  
3 assurances of compliance with state water quality standards, then the Port's CZMA  
4 certification is also inadequate for failure to establish consistency with the Clean  
5 Water Act, an enforceable policy of the CZMP.  
6

7           The Port's certification fails to demonstrate the consistency of the third runway  
8 project with SEPA. Environmental review is inadequate because it fails to analyze  
9 impacts of changes to the third runway that are different from the impacts analyzed in  
10 the SEIS or the FSEIS for the project. A supplemental impact statement should be  
11 used when "there are substantial changes so that the proposal is likely to have  
12 significant adverse impacts . . . [or there is] new information indicating a proposal's  
13 probable significant adverse impacts." WAC 197-11-600(4)(d). Rather than issue an  
14 additional SEIS, the Port has segmented environmental review through  
15 determinations of nonsignificance and by the issuance of four separate addenda when  
16 one more detailed Supplemental EIS should have been prepared. In this case, the  
17 issuance of four addenda violates SEPA because it also avoids discussion of  
18 cumulative impacts of all changes contemplated in the four addenda. *See e.g., Indian*  
19 *Trails Property Owner's Association v. City of Spokane*, 76 Wn. App. 430,443, 886 P.2d  
20 209 (1994) (noting that phased review is inappropriate where it results in the  
21 avoidance of discussion of cumulative impacts).  
22  
23  
24

1           **14) The Port's Failure to Update Environmental Review for the Project**  
2           **Pursuant to SEPA Requirements Renders the Section 401 Certification**  
3           **Invalid.**

4           The Port has conducted incomplete environmental review of the Third Runway  
5 Project. The Port and the Federal Aviation Administration jointly issued a final  
6 environmental impact statement for the STIA Master Plan Update in February 1996.  
7 A final supplemental EIS was issued in May 1997. While these initial EISes  
8 considered a variety of issues related to the Project (e.g., airport demand, traffic,  
9 general runway design), they did not consider a number of major design elements that  
10 were incorporated into the project post-EIS. For example, the Port has not conducted  
11 subsequent SEPA/NEPA review for the Stormwater Management Plan, the Low  
12 Streamflow Analysis and Flow Impact Offset Proposal, the use of contaminated fill for  
13 the embankment, and a number of newly disclosed impacts to local streams.

15           While Ecology's action of certifying compliance with Section 401 is exempt  
16 from SEPA requirements, Ecology's decision necessarily rests on complete and  
17 comprehensive environmental review conducted by the third-party applicant.  
18 Because the Port has failed to supplement the Master Plan Update Final and  
19 Supplemental EISes with information about new elements of the construction and  
20 newly discovered impacts of the Project, Ecology has no environmental review upon  
21 which to base its Section 401 decision. The Section 401 decision is therefore invalid  
22 for lack of compliance by the Port with the requirements of the state and federal  
23 environmental policy acts. RCW Ch. 43.21C; 42 U.S.C. §4321, *et seq.*  
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**VI. RELIEF SOUGHT**

Appellant seeks a stay of the August 10, 2001, Section 401 Certificate and CZMA concurrence based both on a likelihood of success on the merits and on the irreparable harm that will occur if the project is allowed to go forward while this appeal is pending. A request for a scheduling conference to set expedited briefing and hearing for Appellant's request for stay accompanies this Notice of Appeal.

Appellant seeks an order of the Board determining that the Section 401 Certificate No. 1996-4-02325 is invalid and vacating the Department of Ecology's issuance of the Certificate.

Appellant further seeks an order directing the Department to commence a new Section 401 process that assures Appellant and the public the opportunity to submit informed comments in the event the Port of Seattle seeks re-issuance of a Section 401 certification.

Appellant reserves the right to amend its appeal in any respect, and to plead and present additional legal theories and errors over those alleged herein, and to request that the pleadings be amended to conform to the evidence.

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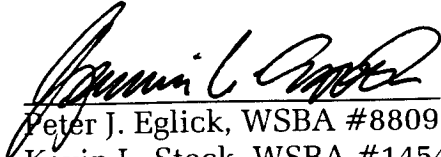
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1 Appellant requests that all further notices and pleadings in this matter be  
2 served upon its attorneys at the address given in section 1 above.


3 DATED this 27<sup>th</sup> day of August, 2001.

4 HELSELL FETTERMAN LLP

5  
6 By:

  
Peter J. Eglick, WSBA #8809  
Kevin L. Stock, WSBA #14541

7  
8  
9 And by:

  
Rachael Paschal Osborn  
WSBA #21618

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11 Attorneys for Appellant

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STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

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

August 10, 2001

**REGISTERED MAIL**

Port of Seattle  
Attn: Ms. Elizabeth Leavitt  
17900 International Blvd., Suite 402  
Seattle-Tacoma International Airport  
SeaTac, WA 98188-4236

Dear Ms. Leavitt:

Re: Water Quality Certification for U.S. Army Corps of Engineers Public Notice 1996-4-02325: Construction of a Third Runway and related projects at the Seattle-Tacoma International Airport (STIA) in the Miller, Walker, and Des Moines Creek watersheds and in wetlands at the Seattle-Tacoma International Airport, located within the vicinity of the city of SeaTac, King County, Washington; and in wetlands at the mitigation site in Auburn, King County, Washington.

The public notice from the U.S. Army Corps of Engineers (Corps) for proposed work has been reviewed. On behalf of the state of Washington, we certify that the work proposed in the Port of Seattle's (the Port's) revised Joint Aquatic Resource Permit Application (JARPA) dated October 25, 2000, the Corps' public notice and the Department of Ecology's (Ecology's) public notice complies with applicable provisions of Sections 301, 302, 303, 306 and 307 of the Clean Water Act, as amended, and other appropriate requirements of state law. This letter also serves as the state response to the Corps.

Pursuant to Section 307(c)(3) of the Coastal Zone Management Act of 1972 as amended, Ecology concurs with the Port's certification that this work is consistent with the approved Washington State Coastal Zone Management Program. This concurrence is based upon the Port's compliance with all applicable enforceable policies of the Coastal Zone Management Program, including Section 401 of the Federal Water Pollution Control Act.

Work authorized by this certification is limited to the work described in the October 25, 2000, JARPA, the Corp's Public Notice, and the plans submitted by the Port to Ecology for review and written approval.

This certification shall be withdrawn if the Corps does not issue a Section 404 permit. It shall also be withdrawn if the project is revised in such a manner or purpose that the Corps or Ecology determines the revised project must obtain new authorization and public notice. The Port will then be required to reapply for state certification under Section 401 of the Federal Clean Water Act.



August 10, 2001

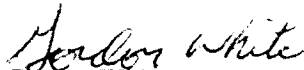
Page 2 of 2

This certification is subject to the conditions contained in the enclosed Order and to the water quality and aquatic resource related conditions of the following permits and approvals:

- The Hydraulic Project Approval (HPA) be issued by the Washington State Department of Fish & Wildlife (WDFW).
- NPDES permit #WA-002465-1, issued by the Department of Ecology on February 20, 1998 and modified on May 29, 2001.
- NPDES General Stormwater Permit for Construction Activity #SO3-00491 issued by the Department of Ecology on April 4, 2001.

If you have any questions, please contact Ann Kenny at (425) 649-4310. Written comments can be sent to her at the Department of Ecology, Northwest Regional Office, 3190 160<sup>th</sup> Avenue SE, Bellevue, Washington, 98008-5452. The enclosed Order may be appealed by following the procedures described in the Order.

Sincerely,



Gordon White

Program Manager

Shorelands and Environmental Assistance Program

GW:AK

Enclosure

cc: Michelle Walker, Corps of Engineers  
Gail Terzi, Corps of Engineers  
Tony Opperman, WDFW  
Tom Sibley, NMFS  
Nancy Brennan-Dubbs, USFWS  
Joan Cabreza, EPA

**AR 008576**



**IN THE MATTER OF GRANTING A  
WATER QUALITY CERTIFICATION  
AND SHORT-TERM WATER  
QUALITY MODIFICATION TO:**

the Port of Seattle, in accordance with 33  
U.S.C. 1341 FWPCA § 401, RCW  
90.48.260  
and WAC 173-201A.

**ORDER #1996-4-02325**

Construction of a Third Runway and related projects. Components of the project include construction of a 8,500-foot-long third parallel runway with associated taxiway and navigational aids, establishment of standard runway safety areas for existing runways, relocating S. 154<sup>th</sup> Street north of the extended runway safety areas and the new third runway, development of the South Aviation Support Area and the use of on-site borrow sources for the third runway embankment.

TO: Port of Seattle  
Seattle-Tacoma International Airport  
Attn: Elizabeth Leavitt  
17900 International Blvd., Suite 402  
SeaTac, WA 98188-4236

The Port of Seattle (Port) requested a water quality certification from the state of Washington for the above-referenced project pursuant to the provisions of 33 U.S.C. 1341 (FWPCA § 401). The request for certification was made available for public review and comment through the U.S. Army Corps of Engineer's Second Revised Public Notice No. 1996-4-02325 dated December 27, 2000, as amended by the Corps' Amendment and Erratum to the Second Revised Public Notice dated January 17, 2001.

The Third Runway site and related Master Plan Update projects and on-site mitigation are located in Sections 4, 5, and 9, Township 22N, Range 4E and Sections 20, 21, 28, 29, 32, 33, Township 23 N, Range 4E in King County. Offsite mitigation will be located in Section 31, Township 22N, Range 5E in King County. The project areas, on-site mitigation and the proposed offsite mitigation are located within Water Resource Inventory Area 9. The projects covered by this Order are described in detail in the December 27, 2000 Public Notice issued by the U.S. Army Corps of Engineers, the October 25, 2000 Joint Aquatic Resource Permit Application (JARPA) and in the plans approved by Ecology as a part of this Order.

For purposes of this Order, the term "Port" shall mean Port of Seattle and its agents or contractors.

Work authorized by this Order is limited to the work described in the October 25, 2000, JARPA, as amended, unless modified by this Order or by conditions contained in other permits sought for the Master Plan Update Improvement projects.

**AUTHORITIES:**

In exercising authority under 33 U.S.C. 1341 and RCW 90.48.260, Ecology has investigated this application pursuant to the following:

**AR 008577**

August 10, 2001

- A. Conformance with applicable water quality-based, technology-based, and toxic or pretreatment effluent limitations as provided under 33 U.S.C. Sections 1311, 1312, 1313, 1316, and 1317 (FWPCA Sections 301, 302, 303, 306, and 307);
- B. Conformance with the state water quality standards as provided for in Chapter 173-201A WAC, and authorized by 33 U.S.C. 1313 and Chapter 90.48 RCW, and with other appropriate requirements of state law; and,
- C. Conformance with the requirement to use all known, available and reasonable methods to prevent and control pollution of state waters as provided by RCW 90.48.010.

#### **WATER QUALITY CERTIFICATION CONDITIONS:**

In view of the foregoing and in accordance with 33 U.S.C. 1341, RCW 90.48.260 and Chapter 173-201A WAC, by this Order water quality certification is granted to the Port, subject to the following conditions:

##### **A. Water Quality Standard Conditions:**

###### **1. Water Quality Criteria**

Des Moines Creek (WA-09-2000), Miller Creek (WA-09-2005) and Walker Creek (1223370474523) are Class AA waters of the state. Certification of this proposal does not authorize the Port to exceed applicable state water quality standards (173-201A WAC) or sediment quality standards (173-204 WAC). Water quality criteria contained in WACs 173-201A-030(1) and 173-201A-040 shall apply to this project, unless otherwise authorized by Ecology. This Order does not authorize temporary exceedances of water quality standards beyond the limits established in WAC 173-201A-110(3). Furthermore, nothing in this Order shall absolve the Port from liability for contamination and any subsequent cleanup of surface waters or sediments occurring as a result of project construction or operations.

Des Moines Creek has been identified on the current FWCPA Section 303(d) list as exceeding state water quality standards for fecal coliform. This project shall not result in further exceedances of this standard.

###### **2. Instream/Shoreline Work Monitoring Plan**

- a) The Port shall submit a monitoring plan for each in-water or shoreline construction project. The monitoring plan shall be submitted to Ecology for review and approval at least thirty (30) days prior to the start of construction. No construction shall begin until the Port receives written approval of the monitoring plan from Ecology.

**AR 008578**

August 10, 2001

- b) All monitoring will be reviewed for compliance with WAC 173-201A.
- c) Port staff or contractors qualified to monitor for water quality compliance shall be on-site during project construction to carry out monitoring and inspect erosion and sedimentation control measures in order to ensure that water quality standards are not exceeded.
- d) In the monitoring plan, the Port shall demonstrate to Ecology that any mixing zone is minimized in conformance with WAC 173-201A-100(6).
- e) At a minimum, the monitoring plan shall include the measurement of turbidity and pH at an agreed point upstream of the point of in-water work or shoreline work and an agreed downstream point not to exceed 100 feet. The monitoring method shall be by a portable turbidimeter and a pH meter following the prescribed maintenance, operating, and calibration procedures in the instrument's instruction manuals. Alternatively, a grab sample can be analyzed by a laboratory accredited under the provisions of Accreditation of Environmental Laboratories, Chapter 173-50 WAC.
- f) If a visual sheen is observed the Port shall sample for oil and grease.

The Minimum Detection Level (MDL) for oil and grease is 0.2 mg/L using trichlorotrifluoroethane extraction and gravimetric analysis using EPA Method 413.1. The quantitation level (QL) for oil and grease is 1.0 mg/L (5 x MDL). An equivalent method is Method 1664 using normal hexane (n-hexane) as the extraction solvent in place of 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113; Freon-113). An equivalent method is total petroleum hydrocarbons with a MDL of 0.1 mg/L using Gas Chromatography and Flame Ionization Detector (FID) and Method WTPH-Dx Diesel (WTPH-D) from the Washington State Department of Ecology Method WTPH-D. The quantitation level (QL) for TPH-Dx is 0.5 mg/L (5 x MDL).

g) If monitoring indicates turbidity standards are not being met at the boundary of the mixing zone, measures shall immediately be taken to reduce turbidity rates, such as slowing the rate of work, placement of additional sediment curtains, etc. A field log in which the results from the turbidity sampling have been recorded shall be maintained at the project site. The field log shall be made available to Ecology staff upon request.

h) Monitoring results shall be submitted every other month to Ecology's Federal Permit Manager, SeaTac Third Runway.

#### **B. Permit Duration:**

1. This Order shall be valid during construction and long-term operation and maintenance of the project.

2. The Port shall reapply with an updated JARPA if **seven years** elapse between the date of the issuance of this Order and completion of the project construction and/or discharge for which the federal license or permit is being sought.
3. The Port shall submit an updated application to Ecology if the information contained in the October 25, 2000 JARPA is altered by subsequent submittals to the federal agency and/or state agencies. Within 30 days of receipt of an updated application Ecology will determine if a modification to this Order is required.
4. Any future construction-related activities that could impact waters of the state at this project location, emergency or otherwise, that are not defined in the October 25, 2000 JARPA, this Order, or have not been approved in writing by Ecology, are not authorized by this Order. Such proposed actions shall be reviewed with Ecology for its written approval prior to implementation.

**C. Notification and Reporting Requirements:**

1. Notification shall be made to Ecology's Federal Permit Manager, SeaTac Third Runway at 425-649-4310, 425-649-7098 (Fax), mail: 3190 160<sup>th</sup> Avenue SE, Bellevue, WA 98008 or by e-mail at aken461@ecy.wa.gov for the following activities:
  - a) at least thirty (30) days prior to the pre-construction meeting to review environmental permits and conditions,
  - b) at least ten (10) days prior to starting construction of each of the projects identified in Table A-3 (Comprehensive Stormwater Management Plan, Volume 2) and each of the mitigation sites identified in the Natural Resource Mitigation Plan, and
  - c) within seven (7) days after the completion of construction of each of the projects identified in Table A-3 (Comprehensive Stormwater Management Plan, Volume 2) and each of the mitigation sites identified in the Natural Resource Mitigation Plan.

**NOTE:** The required notifications shall include the Port's name, project name, project location, the number of this Order, the name of contractor and any subcontractor, contact and contact's phone number.

2. The Port shall ensure that all appropriate Project Engineer(s) and the Lead Contractor(s) at the project site and/or mitigation sites have read and understand relevant conditions of this Order and all permits, approvals, and documents referenced in this Order.
  - a) The Port shall provide to Ecology a signed statement, **Attachment A**, from each Project Engineer(s) and Lead Contractor(s) that they have read and understand the

conditions of this Order and the above-referenced permits, plans, documents and approvals.

- b) These statements shall be provided to Ecology no less than seven (7) days before each Project Engineer or Lead contractor begins work at the project or mitigation sites.
3. All reports, plans, or other information required to be submitted by this Order shall be submitted in triplicate to Ecology's Federal Permit Manager, SeaTac Third Runway, at 3190 160<sup>th</sup> Avenue SE, Bellevue, WA 98008-5452.
4. Documents required to be submitted to Ecology for review and/or approval by this Order shall be submitted to Ecology by the time specified in this order. Failure to submit documents by the required time may result in the revocation of this Order. The Port may, on a case-by-case basis, submit a written request for an extension of the specified submittal deadline for a document. Ecology will consider the reasonableness of the request for an extension and may grant an extension for a period of time it deems appropriate. **Ecology will provide any such extension to the Port in writing only.**

**No document, report or plan required by Order shall be deemed approved until the Port receives written verification of approval from Ecology.**

**D. Wetland, Stream and Riparian Mitigation:**

1. Required Mitigation: Mitigation for this project shall be completed as described in the following documents with the following additions and clarifications:
  - the Final Natural Resource Mitigation Plan (NRMP), Master Plan Update Improvements, STIA, dated December 2000 (Parametrix, Inc.).
  - Appendixes A-E, Design Drawings, Natural Resource Mitigation Plan, STIA, dated December 2000 (Parametrix, Inc.).
  - the Revised Grading and Planting Plan for the Auburn Wetland Mitigation site dated June 28, 2001 (Parametrix, Inc.).
  - the revised NRMP performance standards found in Tables 4.2-1, 4.2-2, 5.1-7, 5.2-3, 5.2-8, 5.2-12, 5.2-16, 5.3-2, 5.3-6, and 7.7-1 received July 31, 2001 (Parametrix, Inc.).
  - the revised Borrow Site Three plan sheets and drawings dated June 2001 and received by Ecology on June 18, 2001 (Hart Crowser).

The Port shall amend and/or clarify the documents identified in Condition D.1 as follows:

- a) The Port shall increase the duration of monitoring from ten (10) to fifteen (15) years.

- b) Table 4.2-1 of the NRMP (July 31, 2001) outlines the performance standards for vegetation cover by vegetation zone and monitoring year. A note shall be added to the table that states: "Invasive plant species cover will be monitored during all monitoring years."
- c) In addition to the non-native invasive species listed in Table 4.2-2 of the NRMP (July 31, 2001), hedge bindweed (*Convolvulus sepium*), giant knotweed (*Polygonum sachalinense*) and evergreen blackberry (*Rubus laciniatus*) shall be monitored and controlled in the mitigation sites.
- d) All performance standards addressing cover of non-native plants shall read: "Cover of non-native invasive species will be no greater than 10% in any year in newly planted or enhanced areas."
- e) Table 5.1-7 of the NRMP (July 31, 2001) states that shade cloth will be placed over the new channel. The Port shall provide a map of the location for the shade cloth, details on how it will be installed, and a schedule of installation and removal.
- f) The Port shall provide Ecology with written documentation of the implementation of any of the contingency measures and adaptive management measures set forth in the NRMP. Temporary erosion and sedimentation measures approved by Ecology shall remain in effect for all adaptive management measures or contingency measures implemented. Any problems identified throughout the mitigation sites shall be immediately corrected. Implementation of corrective actions shall be done within the confines of the contingency measures identified in the NRMP. All contingency measures shall be implemented in a manner such that they do not exceed state water quality standards.
- g) The Port shall monitor hydrologic conditions of all wetlands downslope of the Third Runway embankment in the Miller, Walker and Des Moines Creek sub-basins. Hydrologic monitoring using piezometers and shallow hand dug soil pits in undisturbed wetlands downslope of the Third Runway embankment shall be conducted with sufficient frequency to determine wet season trends. The Port shall conduct bi-monthly hydrologic monitoring during the wet season, November through May, before construction and for at least three (3) years after completion. Maps of sample locations and vegetation in the surrounding areas, observation of stressed vegetation, any adaptive management implemented in the surrounding areas, comparison to baseline data, and conclusions shall be documented and submitted to Ecology on a monthly basis during that period. At the end of each water year, the Port shall complete a trends analysis with proposed contingency measures identified and a schedule for completion of proposed contingency measures.

- h) Existing wetland and mitigated wetland boundaries (including all areas down slope of the Third Runway embankment, Vacca farm, the borrow sites, and the Auburn mitigation site) shall be delineated at years five (5), ten (10), and fifteen (15). A licensed survey crew shall survey the wetland points established. The delineation map and comparisons to previous delineation maps shall be furnished to Ecology by December 31st for each of the years in which a delineation is conducted. If the delineation shows the wetland boundaries have decreased then additional in-basin mitigation may be required by Ecology.
- i) Final performance standards for the replacement drainage channel shall read: "Construct the replacement channel to convey all storm events equal to or less than the 100-year, 24-hour design storm and seepage water collected by the embankment drains layer and adjacent areas." (Revised Performance Standards, Table 5.2-12 NRMP)
- j) Revised Table 5.2-12 of the NRMP (July 31, 2001) proposes a performance standard that monitors the change in plant species in undisturbed wetlands, where the hydrology is being replaced through inputs from the replacement drainage channel. Emergent non-invasive plants provide a better indicator for general plant species trends over time than trees and shrubs because typically their root structures are shallower, and subsequently respond to hydrologic changes more quickly. The Port shall amend the monitoring condition in Table 5.2-12 to read: "Wetland indicator status (WIS) of the dominant noninvasive plant species shall not differ from pre-project conditions during or at the end of the monitoring period. Each vegetative strata (trees, shrubs and emergents) shall be assessed separately, and have separate conclusions. Statistically valid sampling procedures will be employed to monitor these potential changes, in all areas where there is a potential to change the post construction hydrology (down slope of the embankment, and the borrow sites). WIS status of the vegetation will be calculated as described in the 1987 USACE or Washington State Department of Ecology delineation manuals."
- k) In all areas where soil saturation is being monitored the performance standards shall include the following conditions: "Other wetlands with predominantly mineral soils shall have soils saturated within the upper 16 inches to mid-April in years of normal rainfall."
- l) Soils stockpiled for mitigation purposes for over one year require the reintroduction of naturally occurring microbes, prior to use in mitigation sites. This shall be accomplished through introduction of soils microbial inoculants, or through introduction of well decomposed organic matter.
- m) The Port shall redevelop the sample data sheets to meet all the monitoring requirements set forth this order.

- n) Auburn Mitigation Site- Emergent marsh plants shall be planted with rhizomes 12" on center (o.c.) instead of the 18" o.c. currently specified. Areas that are designated for hydroseeding that have visible surface water at the time of planting those areas shall be planted with plugs. Routine maintenance, such as, weeding, removal of non-native species, and watering, shall occur at least twice a year in all areas and more often in areas if needed. The maintenance crew shall be overseen by a wetland biologist to assist with identifying invasive species and identifying problem areas.
- o) Vacca Farm Mitigation Site- Revised Table 5.1-7 of the NRMP (July 31, 2001) Final performance standards shall have a note added that reads: "Observable surface flow must be present in the created channel at all times."
- p) Contingency measures and additional monitoring of the mitigation areas shall be required by Ecology if wetland monitoring reveals that vegetation establishment or wildlife use of the wetland is not sufficient to meet the success standards. Additional monitoring may be required beyond the fifteen (15) year period if mitigation success is not achieved within the fifteen (15) year monitoring period.
- q) The wetland mitigation planting plan shall be field inspected by Parametrix, Inc. or another qualified wetland consulting firm during construction and planting to ensure proper installation.
- r) The boundaries of the mitigation area and buffers shall be permanently marked with stakes at least every 100 feet or with construction fencing. The marking shall include signage that clearly indicates that mowing and fertilizer/pesticide applications are prohibited within mitigation areas.
- s) Ecology and the U.S. Army Corps of Engineers shall be notified a minimum of three days in advance of field monitoring work by the Port. Ecology or its designee shall be allowed access to all mitigation sites for the entire monitoring period.

2. Restrictive Covenants:

The Port shall place restrictive covenants on the deeds for the following mitigation sites: Miller Creek Mitigation Area; Miller Creek/Lora Lake/Vacca Farm Wetland and Floodplain Mitigation Area; Tyee Valley Golf Course Mitigation Area; Auburn Wetland Mitigation Area; and Des Moines Creek Mitigation Area (June 28, 2001, Foster, Pepper and Shefelman). The Port shall record the restrictive covenants with King County no later than sixty (60) days after the issuance by the U.S. Army Corps of Engineers of the Section 404 required for construction of the Master Plan Update projects.

Any changes to the restrictive covenants shall require written approval by Ecology.



Violation of any term of the restrictive covenants shall be considered a violation of this Order.

3. Submittal of a Revised Mitigation Plan

The Port shall submit to Ecology for its review and written approval a revised NRMP which includes the changes or additions required by this Order for review and written approval no later than November 30, 2001. The revised NRMP shall include revised plan sheets that address the corrections required in **Attachment B**.

If, after revision of the NRMP required by this Order, the Port submits a further revised NRMP to the U.S. Army Corps of Engineers for review, the Port shall simultaneously submit the same revised NRMP to Ecology for its review and written approval. No fill shall be placed in waters of the state until the revised NRMP submitted to the U.S. Army Corps of Engineers has been approved by Ecology.

A Final NRMP shall be prepared and submitted to Ecology within three months after a Section 404 permit has been issued by the U.S. Army Corps of Engineers.

4. Mitigation for Temporary Impacts

The December 2000 NRMP indicates that up to 2.05 acres of wetlands will be affected by the construction of temporary stormwater management ponds and other construction impacts (p. 4-8 and other). Approximately 1.25 acres will result from the construction of the stormwater ponds in the Miller Creek basin. Ecology has determined that the impacts characterized as "temporary" in the NRMP are not temporal in nature because they will last for longer than a one-year period. The agency considers these impacts to be permanent and has determined that additional in-basin mitigation is necessary in the Miller Creek basin. Additional mitigation is necessary in order to mitigate for hydrologic, water quality and general habitat impacts that will result from the "temporary" impacts. In-basin mitigation is necessary to provide a "temporal lift" of wetland water quality and general habitat functions.

In order to compensate for these unmitigated impacts in the Miller Creek basin, the Port shall prepare a mitigation plan for submittal to Ecology for its review and written approval. A conceptual plan shall be submitted to Ecology for review and written approval by September 30, 2001. Upon receipt of Ecology's written approval of the mitigation plan, the Port shall amend the NRMP to incorporate the approved mitigation plan. The plan must contain the following elements:

- a) The wetland/riparian zone comprised of Wetlands A17b/c/d (Wetland A17 Complex) and "Water D" shall be added to the wetland and buffer

restoration/enhancement on Miller Creek. This area is depicted in **Attachment C** titled "Wetland A17 Complex". A 100-foot buffer shall be placed to envelop this system. Wetlands A17b/c/d comprise a total of 2.64 acres and "Water D" totals 0.16 acres for a combined total of 2.80 acres (not including the buffer). The buffer shall be averaged, similar to the buffer on Miller Creek. The buffer area may include location of the airport detection system (ADS) to the extent that its footprint has been minimized to the extent practicable.

- b) The plan shall use the same goals and performance standards as the NRMP approved by this Order.
- c) The plan shall evaluate the feasibility of improving the hydrologic connection of the Wetland A17 Complex to Miller Creek via "Water D", including but not limited to removing the underground pipe. If it is feasible to improve the hydrologic connection of the Wetland A17 Complex to Miller Creek via "Water D", the Port shall include a plan for improving the connection in its submittal.
- d) Homes, driveways, concrete, fill, septic systems and other unsuitable material with be removed from Wetlands A17b/c/d, in a manner that meets the treatment protocol established for the Miller Creek restoration in the NRMP.
- e) The plan shall develop a buffer restoration and re-vegetation plan for this area that meets the treatment protocol for the Miller Creek restoration in the NRMP. This shall include the removal of invasive species, and replanting of appropriate native species.
- f) The plan shall evaluate the potential for wetland restoration, creation and enhancement within this new mitigation zone. This shall include evaluation of the reconnection of Wetlands A17b and A17c by removal of the road between them and removal of the road that separates Wetlands A17a and A17b. Ecology recognizes the need for an access road to the TRACON facility between Wetlands A17c and A17d.
- g) The buffer shall be joined with the buffer on Miller Creek to the south.
- h) A restrictive covenant shall be drafted for this additional mitigation area. The restrictive covenant shall be consistent with other restrictive covenants established for this project. The Port shall record the restrictive covenants with King County no later than sixty (60) days after the issuance by the U.S. Army Corps of Engineers of the Section 404 required for construction of the Master Plan Update projects.

5. Borrow Site One –

The performance standards for Borrow Site One in Table 5.3-6 of the NRMP (July 31, 2001) allow for monitoring of the wetland hydrology. The evaluation approach shall compare the shallow groundwater data collected to data collected pre-construction. Wetlands 48, B15, 32, B12, B4, and B1 shall be evaluated using this approach. The Port shall provide to Ecology bi-monthly hydrologic monitoring during the wet seasons, November through May, for at least three (3) years after completion. Maps of sample locations and vegetation in the surrounding areas, observation of stressed vegetation, any adaptive management implemented in the surrounding areas, comparison to baseline data, and conclusions shall be documented and submitted to Ecology on a monthly basis during that period. At the end of each water year the Port shall complete and submit to Ecology a trends analysis with proposed contingency measures identified and a schedule for completion of the proposed contingency measures.

6. Borrow Site Three- The following conditions apply to Borrow Site 3:

- a) The site plan from Hart Crowser titled Post Reclamation Topographic detail Borrow Area 3 Wetland Protection Swale HNTB revision (June 15, 2001 Draft) shows a flow dispersal trench overlapping with a small portion of Wetland 29. The flow dispersal trench shall not be constructed so that it is in the wetland.
- b) The wetland protection swale shall be lined (with HDPE or other similar liner material) where necessary to minimize infiltration of captured seepage water through the bottom of the swale (as described in Hart Crowser 2000b Sea-Tac Airport Third Runway – Borrow Area 3 Preservation of Wetlands; memorandum from Michael Kenrick and Michael Bailey (Hart Crowser) to Jim Thomson (HNTB) on wetland hydrology and proposed drainage swale design (October 20, 2000)).
- c) Excess water from the stormwater overflow structure shall be diverted away from the wetland protection swale to a stormwater detention pond (as described in Hart Crowser 2000b Sea-Tac Airport Third Runway – Borrow Area 3 Preservation of Wetlands; memorandum from Michael Kenrick and Michael Bailey (Hart Crowser) to Jim Thomson (HNTB) on wetland hydrology and proposed drainage swale design (October 20, 2000)).
- d) The Port shall monitor hydrologic conditions of wetlands remaining in and adjacent to the borrow sites. Hydrologic monitoring using piezometers and shallow hand dug soil pits in undisturbed wetlands associated with Borrow Site Three shall be conducted with sufficient frequency to determine wet season trends. Special emphasis shall be given to the area near where the drainage swale discharges into Wetland 29, to provide an early indication of hydrologic duress to plants in the wetland. The Port shall provide to Ecology bi-monthly hydrologic

during the wet seasons, November through May, before construction and for at least three (3) years after completion. Maps of sample locations and vegetation in the surrounding areas, observation of stressed vegetation, any adaptive management implemented in the surrounding areas, comparison to baseline data, and conclusions shall be documented and submitted to Ecology on a monthly basis during that period. At the end of each water year the Port shall complete and submit to Ecology a trends analysis with proposed contingency measures identified and a schedule for completion of the proposed contingency measures.

- e) The wetland protection swale shall be inspected and maintained at a minimum frequency of two (2) times per year. Swale maintenance shall include adjustment of flow control weir boards to provide appropriate flows to Wetland 29, and removal of vegetation or fill in the swale which may interfere with the seepage collection and diversion functions of the swale. The weir shall be calibrated so that flow rates can be observed at any time.
- f) **Increased Buffer Area:** In order to protect the hydrologic functions, and hydrology supporting Wetlands 29, 30, B5, B6, B7, and B9, all areas up slope of the wetlands within the property shall be included in the wetland buffer. Additionally, the Port shall ensure protection of hydrology to Wetlands 29, 30, B5, B6, B7, and B9 from future development. The wetland protection swale shall also be included in a restrictive covenant, with 25 foot buffers on either side of the swale. Those areas are depicted in **Attachment D**, Borrow Area 3 Wetland Buffer. A restrictive covenant shall be drafted for this additional buffer area. The restrictive covenant shall be consistent with other restrictive covenants established for this project. The Port shall record the restrictive covenants with King County no later than sixty (60) days after the issuance by the U.S. Army Corps of Engineers of the Section 404 required for construction of the Master Plan Update projects.
- g) The performance standards in Table 5.3-6 of the NRMP (July 31, 2001) allow for monitoring of the surface water in Wetland 30. The evaluation approach states that shallow groundwater monitoring wells will be used. The evaluation approach shall be changed to provide that surface water depths are measured monthly during the period from December through April, and the monitoring results compared to pre-construction data.

7. Wetland, Stream and Riparian Mitigation Monitoring and Reporting:

- a) Monitoring of all wetland mitigation sites identified in the December 2000 NRMP and the June 2001 Auburn Grading and Planting Plan, as revised below, shall be incorporated into the Final NRMP submitted to Ecology.
  - i) Monitoring shall be completed at least yearly for a fifteen (15) year period

with initial monitoring starting after the first growing season after installation of plants. If at any point during the monitoring period the results of monitoring show that the success criteria established in the plan are not being met, Ecology may require corrective action, additional monitoring, and additional mitigation.

ii) The Port shall prepare and submit annual monitoring reports to Ecology's Federal Permit Manager, SeaTac Third Runway, Northwest Regional Office, 3190 160<sup>th</sup> Avenue SE, Bellevue, WA 98008-5452 no later than December 31<sup>st</sup> of each year following the first year of the mitigation site work. Each year's monitoring report shall include photographic documentation of the project taken from permanent reference points. The Port shall identify and incorporate permanent reference points into the Final NRMP.

iii) As-Built Report: An as-built report documenting the final design of all wetland mitigation sites shall be prepared when the initial planting is completed. The report shall include the following:

- final site topography;
- photographs of the area taken from established permanent reference points;
- a planting plan showing species, densities, sizes, and approximate locations of plants, as well as plant sources and the time of planting;
- habitat features (snags, large woody debris, etc) and their locations;
- drawings in the report shall clearly identify the boundaries of the project;
- locations of sampling and monitoring sites; and
- any changes to the plan that occurred during construction.

The As-Built Report shall include detailed plans showing locations of all monitoring transects and locations. All vegetation sampling and analysis shall employ statistically valid sampling and analysis procedures during each of the monitoring events. Monitoring reports shall show all sampling locations, discuss trends and changes, discuss success in achieving performance standards or other implementation difficulties, provide remedies to address implementation problems, and set forth a timeline for their resolution. Supporting data and calculations shall be maintained by the contractor and made available to Ecology upon request.

- iv) The As Built Report shall be sent to Ecology's Federal Permit Manager, SeaTac Third Runway within sixty (60) days of completing the mitigation site.
- v) Any proposed changes to the wetland mitigation and monitoring protocol established in the NRMP and as revised by this Order, must be approved in

writing by Ecology prior to implementation of any changes.

**E. Conditions for Acceptance of Fill to be used in Construction of the Third Runway and Associated Master Plan Update Improvements:**

The use of imported fill for the proposed Third Runway embankment and associated construction projects of the Port's Master Plan Update Improvements may result in impacts to wetlands or other waters of the state. To ensure compliance with measures designed to minimize potential impacts, the Port shall submit borrow site clean fill certification documentation described in the following sections to Ecology for review and written approval prior to fill placement.

**1. Fill Documentation/Fill Criteria/Fill Source**

The Port shall adhere to the following conditions to ensure that the fill placed for the proposed Third Runway embankment and associated construction projects of the Port's Master Plan Update Improvements does not contain toxic materials in toxic amounts, thereby preventing the introduction of toxic materials in toxic amounts into waters of the state which includes wetlands.

**a) Documentation**

No later than ten (10) business days prior to accepting any fill materials for use on the proposed Third Runway embankment and associated construction projects of the Port's Master Plan Update Improvements, the Port shall submit to Ecology's Federal Permit Manager, SeaTac Third Runway, documentation certifying that the proposed fill source meets the criteria of this Order. The documentation shall contain an environmental assessment of the fill source and shall verify that excavated soil from the proposed fill source complies with the fill criteria set forth below. Findings of the environmental assessment are subject to the review and written approval of Ecology. The environmental assessment shall be conducted by an environmental professional in general conformance with the American Society for Testing and Materials Standard (ASTM) E 1527-00 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, and E 1903-97 Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process. At minimum, the document shall contain the following information:

- i) **Fill Source Description:** Provide a description/location of the fill source, general characteristics of the fill source and vicinity, current use, and a site plan identifying the extent of the excavation, project schedule and the estimated quantity of fill to be transported to the proposed Third Runway embankment and associated construction projects of the Port of Seattle Master Plan Update improvements.

ii) **Records Review:** Obtain and review environmental records of the proposed fill source site and adjoining properties. In addition to the standard federal and local environmental record sources, the following Ecology environmental databases shall be reviewed:

- Confirmed & Suspected Contaminated Site Report
- No Further Action Site List
- Underground Storage Tank List
- Leaking Underground Storage Tank List
- Site Register.

Records review shall also contain historical use information of the fill source and the surrounding area to help identify the likelihood of environmental contamination.

iii) **Site Reconnaissance:** Documentation of visits to each site that identifies current site use and site conditions to assist in identifying the likelihood of environmental contamination and/or the potential migration of hazardous substances onto the site from adjoining properties.

iv) **Fill Source Sampling:** Collect and analyze fill materials for the potential contaminant(s) identified in the Phase I Environmental Site Assessment. At a minimum, fill materials from each fill source shall be analyzed for the following hazardous substances

- Total Antimony
- Total Arsenic
- Total Beryllium
- Total Cadmium
- Total Chromium<sup>1</sup>
- Total Copper
- Total Lead
- Total Mercury
- Total Nickel
- Total Selenium
- Total Silver
- Total Thallium
- Total Zinc
- NWTPH-HCID

<sup>1</sup> Chromium (VI) shall be analyzed if the results of the Phase I Environmental Site Assessment show a likelihood of Chromium (VI) contamination.

For fill source characterization, the following table presents the **minimum** sampling schedule for fill sources with no likelihood of environmental contamination.

Cubic Yards of Soil	Minimum Number of Samples
<1,000	2
1,000 – 10,000	3
10,000 – 50,000	4
50,000 – 100,000	5
>100,000	6

Samples shall be collected at locations that are representative of the fill destined for the proposed Third Roadway embankment and associated construction projects of the Port's Master Plan Update Improvements.

For fill sources with suspected contamination identified by the Phase I Environmental Site Assessment or with complex site conditions, please consult with Ecology's Federal Permit Manager, SeaTac Third Runway for the appropriate sampling requirements.

b) Fill Criteria

The results of the Phase II Environmental Site Assessment sampling and testing shall be compared to the fill criteria to determine the suitability of the fill source for the proposed Third Runway embankment and associated construction projects of the Port's Master Plan Update Improvements.

The following table establishes the fill criteria limitations for the hazardous substances identified in Section E1(a)(iv) of this Order.

Hazardous Substances	Fill Criteria mg/kg <sup>2</sup>
Antimony	16
Arsenic	20
Beryllium	0.6
Cadmium	2
Chromium <sup>3</sup>	42/2000
Copper	36
Lead <sup>4</sup>	220/250
Mercury	2
Nickel <sup>5</sup>	100/110
Selenium	5



Silver	5
Thallium	2
Zinc	85
Gasoline	30
Diesel <sup>6</sup>	460/2000
Heavy Oils	2000

- <sup>2</sup> mg/kg = milligrams per kilogram
- <sup>3</sup> Fill with total chromium concentrations greater than 42 mg/kg and less than 2000 mg/kg may be placed to within six feet of the ground surface. No fill with total chromium concentrations greater than 42 mg/kg may be placed within the first six feet of the embankment. No fill with chromium (VI) concentrations greater than 19 mg/kg may be placed within the embankment.
- <sup>4</sup> Fill with total lead concentrations greater than 220 mg/kg and less than 250 mg/kg may be placed to within six feet of the ground surface. No fill with total lead concentrations greater than 220 mg/kg may be placed within the first six feet of the embankment.
- <sup>5</sup> Fill with total nickel concentrations greater than 100 mg/kg and less than 110 mg/kg may be placed to within six feet of the ground surface. No fill with total nickel concentrations greater than 100 mg/kg may be placed within the first six feet of the embankment.
- <sup>6</sup> Fill with diesel range organics concentrations greater than 460 mg/kg and less than 2000 mg/kg may be placed to within six feet of the ground surface. No fill with diesel range organics concentrations greater than 460 mg/kg may be placed within the first six feet of the embankment.

For hazardous substances other than those identified in the above fill criteria table that have been identified in the Phase II Environmental Site Assessment, the Port shall consult with Ecology's Federal Permit Manager, SeaTac Third Runway for the applicable fill criteria.

c) Fill Sources

Fill materials for the proposed Third Runway embankment and associated construction projects of the Port's Master Plan Update Improvements shall be limited to the following three sources:

- i) State-certified borrow pits
- ii) Contractor-certified construction sites
- iii) Port of Seattle-owned properties.

d) Prohibited Fill Sources

The following fill sources are prohibited for use on the proposed Third Runway embankment and associated construction projects of the Port of Seattle Master Plan Update improvements:

- Fill which consists in whole or in part of soils or materials that are determined to

be contaminated following a Phase I or Phase II site assessment.

- Fill which consists in whole or in part of soils or materials that were previously determined to be contaminated by a Phase I or Phase II site assessment and have been treated in some manner so to be considered re-mediated soils or fill material.

2. As-Built Documentation

The Port shall provide to Ecology for review quarterly summaries of:

- Names and locations of fill sources placed for the previous quarter
- Quantities of fill materials from these fill sources
- Locations and elevations of fill source materials placed within the Third Runway embankment and associated construction projects of the Port's Master Plan Update Improvements.

Ecology may require additional compliance conditions and/or corrective actions upon Ecology's review of the as-built documents. The quarterly summaries shall be provided to Ecology no later than thirty (30) days following the last day of the quarter.

3. Post Construction Monitoring

The Port shall monitor runoff and seepage from the Third Runway embankment area and other associated Port Master Plan Update Improvements where fill is placed for compliance with applicable Washington State surface water criteria. Ground water down-gradient from the fill area shall be monitored for compliance with applicable ground water criteria.

Within 60 days after the issuance of the 401 Water Quality Certification for the Master Plan Update Improvements, the Port shall submit to Ecology for review and written approval a Surface Water and Ground Water Monitoring Plan. The monitoring plan shall be designed to detect impacts of the fill embankment to the receiving water and to the ground water during fill placement and post fill placement. In the event monitoring detects exceedances of the water quality criteria in either surface or ground water; Ecology may revise the fill criteria and/or require corrective action.

**F. Conditions to Prevent Transport of Contaminants:**

1. All Master Plan Update Improvements and all associated utility corridors shall be constructed in a manner that will prevent the possible interception of contaminated groundwater originating from the Airport Maintenance and Operations Area or other potentially contaminated Seattle-Tacoma International Airport (STIA) areas. The Port shall submit to Ecology proposed construction BMPs to prevent interception of contaminated groundwater by utility corridors and a plan to monitor potential

contaminant transport to soil and groundwater via subsurface utility lines at the STIA and submit it to Ecology for review and written approval no later than September 30, 2001. The plan shall be submitted to Ecology's Federal Permit Manager, SeaTac Third Runway.

2. The Port shall have staff trained in the detection of hazardous materials and contaminated soils or water inspect on a regular basis all areas where there is clearing and grading, or construction under way by Port contractors or employees. If hazardous materials or contaminated soils or other indications of contamination are discovered the Port shall immediately cease construction in the suspect area, secure the site and clean up the area in accordance with the Model Toxics Control Act (MTCA), Chapter 70.105d RCW, the Hazardous Waste Management Act, Chapter 70.105 RCW, and with generally accepted best management practices.
3. The Port shall administer and periodically update the contaminant database and contaminant maps and figures for the STIA. The database shall be updated as new information is received. The maps and figures shall be updated annually and delivered to Ecology's Federal Permit Manager, SeaTac Third Runway in a report of findings for review. Maps and figures shall be similar to the maps and figures shown in the Port's "Analysis of Preferential Ground Water Flow Paths Relative to Proposed Third Runway," dated June 21, 2001.
4. The Port shall collect all new environmental data generated by construction activities, cleanup actions, or any other environmental investigations of soil and groundwater throughout the STIA. The information shall be used to update the contaminant database. The Port, airport tenants, and other entities conducting environmental investigations shall continue to provide reports of ongoing cleanup actions and any new contamination discovered to Ecology as required by the MTCA.

#### **G. Dam Safety Requirements:**

1. All facilities identified in Table 3-1 of the Comprehensive Stormwater Management Plan (CSMP) that meet the requirements of Chapter 173-175 WAC (Dam Safety Regulations) shall obtain a Dam Safety Permit from Ecology prior to commencement of construction. If any stormwater facilities identified in the CSMP change during final design such that they meet the requirements of Chapter 173-175 WAC, those facilities shall obtain a Dam Safety Permit from Ecology prior to commencement of construction.

#### **H. Conditions for Upland Construction Activities:**

1. During construction the Port shall comply with all stormwater requirements within the National Pollutant Discharge Elimination System (NPDES) Permit No. WA-

002465-1 as modified on May 29, 2001 for this project.

2. The project shall be clearly marked/staked prior to construction. Clearing limits, travel corridors and stockpile sites shall be clearly marked. Sensitive areas to be protected from disturbance shall be delineated and marked with brightly colored construction fence, so as to be clearly visible to equipment operators. All project staff shall be trained to recognize construction fencing that identifies sensitive areas boundaries (wetlands, streams, riparian corridors, buffers, etc.). Equipment shall enter and operate only within the delineated clearing limits, corridors and stockpile areas.
3. The Port shall follow and implement all specifications for erosion and sediment control specified in the Stormwater Pollution Prevention Plan (SWPPP) and/or Erosion and Sediment Control (ESC) plan as required in the NPDES permit. The erosion control devices shall be in place before starting construction and shall be maintained, so as to be effective throughout construction.
4. Stormwater Detention for New Outfalls: Any new diversion ditch or channel, pond, trap, impoundment or other detention or retention BMP constructed at the site for treatment of stormwater shall be designed, constructed, and maintained to contain and provide treatment for the peak flow for the ten (10)-year 24 hour precipitation event estimated from data published by the National Oceanic and Atmospheric Administration.
5. The Port shall periodically inspect and maintain all erosion control structures. Inspections shall be conducted no less than every seven (7) days from the start of the project to final site stabilization. Daily inspections of sedimentation ponds shall occur during wet seasons. Additional inspections shall be conducted after rainfall events greater than 0.5 inches per 24-hour period, to ensure erosion control measures are in working condition. These inspections shall be conducted within 24 hours after the event. Any damaged structures shall be repaired immediately. If it is determined during the inspection that additional measures are needed to control stormwater and erosion, such measures shall be implemented immediately. Inspections shall be documented in writing and shall be available for Ecology's review upon request.
6. Wash water containing oils, grease, or other hazardous materials resulting from wash down of equipment or working areas shall not be discharged into state waters except as authorized by an NPDES permit or state waste discharge permit.
7. Machinery and equipment used during construction shall be serviced, fueled, and maintained on uplands in order to prevent contamination to surface waters.
8. Grading/Construction in Borrow Areas: The depth of the excavation at the borrow

areas shall be limited to a depth ten (10) feet above the maximum seasonal groundwater table. The maximum seasonal ground water table shall be determined by the monitoring wells on Port property. Depth of excavation and maximum seasonal ground water elevations shall be submitted annually to Ecology's Federal Permit Manager, SeaTac Third Runway.

**I. Conditions for Mitigation of Low Flow Impacts:**

1. Ecology has reviewed and approved the December 2000 Low Streamflow Analysis and the Summer Low Flow Impact Offset Facility Proposal dated July 23, 2001. In order to ensure clarity, within 45 days of receipt of this Order the Port shall submit a revised plan integrating the Low Streamflow Analysis and Summer Low Flow Impact Offset Facility Proposal into a single document that addresses the following issues:
  - a) General:
    - i) The revised plan shall be stamped by a licensed professional civil engineer.
    - ii) All supporting documents shall be clearly labeled and included in a technical appendix and/or on one clearly labeled CDROM. Only those files which directly correspond to results presented in the report should be included.
    - iii) The plan shall include a specific section discussing the accuracy of the calibration in predicting low flows at upper stream gauges, and a statement of adequacy of the calibrations for the purpose of low flow simulation.
    - iv) Revised conceptual drawings for reserve storage vaults shall be submitted that include any changes required by this Order and that include details on how constant discharge will be maintained in reservoirs with variable hydraulic head pressures. Reserve vault inlets and outlets shall be configured so that water is added/discharged from the middle of the reserve storage depth in order to avoid disturbing sediments and/or floatables that could be present in the reserve vault. In order to ensure that reserve water is well aerated, reserve storage vaults shall include open ventilation consistent with King County Surface Water Design Manual wetvaults. Mechanical aeration shall be provided if grating is not feasible. Conceptual drawings shall include detail on reserve water outfalls. Where feasible, outfalls shall discharge directly to wetlands that are adjacent (in hydrologic continuity) to streams rather than directly to streams.
    - v) A final Operations and Maintenance Plan shall be included in the revised plan. The Operations and Maintenance plan section of the report shall require the release of any water remaining in the reserve vaults during the month of November or until substantial rains occur. The Operations and

Maintenance Plan shall address management of accumulated sediments in reserve storage vaults. All accumulated sediments shall be disposed of in an appropriate upland disposal site.

- vi) The revised plan shall include a monitoring protocol to determine whether placement of the Third Runway embankment fill and other fill used for Master Plan Update Improvements meets fill specifications for type of material, meets specifications for compaction rates, and meets assumption for infiltration rates.
- vii) The revised plan shall include contingency measures to offset reduced recharge in the event the Third Runway embankment fill and other fill used for Master Plan Update Improvements does not meet performance standards for infiltration rates.
- viii) The revised plan shall include information demonstrating that low flow mitigation (vault releases) can be conveyed to streams without being lost to soil.
- ix) The Port shall develop a pilot program to test one reserve stormwater vault for performance. The Port shall include a proposal for a pilot in the revised plan. The pilot shall be completed within three years after receipt of the Section 404 permit from the U.S. Army Corps of Engineers.
- x) The revised plan shall identify and analyze all direct or indirect impacts to wetlands as a result of low flow impacts and the proposed low flow mitigation. The revised plan shall contain contingencies to mitigate for impacts to wetlands if wetland impacts are identified as a result of monitoring.

b) Des Moines Creek-

- i) The revised plan shall provide data comparing the existing simulation of low flows against the Tyee Golf Course weir gauge data. The Port shall provide representative hydrographs, associated discussion and statement of adequacy of the calibration for simulating low flows.
- ii) SDS3 vault design (sheet C141) indicates that not all inlet pipes are tributary to the reserve storage vault. The revised plan shall factor into the vault filling calculations the effects of having a reduced tributary area.
- iii) SDS4 vault design (sheet 139) shall be reconfigured to show the vault inlet pipe at a lower elevation. A note similar to the one found on exhibit C131 should be included here. The Port shall evaluate the feasibility of providing reserve storage only in the SDS3 vault.

c) Walker Creek-

- i) In place of the Port's proposal to line 3.5 acres of filter strip within the SDW2 subbasin, the Port's revised plan shall provide that low flow

mitigation water for Walker Creek will be obtained from the collection of winter runoff from the 69 acres of impervious surface being added in the Walker Creek non-contiguous groundwater basin. Reserve stormwater collected from this area may be stored in either the proposed 15-acre foot vault in Walker Creek or in the SDS3 vault. If, within thirty (30) days of receiving this order, the Port submits to Ecology information demonstrating that another feasible and implementable alternative exists, Ecology will review the alternative and consider amending this Order to allow implementation of the alternative.

- ii) The current proposal for Walker Creek assumes no contribution from the Third Runway embankment fill. If the revised plan includes a reinstatement of the Third Runway embankment model, the area of the fill embankment tributary to Walker Creek shall be verified and modeled accordingly.

d) Miller Creek-

- i) The revised plan shall verify whether the 1991 impact number is 0.11cfs or 0.12cfs. Unless shown otherwise, Ecology shall presume that 0.12cfs is the correct number.
- ii) The revised plan shall include the correct "Low Flow Miller 91-94.xls" file and back-up data that produce a future 1991 7-day low flow of 0.67cfs shall be included on CDROM.
- iii) The revised plan shall include documentation that clarifies whether the existing (1994) condition 1991 low flow is 0.784cfs as was used in electronic files or 0.79cfs as was presented in the July 23, 2001 memorandum.
- iv) The revised plan shall correct the impervious acreage figures provided for the new North Employees Parking Lot (NEPL) vault to reflect 26.29 acres of impervious (Miller 2006 HSPF model), rather than 32.31 acres.
- v) The Port shall evaluate orifice sizing and determine whether a change in orifice size and/or a reduction in the number of reserve stormwater vaults is warranted. The revised plan shall evaluate vault locations for feasibility and special design considerations (e.g., upstream spill control, oil controls, downstream compost filters, etc.) to ensure that reserve stormwater from the NEPL and cargo vaults will receive adequate treatment to ensure water quality.
- vi) The revised plan shall include BMPs developed to ensure infiltration into the Third Runway embankment rather than into the Third Runway embankment conveyance system.
- vii) The revised plan shall include revised Grading and Drainage sheets 129 and 130. The revised sheets shall clarify the flow in the collection swales.
- viii) Revised conceptual drawings, and supporting analysis, shall be submitted with the revised plan that address water quality concerns for the NEPL and

Cargo reserve storage areas.

- e) Monitoring and Reporting Requirements: The revised plan shall develop a comprehensive monitoring protocol that, at a minimum, addresses the following elements:
- i) Collection of stream gage data and an evaluation/correlation to expected flow rates established by the model.
  - ii) Water quality sampling and reporting. Water quality shall be tested at vault outflow and instream at a point 100 feet downstream of the outflow.
  - iii) Metering of water from vaults.
  - iv) Infiltration rate sampling and monitoring to evaluate performance of the fill.
  - v) Contingency if water quality in vaults does not meet water quality criteria (e.g., additional treatment, other source, flocculation, coalescing oil water separator, etc.).
  - vi) Instream biologic monitoring shall occur in Des Moines, Miller and Walker Creeks to assess the impacts of the Port's low flow offset proposal. The Port shall develop an instream monitoring protocol that shall at a minimum include the following elements:
    - Existing low-flow conditions of Des Moines, Miller and Walker Creek will be evaluated by conducting Benthic Index of Biotic Integrity (BIBI) monitoring (Karr and Chu 1999). Monitoring shall occur four times per year and shall continue through year five (5) after construction and then yearly until completion of the fifteen (15)-year monitoring period. In addition to the BIBI monitoring required above, the Port shall develop a that monitors at a minimum temperature, turbidity, channel morphology, substrate quality, type and amount of large woody debris and other habitat features, riparian habitat cover and fish use. Representative stream channel cross-sections shall be utilized. Information must be synthesized to determine how these elements may be impacting overall stream health.
    - Mitigation during the proposed period appears to effect low flow frequencies during June and July. Monitoring shall specifically address potential adverse impacts to fish or aquatic biota during June and July. If monitoring shows an adverse effect during this time period the Port shall implement contingencies to address the impact (such as providing additional mitigation water during June and July).

**J. Operational Stormwater Requirements:**

1. Approved Stormwater Plan: The Comprehensive Stormwater Management Plan (CSMP), Volumes 1 through 4, December 2000 as revised by the July



2001 Replacement pages is the approved stormwater management plan for this project. It shall be implemented in its entirety. No changes to the shall be made without prior review and written approval from Ecology.

a) The Port shall provide Ecology with draft proposed changes to the Plan no later than 60 days prior to the date it seeks to implement a change to the .

b) The Port shall implement the project in accordance with the schedule provided in Table A-3 (July 2001). Any changes to the schedule must be reviewed and approved in advance by Ecology. The Port shall provide Ecology with a draft revised schedule no later than 60 days prior to the date it seeks to implement the change to the schedule. The following facilities/projects listed in Table A-3 (July 2001) do not yet have approved stormwater treatment facilities, proposed: expansion of NEPL to 6000 stalls, additional taxiway exits on 16L/34R, additional expansion of main parking garage, additional expansion of NEPL, expansion of North Unit parking structure, SR 509 extension/South Access, ASDE, and NAVAIDS. If the Port decides to build any of these facilities/projects the Port must submit conceptual drawings that meet the performance standards of the CSMP to Ecology no later than sixty (60) days prior to the date it seeks to commence construction.

c) Retrofitting of stormwater management facilities at the STIA shall occur at a rate commensurate with the construction of new impervious surface at the STIA. For every ten (10) percent of new impervious surface added at the project site, the Port must demonstrate that twenty (20) percent of retrofitting has occurred unless demonstrated that a twenty (20) percent rate isn't feasible. The Port shall document the implementation of retrofitting in quarterly progress reports. The Port shall develop and submit for review and written approval a schedule of construction of stormwater management facilities within 60 days after receipt of the Section 404 permit from the U.S. Army Corps of Engineers.

d) Nothing in this Order shall be deemed to prohibit continued participation by the Port in planning efforts to establish regional detention facilities for Des Moines or Miller Creek. The Port may request to amend this Order and the Comprehensive Stormwater Management Plan if it decides to route stormwater to future regional detention facilities and it is demonstrated that under future build-out conditions the combination of on-site and regional flow controls will achieve the performance goals of the CSMP and the corresponding basin plan. If the Port decides to participate in future regional detention facilities, the Port shall submit documentation to Ecology that substantiates that Regional Detention Facilities will be constructed and that

the Port may legally route stormwater to a RDF before Ecology will allow a change to the CSMP.

2. Discharge of operational stormwater to state receiving waters:

a) No stormwater generated by operation of the facilities approved by this Order shall be discharged to state receiving waters until a Water Effects Ratio Study (WERS) has been completed and approved by Ecology and appropriate limitations and monitoring requirements have been established in the Port's NPDES permit. A WERS shall be submitted to Ecology for review and written approval. The Port shall consult with Ecology's Northwest Regional Office Water Quality Program's SeaTac NPDES Manager to determine an appropriate time for submittal of the WERS.

b) All stormwater discharges from the project shall be in compliance with state of Washington surface water quality standards (Chapter 173-201A WAC), sediment management standards (Chapter 173-204 WAC) and ground water quality standards (Chapter 173-200 WAC).

c) The Port shall design, construct, operate, and maintain stormwater treatment facilities to ensure that discharges shall not result in exceedances of state water quality criteria in receiving waters. Ecology may require changes to the approved CSMP as a part of future NPDES permits.

d) If monitoring indicates a need for additional BMPs, the Port may propose other BMPs for stormwater treatment if it can be demonstrated that they will result in stormwater discharges that meet the state water quality standards. Any proposed changes are subject to review and written approval by Ecology.

e) The Port shall submit the final stormwater treatment and flow control facility designs to Ecology for review and written approval 60 days prior to the start of construction of the facilities. During final design the Port shall evaluate the likelihood that stormwater facilities will intercept groundwater and make modifications to the designs so as to either prevent the interception of groundwater or increase facility sizing to accommodate the groundwater. If facility sizes increase the Port shall evaluate potential impacts to wetlands and other waters of the state and whether the increase facility size triggers Dam Safety requirements under Chapter 173-175 WAC.

f) Within 180 days of issuance of this Order the Port shall submit to Ecology for review and written approval a Stormwater Facilities Operation and Maintenance Plan which addresses maintenance and operation of all STIA stormwater facilities approved by this Order. For the purpose of meeting this condition the Port may

submit other existing documents or updates of other existing documents that meet this requirement. The Port shall identify methods to prevent overtopping of stormwater facilities and the Industrial Wastewater Treatment System to streams during storm events.

**K. Construction Stormwater Limitations and Monitoring Requirements:**

1. Stormwater Pollution Prevention Plans shall be prepared in conformity with the Construction Stormwater/Dewatering requirements the NPDES permit.

2. Limitations

Stormwater discharges shall not cause a visible change in turbidity, color, or cause a visible oil sheen in the receiving water or any stormwater detention or retention pond.

3. Stormwater Monitoring Schedule for Construction Stormwater Discharges

The Port shall monitor each stormwater outfall discharge according to the following schedule:

- a) Turbidity and pH:

- i) The Port shall monitor turbidity and pH in any surface water discharge from construction sites within 24 hours after any storm event of greater than 0.5 inches of rain per 24-hour period. The storm events shall be measured by an on-site rain gauge. The monitoring method shall be by a portable turbidimeter and a pH meter following the maintenance, operating and calibration procedures in the instrument's instruction manual. Alternatively, a grab sample shall be analyzed by a laboratory accredited under the provisions of Accreditation of Environmental Laboratories, Chapter 173-50 WAC.
- ii) During each rain event the turbidimeter and pH meter shall also be used for the measurement of turbidity and pH upstream of the point of discharge to the receiving water and downstream of the thorough mixing of the discharge and the receiving water.

- b) Oil, Grease and Temperature:

- i) The Port shall sample for oil, grease and temperature as follows:

Parameter	Units	Sample Point <sup>1</sup>	Minimum Sampling Frequency	Sample Type
Oil and Grease	Mg/l	Point of Discharge	When visible sheen observed	grab
Temperature	°C	Upstream <sup>2</sup> and downstream at the edge of the mixing zone (no greater than 100 feet)	Weekly <sup>3</sup>	grab

<sup>1</sup>Samples shall be collected from the outfall or an on-line stormwater drain access point nearest the outfall terminus.

<sup>2</sup> Background temperature measured at a point or points unaffected by the discharge and representative of the highest ambient water temperature in the vicinity of the discharge.

<sup>3</sup> During the months of July, August, and September

ii) Sampling method for Oil and Grease: The MDL for oil and grease is 0.2 mg/L using trichlorotrifluoroethane extraction and gravimetric analysis using EPA Method 413.1. The quantitation level (QL) for oil and grease is 1.0 mg/L (5 x MDL). An equivalent method is Method 1664 using normal hexane (n-hexane) as the extraction solvent in place of 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113; Freon-113). An equivalent method is total petroleum hydrocarbons with a MDL of 0.1 mg/L using Gas Chromatography and Flame Ionization Detector (FID) and Method WTPH-Dx Diesel (WTPH-D) from the Washington State Department of Ecology Method WTPH-D. The quantitation level (QL) for TPH-Dx is 0.5 mg/L (5 x MDL).

c. If monitoring indicates a need for additional BMPs, the Port may propose other BMPs for stormwater treatment if it can be demonstrated that they will result in stormwater discharges that meet the state water quality standards. Any proposed changes are subject to review and written approval by Ecology.

4. Stormwater Detention for New Outfalls

Any new diversion ditch or channel, pond, trap, impoundment or other detention or retention BMP constructed at the site for treatment of stormwater shall be designed, constructed, and maintained to contain and provide treatment for the peak flow for the ten (10) year 24 hour precipitation event estimated from data published by the National Oceanic and Atmospheric Administration.

5. Vehicle Trackout

Vehicles shall be cleaned of mud, rock, and other material before entering a paved public highway so that tracking of sediment onto the highway does not occur.

6. Reporting - Construction stormwater

Monitoring results for construction stormwater discharges shall be submitted every other month to Ecology's Federal Permit Manager, SeaTac Third Runway. Monitoring shall be reviewed for compliance with WAC 173-201A.

7. The Port shall document the use of any additives in the treatment of discharge water. Documentation shall identify the additives used, their commercial source, the material safety data sheet, and the appropriate application rate. The Port shall retain this information on-site or within reasonable access to the site and make it immediately available, upon request, to Ecology.

Additives to enhance solids settling before discharge to surface water must be applied according to the manufacturer's recommended dose. In addition, only additives of low toxicity to aquatic organisms, an  $LC_{50}$  equal to or greater than 100 mg/l, shall be used. The use of additives to enhance settling before discharge to surface water will not be allowed if the toxicity to aquatic organisms is not known.

8. In addition to the above, the Port shall submit a monitoring plan for stormwater and construction dewatering discharges from all construction projects including grading and construction of the Auburn mitigation site. The monitoring plan shall be submitted to Ecology for review and written approval at least thirty (30) days prior to the start of construction.

**L. Emergency/Contingency Requirements:**

1. The Port shall develop a spill prevention and containment plan for all aspects of this project, and shall have spill cleanup materials available on site.
2. Any work that is out of compliance with the provisions of this Order, causes distress death of fish, or any discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, is prohibited. If these occur, the Port shall immediately take the following actions:
  - a) Cease operations at the location of the violation.
  - b) Assess the cause of the water quality problem and take appropriate measures to correct the problem and/or prevent further environmental damage.
  - c) Notify Ecology of the failure to comply. Spill events shall be reported immediately to Ecology's 24-Hour Spill Response Team at 425-649-7000, and

within 24 hours of other events contact Ecology's Federal Permit Manager, SeaTac Third Runway at 425-649-4310.

d) Submit a detailed written report to Ecology within five days that describes the nature of the event, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of any samples taken, and any other pertinent information.

Compliance with these requirements does not relieve the Port from responsibility to maintain continuous compliance with the terms and conditions of this Order or the resulting liability from failure to comply.

3. In the event of finding distressed, dying or dead fish, the Port shall collect fish specimens and water samples in the affected area, within the first hour of the event. These samples shall be held in refrigeration or on ice until the Port is instructed by Ecology on their disposition. Ecology may require analyses of these samples before allowing the work to resume.
4. In the event of a discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, containment and cleanup efforts shall begin immediately and be completed as soon as possible, taking precedence over normal work. Cleanup shall include proper disposal of any spilled material and used cleanup materials.
5. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., shall be checked regularly for drips or leaks, and shall be maintained and stored properly to prevent spills into state waters.
6. If at any time during work the Port finds buried chemical containers, such as drums, or any unusual conditions indicating disposal of chemicals, the Port shall immediately notify the Ecology's NWRO Regional Spill Response Office at 425-649-7000.

**M. General Conditions:**

1. This Order does not authorize direct, indirect, permanent, or temporary impacts to waters of the state or related aquatic resources, except as specifically provided for in conditions of this Order.
2. This Order does not exempt and is conditional upon compliance with other statutes and codes administered by federal, state, and local agencies.
3. Ecology retains continuing jurisdiction to make modifications hereto through supplemental Order, if it appears necessary to further protect the public interest.

4. The Port shall have a designee on-site, or on-call and readily accessible to the site, at all times while construction activities are occurring that may affect the quality of ground and surface waters of the state, including all periods of construction activities.
5. The Port's designee shall have adequate authority to ensure proper implementation of the Erosion and Sediment Control (ESC) Plan, as well as immediate corrective actions necessary because of changing field conditions. If the Port's designee issues a directive necessary to implement a portion of the ESC Plan or to prevent pollution to waters of the state, all personnel on site, including the construction contractor and the contractor's employees, shall immediately comply with this directive.
6. The Port shall provide access to the project site and all mitigation sites by Ecology or WDFW personnel for site inspections, monitoring, necessary data collection, or to ensure that conditions of this Order are being met.
7. Copies of this Order and all related permits, approvals, and documents shall be kept on the project site and readily available for reference by the project managers, construction managers and foremen, other employees and contractors of the Port, and state agency personnel.
8. The Port shall comply with all provisions of any Hydraulic Project Approval issued by the Washington Department of Fish and Wildlife. Work in or near the water that may affect fish migration, spawning, or rearing shall cease immediately upon a determination by WDFW that fisheries resources may be adversely affected.

**N. Violations of the Order:**

Any person who fails to comply with any provision of this Order shall be liable for a penalty of up to ten thousand dollars (\$10,000) per violation for each day of continuing noncompliance. Violations of this Order shall be addressed in accordance with the requirements of RCW 90.42 and RCW 43.21B. Upon Ecology's determination that the Port is violating any condition of this Order, it shall serve notice of the violation to the Port by registered mail.

**O. Appeal process:**

Any person aggrieved by this Order may obtain review thereof by appeal. The Port can appeal up to 30 days after receipt of the permit, and all others can appeal up to 30 days from the postmarked date of the permit. The appeal must be sent to the Washington Pollution Control Hearings Board, PO Box 40903, Olympia, WA 98504-0903. Concurrently, a copy of the appeal must be sent to the Department of Ecology, Northwest Regional Office, Shorelands and Environmental Assistance Program, Attn: Ann Kenny,

Water Quality Certification #1996-4-02325

Page 32 of 32

August 10, 2001

3190 160<sup>th</sup> Avenue SE, Bellevue, WA 98008-5452. These procedures are consistent with the provisions of Chapter 43.21B RCW and the rules and regulations adopted thereunder.

Dated August 10, 2001 at Olympia, Washington.

Gordon White

Gordon White, Program Manager  
Shorelands and Environmental Assistance Program

AR 008608



Water Quality Certification # 1996-4-02325  
August 10, 2001

**Attachment A: Contractor Statement**

PROJECT: Port of Seattle Third Runway & Master Plan Update Projects

I have read the Water Quality Certification/Coastal Zone Consistency Determination/Section 401 Permit (Order #1996-4-02325) and the National Pollutant Discharge Elimination System (NPDES) Permit for the above referenced project and, to the best of my ability, understand the requirements of those permits as they relate to those portions of the work that are being conducted under my supervision.

---

Name (Signature)

---

Name (Printed)

---

Title

---

Company or Organization

AR 008609

**Attachment B: NRMP Plan Set Revisions**

**Appendix A – Miller Creek Relocation and Floodplain Enhancement**

Sheet C3: Note 13. Provide revised sheet showing design of irrigation system and discuss irrigation plan in NRMP (timing, amounts of water, etc.).

Sheet C4: Provide revised sheet C4 showing no work in streams. Provide revised Grading plan C-129 showing no work in streams.

Sheet C7: Provide revised sheet with note detailing how woody debris will be anchored using cable or hemp.

On the swale section provide revised sheet showing that swale area will be seeded.

Sheet C-8: Provide revised sheet that shows steel anchors for all the logs in the stream channel with note that hemp rope anchors are expected to remain in place for 3-5 years.

Sheet TE1: Provide revised sheet with note on how the ditches will be blocked to prevent sediment migration.

Provide schedule or table that shows the sequence in which the different elements of the mitigation will be installed. (This applies to the Auburn site as well.)

Sheet L2: Revise sheet to show how young plants will be protected from sun exposure until they are well enough established to withstand exposure to the sun.

Revise Note 6 to state that except where needed to protect roots of conifers, care must be taken not to seed mulch collars.

Revise sheet to remove staking notes and details from sheet.

**Appendix B – Miller Creek In-stream and Buffer Enhancements**

Sheet C3: Revise sheet to show construction access points and add a note to the plans to minimize wetland and stream impacts. Provide note detailing how access points will be restored.

Sheet C4: Note 5. Add note to see sheet TE2 and add more details detailing how the channel will be de-watered during re-grading.

Sheet C5: Provide revised sheet if log orientation at 42+00 changes.

Note 2. Provide revised sheet with note. Discuss disposal of solid wastes in text of NRMP or in an Appendix. Provide information on how hazardous materials will be managed if discovered during the course of constructing the mitigation site.

Sheet C7: Provide revised sheet with note that details how project areas will be accessed. Also provide details on how access locations will be restored after the work has been completed.

Sheet C8: On Section 2, the coir lift is shown on the section but is not present on the plan. Provide revised sheet.

On Section 3, the logs on the plan view are not present on the section.  
Provide revised sheet.

On Section 5, the log shown on the plan view is not present on the section. The coir lift shown on the section is not shown on the plan.  
Provide revised sheet.

On Section 6, the log shown on the plan view is not present on the section.  
Provide revised sheet.

Sheet C9: In typical detail of coir fabric lifts, develop a specification for the quantity of willow cutting. Provide revised sheet.

Sheet C10: Provide revised sheet and include note on sheet that indicates that the geotextile fabric will be biodegradable. If this is discussed in text, then text must become part of final plan set.

Sheets TE1-TE4: Provide revised sheets adding note in notes section that states that equipment should not be driven in the streambed except where necessary to complete construction.

Sheet TE2: Provide revised sheet showing details for stream diversion structure and flow dispersion structure.

Provide revised sheet showing detail for the flexible by-pass pipe. Note that pipe should not be trenched in.

Indicate on plan sheet direction of sump discharge water with note that it is pumped to a treatment pond. Provide specific pond. Provide revised sheet.

Sheet TE5: On the live stake detail, specify the density of staking (inches on center).  
Provide revised sheet.

Sheet L1.1: Provide revised sheet with note that says that if S. 157<sup>th</sup> Place is determined not to be needed for access purposes it will be revegetated.

Sheet L2: Provide revised sheet with note that says that if S. 160<sup>th</sup> Street is not needed for access it will be revegetated.

Sheet L3: It is unclear how much of this area will be cleared.  
Provide revised sheet with correct cross-hatching in wetland.

Sheet L5: Clarify why some of Wetland R11 shown as revegetated and others are not. Provide revised sheet with note indicating that the Corps of Engineers is requiring that the sewer easement will not be revegetated.

Provide revised sheet correcting hatching error for the replacement drainage channels buffer areas that will be graded. This area should be in darker (cleared and revegetated areas) hatch.

Sheet L5.1: Provide revised sheet with note that says that if 8<sup>th</sup> Avenue South is not needed for access it will be revegetated.

Sheet L5.2: Provide revised sheet with note indicating that any irrigation installed in the field shall be shown on the As-Built Report.

Sheet L6: Areas that are cleared and revegetated should be planted at a higher density than enhancement areas. Densities or quantities should be stated on the plan. A performance standard of 280 trees per acre is proposed for the buffer. In cases where some forest vegetation is present, the Port shall supplement the existing trees with enhancement plantings to achieve this density. Clarify in NRMP how survival monitoring will be performed in these areas to differentiate these two types of areas.

Provide revised plan detail/notes to allow for use of phased planting in areas that lack suitable shade or soil moisture. Discuss in text of NRMP.

On tree planting and staking detail, the plan needs to state when the stakes will be removed. If it is determined that staking is not necessary then remove the stake details. Provide revised sheet.

Sheet P2: Provide revised sheet showing approximate locations of the sandbags and the abutments to be removed. Provide note on TESC controls that will be in place for the timber removal in order to minimize sediment mobilization.

#### **Appendix D – Replacement Drainage Channels and Restoration of Temporarily Impacted Wetlands**

Sheet C3: Clarify how hydrologic support will be provided to Wetland 11 and Wetland 9 after construction.

Sheet C5: Provide revised plan sheet with details regarding flow spreaders and spalls.

Sheet C6: Provide revised sheet clarifying whether the dark hatched area in the vicinity of Wetlands R9a, R10, R11, A10, and A11 will be graded and revegetated.

Sheet C7: Show how will water get to Wetland 44a if the TESC channel is removed.

Show flow monitoring locations on the stormwater management plan.

Sheet C8: Clarify how the drainage channel discharge structure controls flow to the wetland. Address how often these structures will be monitored and how modifications be made if a problem is identified. Provide information in note on revised sheet.

Sheet L1: Provide revised sheet to allow for phased planting to provide shading for western red cedar and the western hemlock.

**Appendix E – Auburn Wetland Mitigation**

Sheet C5: Provide revised sheet with note saying that if hummocks remain in place options for removing reed canary grass will be evaluated.

The Sheet C6 grading plan shows proposed contours for re-grading the SW portion of the mitigation site. These contours do not continue onto Sheet C5. Provide revised sheet.

Sheet C8: Provide revised sheet with a note added to the plans to include culverts at the low spots if needed to eliminate ponding.

On Section 3, design to ensure the perforated pipes do not sink into the substrate and become blocked.

Sheet TE1: There is no discussion on dewatering except in the NRMP text on page 7-50. Sheet C2 (Appendix E) shows the discharge point located along a ditch, which is slated to be recontoured. Provide revised sheet with additional details to manage potential erosion and amend text in NRMP if necessary.

If it is determined that Area 1 should have a sedimentation pond submit revised sheet showing the pond.

Page 7-47 of the text discusses major construction activities limited to a period from October 31 to March 31 to avoid winter bald eagles. Provide revised sheet correcting error regarding construction window to avoid winter bald eagles.

Sheets L7 and L8: Provide revised sheets to show plant pattern layout areas for each phase.

Sheet L9: Provide revised sheet with a note added to the plans so that ponded areas or areas that are anticipated to be ponded shortly after planting will be planted with plugs representative of the seed mix specified. Add Hydro seeding specifications.

Revised Auburn Grading Plan (June 28, 2001):

1. The revised grading plan (June 28, 2001) shows a culvert in the northwest corner of the site in the proposed new drainage swale. The culvert will pass flows under the site access path. The drawing shows this culvert approximately 60 feet long, passing under a path that is only approximately 15 feet wide. This culvert should be no longer than is necessary to pass the water under this pathway.
2. The revised grading plan (June 28, 2001) shows a culvert in the south central portion of the mitigation site. This culvert appears to be mis-located. It appears that the culvert should be shown in the wetland directly east of the shown location, where the wetland passes under the

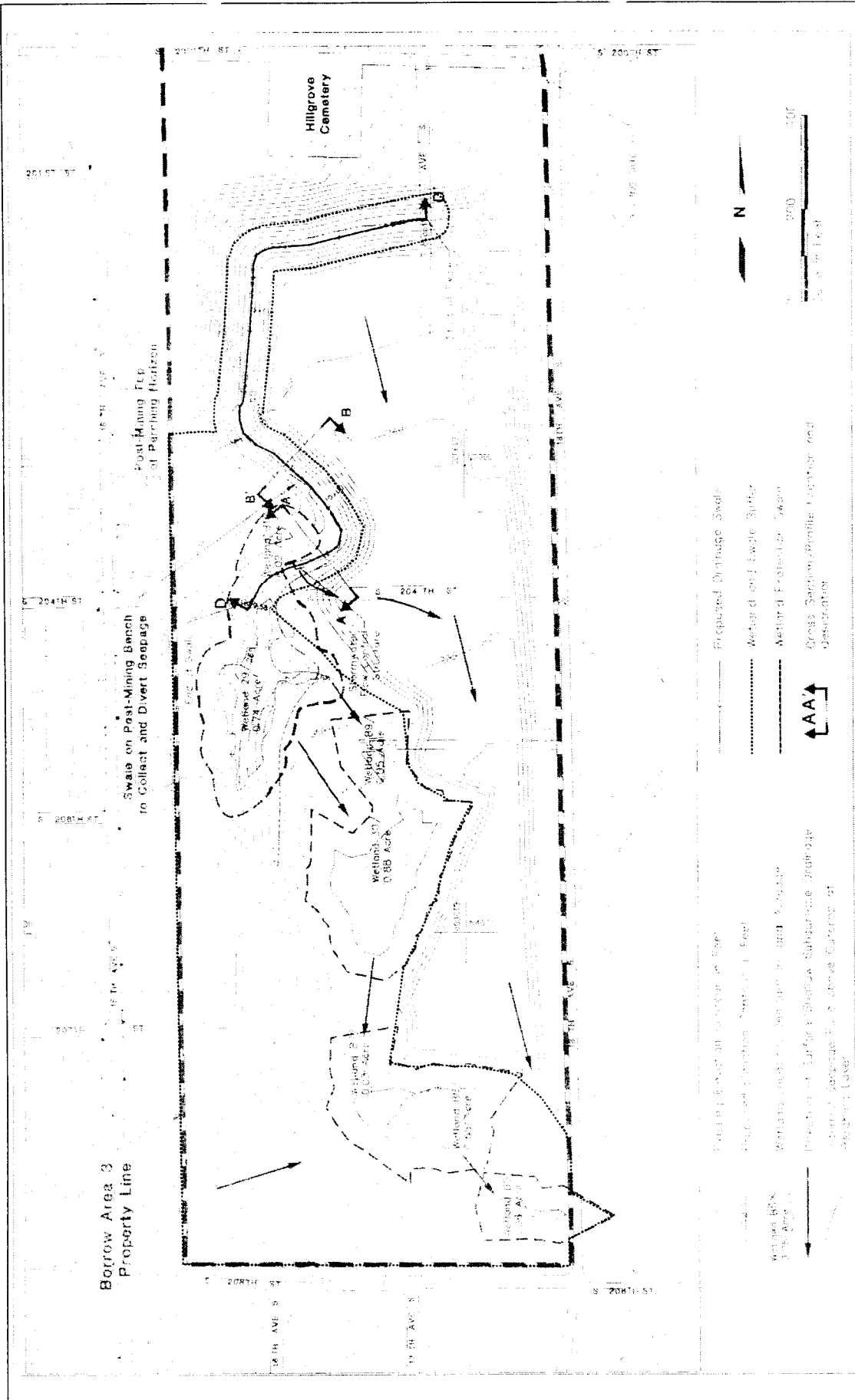
proposed maintenance path. This culvert should be no longer than is necessary to pass the water under this pathway.

3. Two additional culverts need to be shown along the new drainage swale where the water outlets the southwestern basin, under the maintenance pathway.
4. Culverts should be placed during construction under the paths/roads in all areas where there is a potential for impounding water. A note should be added on the construction documents.
5. Provide revised grading plan that addresses items 1 through 4 above.



# ATTACHMENT D

## Borrow Area 3 Wetland and Swale Buffer







October 25, 2000

RECEIVED

OCT 30 2000

DEPT OF ECOLOGY

Jonathan Freedman  
Regulatory Branch, Seattle District  
U.S. Army Corps of Engineers  
P.O. Box 3755  
Seattle, WA 98124-2255

RE: Clean Water Act Section 404 Permit for Master Plan Update Projects, Seattle-Tacoma  
International Airport (Corps of Engineers Project No. 96-4-02325)

Dear Jonathan:

Recently, in response to a request from the Washington Department of Ecology for additional time with regard to its Clean Water Act (CWA) section 401 certification, the Port of Seattle agreed to withdraw and resubmit its CWA section 404 permit application to the U.S. Army Corps of Engineers. Enclosed is the Port's new Joint Aquatic Resources Permit Application (JARPA) that the Port is hereby submitting to the Corp.

Please feel free to contact me at (206) 433-7203 if you have questions concerning this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Leavitt", with a stylized flourish at the end.

Elizabeth M. Leavitt  
Manager, Aviation Environmental Programs

Cc w/encl:

Ray Hellwig, Department of Ecology (3 copies)  
Phil Schneider, Department of Fish & Wildlife  
Lee Daneker, Environmental Protection Agency  
Dennis Ossenkop, Federal Aviation Administration  
Paul Krauss, City of Auburn

Seattle-Tacoma  
International Airport  
P.O. Box 68727  
Seattle, WA 98168 U.S.A.  
TELEX 703433  
FAX (206) 431-5912



AR 008617

# AGENCY USE ONLY

Agency Reference #:

Date Received:

Circulated by:

(local govt. or agency)

## JOINT AQUATIC RESOURCES PERMIT APPLICATION FORM (JARPA)

(for use in Washington State)

**PLEASE TYPE OR PRINT IN BLACK INK**



- ☐ I am applying for a Fish Habitat Enhancement Project per requirements of RCW 75.20.350. You must submit a copy of this completed JARPA application form, and the (Fish Habitat Enhancement JARPA Addition) to your local Government Planning Department and Washington Department of Fish & Wildlife Area Habitat Biologist on the same day.  
**NOTE: LOCAL GOVERNMENTS – You must submit any comments on these projects to WDFW within 15 working days.**

Based on the instructions provided, I am sending copies of this application to the following: (check all that apply)

- ☐ Local Government for shoreline: ☐ Substantial Development ☐ Conditional Use ☐ Variance ☐ Exemption ☐ Revision  
☐ Floodplain Management ☐ Critical Areas Ordinance  
☒ Washington Department of Fish and Wildlife for HPA (Submit 3 copies to WDFW Region)  
☐ Washington Department of Ecology for 401 Water Quality Certification Nationwide Permits (to Regional office-Federal Permit Unit)  
☐ Washington Department of Natural Resources for Aquatic Resources Use Authorization Notification  
☒ Corps of Engineers for: ☒ Section 404 ☐ Section 10 permit  
☐ Coast Guard for Section 9 Bridge Permit  
☒ US Fish & Wildlife Service or National Marine Fisheries Service for Endangered Species Act (ESA) Consultation

**SECTION A - Use for all permits covered by this application. Be sure to ALSO complete Section C (Signature Block) for all permit applications.**

### 1. APPLICANT

Port of Seattle c/o Elizabeth Leavitt

#### MAILING ADDRESS

17900 International Blvd., Suite 402, Seattle-Tacoma International Airport, SeaTac, Washington 98188-4236

#### WORK PHONE

206 433 7203

#### E-MAIL ADDRESS

Leavitt.e@portseattle.org

#### HOME PHONE

#### FAX #

206 988 5636

**If an agent is acting for the applicant during the permit process, complete #2.**

### 2. AUTHORIZED AGENT

#### MAILING ADDRESS

#### WORK PHONE

#### E-MAIL ADDRESS

#### HOME PHONE

#### FAX #

3. RELATIONSHIP OF APPLICANT TO PROPERTY: ☒ OWNER ☒ PURCHASER ☐ LESSEE ☒ OTHER: See Box 4

4. NAME, ADDRESS, AND PHONE NUMBER OF PROPERTY OWNER(S), IF OTHER THAN APPLICANT:

See Attachment A. The applicant owns property where wetland filling for construction of Master Plan Projects will occur. Properties subject to mitigation are owned by the applicant, or, in the case of several parcels, subject to on-going negotiations for purchase.

5. LOCATION (STREET ADDRESS, INCLUDING CITY, COUNTY AND ZIP CODE, WHERE PROPOSED ACTIVITY EXISTS OR WILL OCCUR): Activity will occur at 2 general locations:

a) Master Plan Update projects and mitigation sites in the cities of SeaTac and Des Moines, King County; and

b) An off-site wetland mitigation site in the City of Auburn, King County.

LOCAL GOVERNMENT WITH JURISDICTION (CITY OR COUNTY) a) City of SeaTac (subject to conditions of inter-local agreements),  
b) City of Auburn

AR 008618

<b>WATERBODY</b> a) Miller Creek, Walker Creek, Des Moines Creek, and Gilliam Creek b) Green River and adjacent wetlands					<b>TRIBUTARY OF</b> a) Puget Sound b) Green River, Puget Sound	<b>WRIA #</b> a & b WRIA 9
<b>¼ SECTION</b> See Attachment B	<b>SECTION</b> See Attachment B	<b>TOWNSHIP</b> See Attachment B	<b>RANGE</b> See Attachment B	<b>GOVERNMENT LOT</b>	<b>SHORELINE DESIGNATION</b> a) N/A b) Green River: Conservancy	
a) <b>LATITUDE &amp; LONGITUDE IF KNOWN:</b> a) Approximately Lat 47° 26' 36", Long 122° 18' 1" b) Approximately Lat 47° 21' 00", Long 122° 12' 30"					<b>ZONING DESIGNATION</b> a) Airport operations; Residential b) R2	
<b>TAX PARCEL NO:</b> See Attachment C					<b>DNR STREAM TYPE, IF KNOWN</b> a) Miller, Walker, Des Moines, and Gilliam Creeks are all Type 3 b) Type 1 (Green River)	

6. DESCRIBE THE CURRENT USE OF THE PROPERTY, AND STRUCTURES EXISTING ON THE PROPERTY. IF ANY PORTION OF THE PROPOSED ACTIVITY IS ALREADY COMPLETED ON THIS PROPERTY, INDICATE MONTH AND YEAR OF COMPLETION.

a) Seattle Tacoma International Airport – Property consists of abandoned residential neighborhoods, a golf course, farmland, and airport-related development. Structures on the site include airport facilities, single-family houses, garages, etc. Demolition of structures (houses, garages) has occurred and is ongoing. Placement of embankment fill in non-wetland areas has occurred since 1998, and is ongoing. Some access roads and a stormwater treatment facility have been constructed in non-wetland areas. On-going preparation of sites for contractor staging areas is also occurring in upland locations. Some of the taxiways that connect the proposed runway to the existing airfield were completed in 1999. The North Employee Parking Lot was constructed in 1998. Terminal improvements are ongoing.

b) Auburn – The site is abandoned agricultural land. No structures are located on the property. Shallow groundwater monitoring wells have been installed since 1995.

7a. DESCRIBE THE PROPOSED CONSTRUCTION AND/OR FILL WORK FOR THE PROJECT THAT YOU WANT TO BUILD THAT NEEDS AQUATIC PERMITS: COMPLETE PLANS AND SPECIFICATIONS SHOULD BE PROVIDED FOR ALL WORK WATERWARD OF THE ORDINARY HIGH WATER MARK OR LINE, INCLUDING TYPES OF EQUIPMENT TO BE USED. IF APPLYING FOR A SHORELINE PERMIT, DESCRIBE ALL WORK WITHIN AND BEYOND 200 FEET OF THE ORDINARY HIGH WATER MARK. ATTACH A SEPARATE SHEET IF ADDITIONAL SPACE IS NEEDED.

The proposed work includes Master Plan Update projects, as well as on-site and off-site compensatory wetland mitigation projects. These projects are described in the Final Supplemental EIS (1997), as well as in the *Stormwater Management Plan* (2000), the *Natural Resource Mitigation Plan* (1999), the *Revised Implementation Addendum* to the Mitigation Plan (2000), and the *Biological Assessment* (2000).

7b. DESCRIBE THE PURPOSE OF THE PROPOSED WORK AND WHY YOU WANT OR NEED TO PERFORM IT AT THE SITE. PLEASE EXPLAIN ANY SPECIFIC NEEDS THAT HAVE INFLUENCED THE DESIGN.

a) Please see Chapter 1 of the Final Environmental Impact Statement (FEIS) (FAA 1996), Chapter 2 of the Final Supplemental Environmental Impact Statement (FSEIS) (FAA 1997), and the 36 sheets (attached). In response to growth forecasts for passenger and cargo volumes at Seattle-Tacoma International Airport (STIA), a variety of facility improvements are planned to meet travel demands in the Puget Sound Region and to reduce the aircraft arrival delays during poor weather. These improvements were developed through a master planning process, then later updated as growth forecasts. Some of the planned improvements will cause unavoidable impacts to wetlands, streams, floodplain, and drainage channels, located near the airport. The mitigation actions described in this plan will be implemented upon receipt of and according to any special conditions of Clean Water Act (CWA) Section 404 Permit approval and Section 401 Water Quality Certification (WQC).

As currently configured, STIA is unable to efficiently meet existing and future regional air travel demands. The airfield operates inefficiently during poor weather because it accommodates aircraft in a single arrival stream only. As a result, significant arrival delay occurs during poor weather. Aircraft are either held on the ground in their originating city, slowed en route, or they are placed in holding patterns to await clearance to land at STIA. These conditions result in the inefficient operation of the existing airfield, as described in Chapter 1 of the FEIS (FAA 1996).

Before and during preparation of the proposed Master Plan Update, regional officials identified the following needs for STIA:

- Improve the poor weather airfield operating capability (over 85 percent of total STIA delays are incurred by aircraft arriving during poor weather).
- Provide sufficient runway length to accommodate warm weather operations and payloads for aircraft types operating to the Pacific Rim.
- Provide Runway Safety Areas (RSAs) that meet FAA standards.

1.

- Provide efficient and flexible land facilities to accommodate future aviation demand

A third parallel runway, located 2,500 ft west of existing 16R/34L runway, would permit staggered dual-stream arrivals in poor weather conditions. It would decrease average arrival delays and result in substantial reductions in delay costs.

The Master Plan Update improvements include construction activities that fill approximately 18.37 acres of wetlands in the Miller Creek and Des Moines Creek watersheds. Elements of the project that will result in wetland, floodplain, stream, and drainage channel impacts include the following:

- Adding an 8,500-ft-long third parallel runway (16X/34X) with associated taxiway and navigational aids
- Establishing standard RSAs for existing Runways 16R/34L and 16L/34R
- Relocating S 154<sup>th</sup> St. north of extended RSAs and the new third runway
- Developing the South Aviation Support Area (SASA) for cargo and/or maintenance facilities
- Using on-site borrow sources for the third runway embankment

b) Mitigation necessary to compensate for potential wetland and stream impacts will alter, enhance, or restore wetlands near the airport and at the Auburn site.

7c. DESCRIBE THE POTENTIAL IMPACTS TO CHARACTERISTIC USES OF THE WATER BODY. THESE USES MAY INCLUDE FISH AND AQUATIC LIFE, WATER QUALITY, WATER SUPPLY, RECREATION, and AESTHETICS. IDENTIFY PROPOSED ACTIONS TO AVOID, MINIMIZE, AND MITIGATE DETRIMENTAL IMPACTS, AND PROVIDE PROPER PROTECTION OF FISH AND AQUATIC LIFE. ATTACH A SEPARATE SHEET IF ADDITIONAL SPACE IS NEEDED.

The Natural Resource Mitigation Plan addresses specific actions to:

- Avoid wetlands.
- Enhance and preserve stream habitat through buffer restoration and habitat enhancement.
- Protect instream habitat functions and aquatic life by managing stormwater quantity and quality.
- Restore on-site wetlands and stream habitat where compatible with airport operations and where restoration will reduce wildlife attractants near the airport.
- Create new, high quality wetlands at an off-site location in compliance with Federal Aviation Administration (FAA) Advisory Circular 150/5200-33.

Wetlands and streams potentially affected by the project are described in the *FEIS* (FAA 1996), *FSEIS* (FAA 1997), and the *Wetland Delineation Report* (Parametrix 1999). Impacts to wetlands and wetland functions are addressed in the *FEIS*, *FSEIS*, *Wetland Functional Assessment and Impact Analysis* (Parametrix 1999), *Natural Resource Mitigation Plan* (Parametrix 1999), and the *Sea-Tac Runway Fill Hydrologic Studies Report* (Ecology 2000). The *FEIS*, the *FSEIS*, and *Natural Resource Mitigation Plan* identify wetland impact avoidance, mitigation sequencing, on-site compensatory mitigation, and off-site compensatory mitigation. Potential stormwater impacts to creek hydrology and water quality are addressed in the *Preliminary Comprehensive Stormwater Management Plan* (Parametrix 2000). The *Biological Assessment* (Parametrix 2000) addresses potential impacts to species protected under the Endangered Species Act.

Potential direct impacts to characteristic uses of the waterbodies include, for wetlands, permanent fill of 18.37 acres of seasonally saturated, palustrine wetlands dominated by emergent, forest, and shrub plant communities. Temporary impacts, occurring during project construction, could potentially impact 2.05 acres of wetland. About 38.34 acres of wetland will be subject to mitigation activities. Without the planned mitigation (enhanced stream buffers, on-site wetland restoration, off-site wetland creation, and other mitigation) the biological and physical functions of these wetlands would be eliminated. For non-wetland Waters of the U.S., 980 linear feet of a previously channelized section of Miller Creek will be relocated. Several ditches and drainage ways that convey ground water and stormwater will be filled by the project. The physical and biological functions of these features are replaced through mitigation.

In-stream enhancement projects result in work below the OHWM of Miller Creek to improve fish habitat. About 1,585 linear feet of in-stream enhancement will occur in 4 locations. This work will involve placement of approximately 58 cubic yards of gravel substrate.

Potential indirect impacts to wetlands and streams from proposed development include alteration of hydrologic regimes, changes in water quality, and disturbance of biological functions. Enhanced stream buffers, on-site wetland restoration, in-stream enhancement projects, and extensive stormwater management are designed to mitigate potential indirect impacts to wetlands and streams.

For all federally listed species that may be present within the action area, the *Biological Assessment* concludes that the projects "may affect" but are "unlikely to adversely affect" listed species. (Note the determination for marbled murrelet was modified from a "no effect" determination by correspondence between FAA and USFWS [August 15, 2000]).

**PREPARATION OF DRAWINGS: SEE SAMPLE DRAWINGS AND GUIDANCE FOR COMPLETING THE DRAWINGS. ONE SET OF ORIGINAL OR GOOD QUALITY REPRODUCIBLE DRAWINGS MUST BE ATTACHED.** NOTE: APPLICANTS ARE ENCOURAGED TO SUBMIT PHOTOGRAPHS OF THE PROJECT SITE, BUT THESE DO NOT SUBSTITUTE FOR DRAWINGS. **THE CORPS OF ENGINEERS AND COAST GUARD REQUIRE DRAWINGS ON 8-1/2 X 11 INCH SHEETS. LARGER DRAWINGS MAY BE REQUIRED BY OTHER AGENCIES.**

8. WILL THE PROJECT BE CONSTRUCTED IN STAGES?

☒ YES ☐ NO

PROPOSED STARTING DATE: Ongoing construction is occurring in non-wetland areas. The overall schedule (which may be revised) is shown in Figure 3-2 of the *Biological Assessment* (June 2000). Wetland filling is proposed to occur in the spring of 2001.

ESTIMATED DURATION OF ACTIVITY: 7-10 years

AR 008620

9. CHECK IF ANY STRUCTURES WILL BE PLACED:

- ☒ WATERWARD OF THE ORDINARY HIGH WATER MARK OR LINE FOR FRESH OR TIDAL WATERS; AND/OR  
☐ WATERWARD OF MEAN HIGH WATER LINE IN TIDAL WATERS

10. WILL FILL MATERIAL (ROCK, FILL, BULKHEAD, OR OTHER MATERIAL) BE PLACED:

- ☒ WATERWARD OF THE ORDINARY HIGH WATER MARK OR LINE FOR FRESH WATERS?  
IF YES, VOLUME (CUBIC YARDS) approximately 58 / AREA 0.10 (ACRES)  
☐ WATERWARD OF THE MEAN HIGHER HIGH WATER FOR TIDAL WATERS?  
IF YES, VOLUME (CUBIC YARDS) \_\_\_\_\_ AREA \_\_\_\_\_ (ACRES)

11. WILL MATERIAL BE PLACED IN WETLANDS?  
IF YES:

☒ YES ☐ NO

A. IMPACTED AREA IN ACRES: 18.37

B. HAS A DELINEATION BEEN COMPLETED? IF YES, PLEASE SUBMIT WITH APPLICATION.

☒ YES ☐ NO

C. HAS A WETLAND REPORT BEEN PREPARED? IF YES, PLEASE SUBMIT WITH APPLICATION.

☒ YES ☐ NO

D. TYPE AND COMPOSITION OF FILL MATERIAL (E.G., SAND, ETC.): a) Engineered fill using various grades of fill material; all fill material will meet criteria agreed to between the Port and the Department of Ecology.  
b) Gravel, crushed road surfacing material, and shoulder ballast. Some organic soil amendments would also be used.

E. MATERIAL SOURCE: a) Various commercial sources and three on-site borrow areas. Trucking is the most likely method for transporting fill material; transport by conveyor belt is also under consideration.  
b) On-site soil, imported compost, bentonite mixtures, and crushed rock materials from commercial sources.

F. LIST ALL SOIL SERIES (TYPE OF SOIL) LOCATED AT THE PROJECT SITE, & INDICATE IF THEY ARE ON THE COUNTY'S LIST OF HYDRIC SOILS. SOILS INFORMATION CAN BE OBTAINED FROM THE NATURAL RESOURCES CONSERVATION SERVICE (NRCS): a) Miller and Des Moines Creek basins: non-hydric soils are Arents, Alderwood, Everett, Indianola;  
hydric soils are Bellingham, Norma, peat soils  
b) Auburn soils are Briscott, Renton, and Oridia

12. WILL PROPOSED ACTIVITY CAUSE FLOODING OR DRAINING OF WETLANDS?  
IF YES, IMPACTED AREA IS <1 ACRES.

☒ YES ☐ NO

The proposed action will not cause draining of wetlands. Restoration of the Vacca farm area will increase the 100-year flood storage capacity in farmed wetlands and prior converted cropland.

13. WILL EXCAVATION OR DREDGING BE REQUIRED IN WATER OR WETLANDS?  
IF YES:

☒ YES ☐ NO

A. VOLUME: unknown (CUBIC YARDS) / AREA: up to 33.40 (ACRES)

a) In wetlands impacted by fill, structurally unsuitable soils will be excavated prior to filling and project construction. Excavation and removal of unsuitable soil materials could occur in up to 18.37 acres of wetland. For the Miller Creek in-stream projects; approximately 84 cu yd of material will be disposed of off-site at an approved upland location. Approx. 15 cu yd will be removed to demolish existing bridge abutments for the relocation of S. 154<sup>th</sup>/S. 156<sup>th</sup> Way bridge. Some of the excavated material will be used to re-contour the pits left from abutment removal, the rest will be disposed of in an approved off-site upland location. Approx. 9,600 cu yd will be excavated to create new 100-year floodplain at Vacca Farm over about 6 acres of wetland and prior converted cropland.  
b) Approx. 10.32 acres of existing wetland will be graded to create new wetlands, access roads, and a maximum of 2.2 acres of wetland could be excavated to enhance the drainage channel to the north of the site. Material will be disposed of at an approved, off-site upland location. Some excavated material (e.g., sands and silts excavated at the Vacca Farm and at the Auburn site) will be mixed with organic material and used as topsoil in the mitigation sites.

B. COMPOSITION OF MATERIAL TO BE REMOVED: peat soils, silt, clay, sand, and gravel.

C. DISPOSAL SITE FOR EXCAVATED MATERIAL: on-site and off-site in non-wetland locations.

D. METHOD OF DREDGING: Excavation will be accomplished with backhoes, hydraulic excavators, bulldozers, or trackhoes.

14. HAS THE STATE ENVIRONMENTAL POLICY ACT (SEPA) BEEN COMPLETED?

☒ YES ☐ NO

SEPA LEAD AGENCY: Port of Seattle SEPA DECISION: DNS, MDNS, EIS, ADOPTION, EXEMPTION

DECISION DATE (END OF PERIOD): SFEIS 5/97

SUBMIT A COPY OF YOUR SEPA DECISION LETTER TO WDFW AS REQUIRED FOR A COMPLETE APPLICATION

AR 008621


15. LIST OTHER APPLICATIONS, APPROVALS, OR CERTIFICATIONS FROM OTHER FEDERAL, STATE OR LOCAL AGENCIES FOR ANY STRUCTURES, CONSTRUCTION, DISCHARGES, OR OTHER ACTIVITIES DESCRIBED IN THE APPLICATION (I.E., PRELIMINARY PLAT APPROVAL, HEALTH DISTRICT APPROVAL, BUILDING PERMIT, SEPA REVIEW, FEDERAL ENERGY REGULATORY COMMISSION LICENSE (FERC), FOREST PRACTICES APPLICATION, ETC.) ALSO INDICATE WHETHER WORK HAS BEEN COMPLETED AND INDICATE ALL EXISTING WORK ON DRAWINGS.

See Attachment D.

**SECTION B - Use for Shoreline and Corps of Engineers permits only:**

17. TOTAL COST OF PROJECT. THIS MEANS THE FAIR MARKET VALUE OF THE PROJECT, INCLUDING MATERIALS, LABOR, MACHINE RENTALS, ETC. \$1.5 - 2.0 Billion		
18. LOCAL GOVERNMENT WITH JURISDICTION: a) City of SeaTac, subject to terms of an inter-local agreement b) City of Auburn		
19. FOR CORPS, COAST GUARD, AND DNR PERMITS, PROVIDE NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF ADJOINING PROPERTY OWNERS, LESSEES, ETC. PLEASE NOTE: SHORELINE MANAGEMENT COMPLIANCE MAY REQUIRE ADDITIONAL NOTICE — CONSULT YOUR LOCAL GOVERNMENT.		
NAME	ADDRESS	PHONE NUMBER
See Attachment E.		

**SECTION C - This section MUST be completed for any permit covered by this application**

20. APPLICATION IS HEREBY MADE FOR A PERMIT OR PERMITS TO AUTHORIZE THE ACTIVITIES DESCRIBED HEREIN. I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THIS APPLICATION, AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, SUCH INFORMATION IS TRUE, COMPLETE, AND ACCURATE. I FURTHER CERTIFY THAT I POSSESS THE AUTHORITY TO UNDERTAKE THE PROPOSED ACTIVITIES. I HEREBY GRANT TO THE AGENCIES TO WHICH THIS APPLICATION IS MADE, THE RIGHT TO ENTER THE ABOVE-DESCRIBED LOCATION TO INSPECT THE PROPOSED, IN-PROGRESS OR COMPLETED WORK. I AGREE TO START WORK <u>ONLY</u> AFTER ALL NECESSARY PERMITS HAVE BEEN RECEIVED.	
SIGNATURE OF APPLICANT OR AUTHORIZED AGENT 	DATE 10-26-00
HEREBY DESIGNATE _____ TO ACT AS MY AGENT IN MATTERS RELATED TO THIS APPLICATION FOR PERMIT(S). I UNDERSTAND THAT IF A FEDERAL PERMIT IS ISSUED, I MUST SIGN THE PERMIT.	
SIGNATURE OF APPLICANT _____	DATE _____
SIGNATURE OF LANDOWNER (EXCEPT PUBLIC ENTITY LANDOWNERS, E.G. DNR) _____	DATE _____
THIS APPLICATION <u>MUST</u> BE SIGNED BY THE APPLICANT AND THE AGENT, IF AN AUTHORIZED AGENT IS DESIGNATED.	

18 U.S.C §1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly falsifies, conceals, or covers up by any trick, scheme, or device a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious, or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than 5 years or both.

AR 008622

**COMPLETED BY LOCAL OFFICIAL**

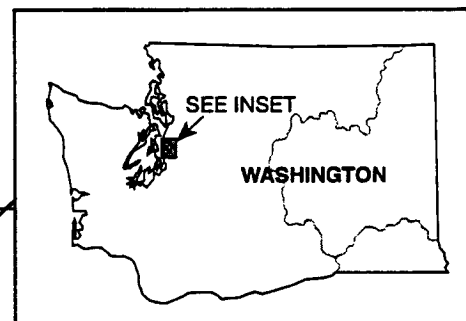
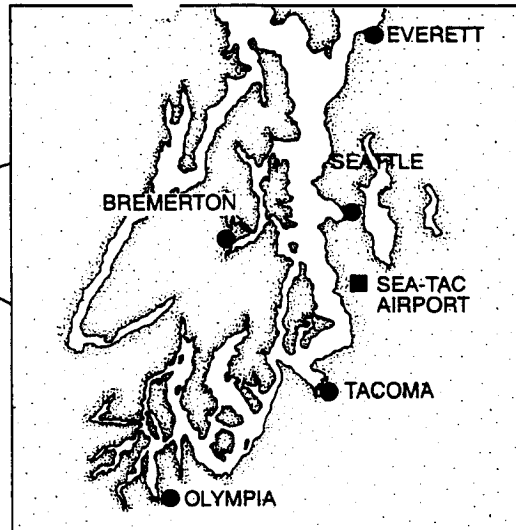
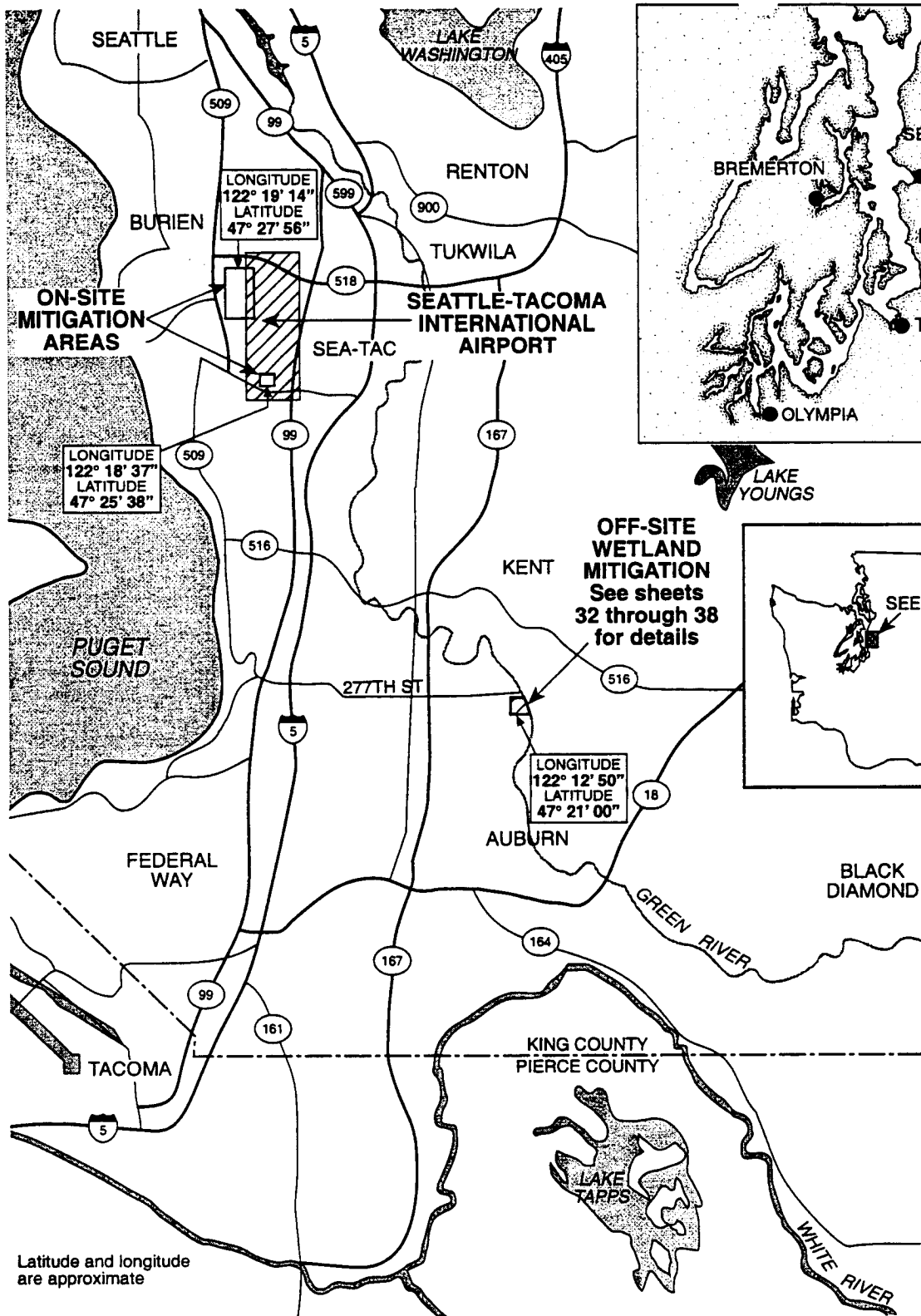
A. Nature of the existing shoreline. (Describe type of shoreline, such as marine, stream, lake, lagoon, marsh, bog, swamp, flood plain, floodway, delta; type of beach, such as accretion, erosion, high bank, low bank, or dike; material such as sand, gravel, mud, clay, rock, riprap; and extent and type of bulkheading, if any:)

B. In the event that any of the proposed buildings or structures will exceed a height of thirty-five feet above the average grade level, indicate the approximate location of and number of residential units, existing and potential, that will have an obstructed view:

C. If the application involves a conditional use or variance, set forth in full that portion of the master program which provides that the proposed use may be a conditional use, or, in the case of a variance, from which the variance is being sought:

These Agencies are Equal Opportunity and Affirmative Action employers.  
For special accommodation needs, please contact the appropriate agency in the instructions.

**AR 008623**



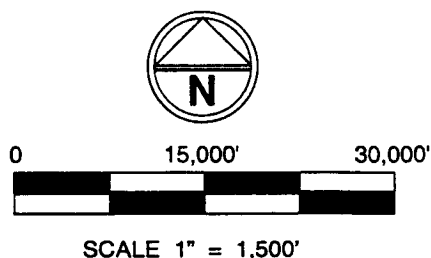
Note: Latitude and longitude are approximate

Port of Seattle/556-2912-001/01(03) 10/00

AR 008624

**PURPOSE:** MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

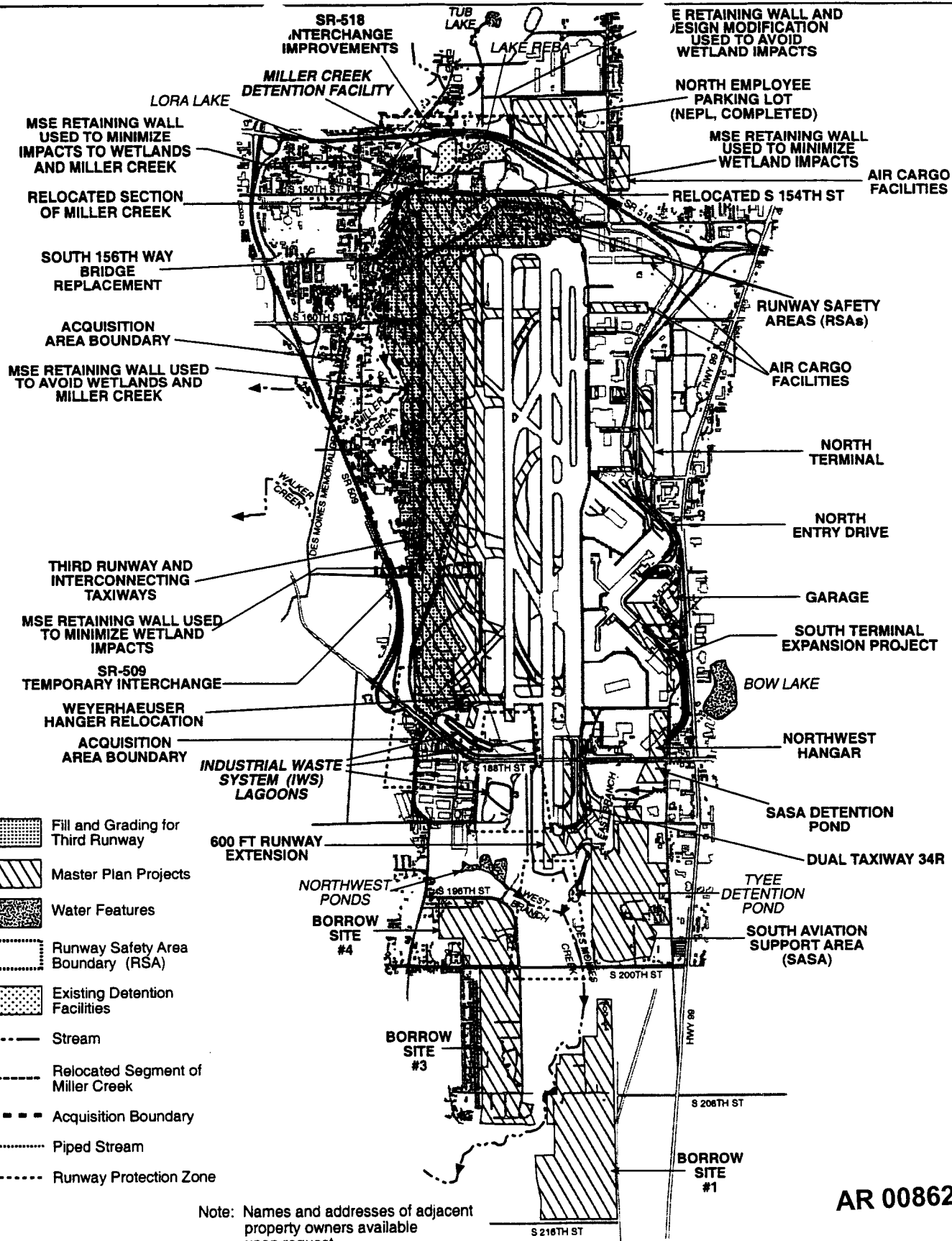
#### VICINITY MAP



**IMPACT/MITIGATION SITES FOR PROPOSED MASTER PLAN UPDATE IMPROVEMENTS AT SEATTLE TACOMA INTERNATIONAL AIRPORT**  
 IN: SECTIONS 20, 21, 28, 29, 32, AND 33, TOWNSHIP 23N, RANGE 4E;  
 SECTIONS 4, 5, AND 9 TOWNSHIP 22N, RANGE 4E; AND SECTION 31 TOWNSHIP 22N, RANGE 5E  
 COUNTY OF: KING STATE: WA  
 APPLICATION BY: PORT OF SEATTLE  
 SHEET 1 of 38 NOVEMBER 2000

96-4-02325





Port of Seattle/556-2912-001/01(03) 10/00

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

96-4-02325

#### PLAN VIEW



0 1,800' 3,600'



SCALE 1" = 2,700'

#### PROPOSED MASTER PLAN UPDATE IMPROVEMENT PROJECTS AT STIA

IN SECTIONS 20, 21, 28, 29, 32, AND 33, TOWNSHIP 23N, RANGE 4E;

SECTIONS 4, 5, AND 9

TOWNSHIP 22N, RANGE 4E

COUNTY OF: KING

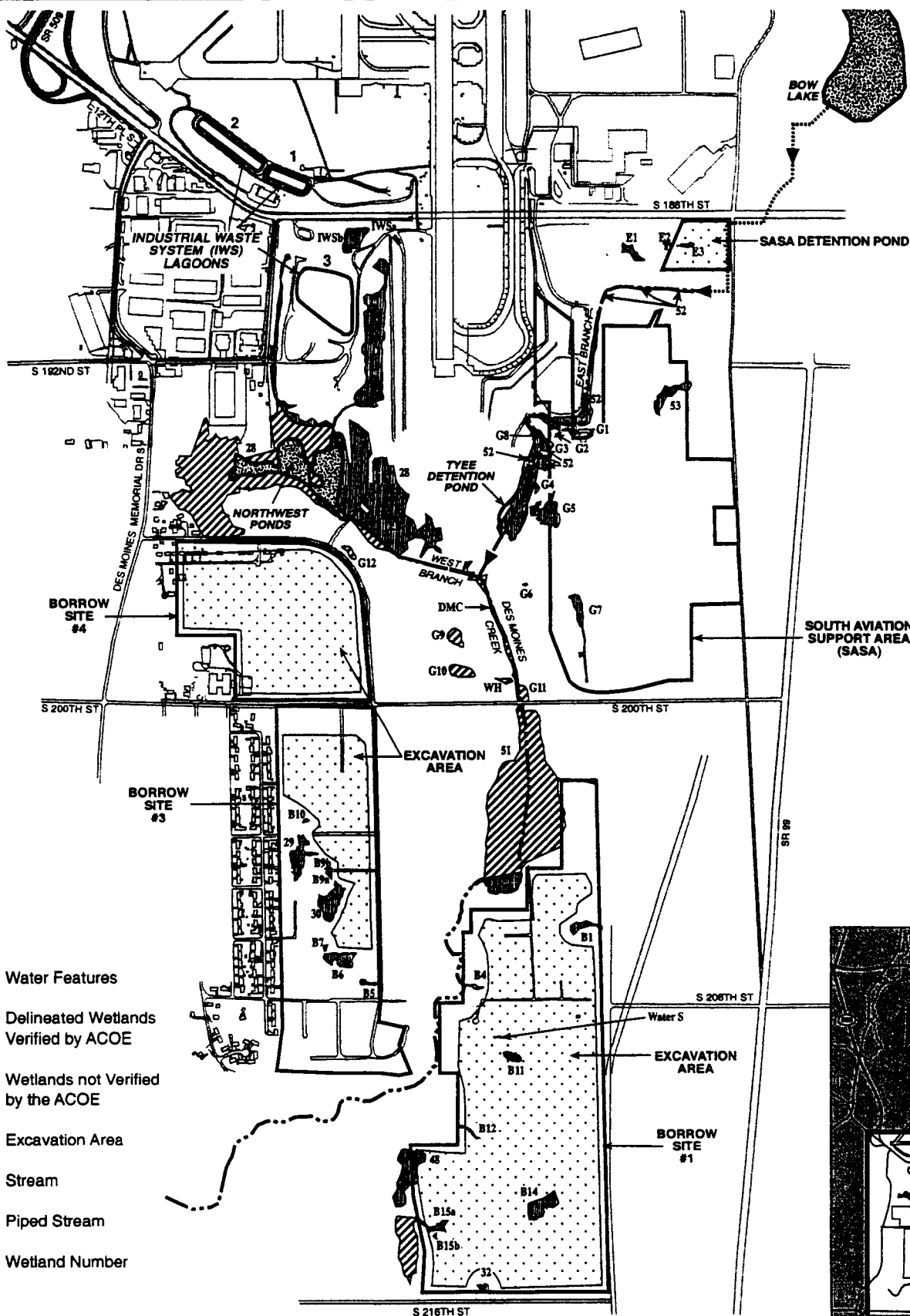
STATE: WA

APPLICATION BY: PORT OF SEATTLE

SHEET 2 of 38

NOVEMBER 2000





Port of Seattle/556-2912-001/01(03) 10/00

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

96-4-02325

PLAN VIEW



0 800' 1,600'



SCALE 1" = 1,300'

WETLANDS IN THE DES MOINES  
CREEK BASIN IMPACTED BY MASTER  
PLAN UPDATE IMPROVEMENTS

IN SECTIONS 4, 5, AND 9 TOWNSHIP 22N,  
RANGE 4E

COUNTY OF: KING

STATE: WA

APPLICATION BY: PORT OF SEATTLE

SHEET 4 of 38

NOVEMBER 2000

AR 008627

In the approximately 2,600-acre area that will be owned by the Port of Seattle after property acquisition is complete, there are approximately 117 delineated wetlands associated with Master Plan Update improvements totaling approximately 159 acres. Full implementation of the proposed Master Plan Update improvements will fill approximately 18.37 acres of wetlands, including 8.23 acres of forested wetlands, 2.90 acres of scrub-shrub wetlands, and 7.24 acres of emergent wetlands. A complete description of wetlands in the impact area is included in the *Wetland Delineation Report* and *Natural Resource Mitigation Plan*.

Wetland Number	Vegetation Type <sup>a</sup>	Total Impact (acres) <sup>b</sup>	Vegetation Types Impacted (acres)		
			Forested	Shrub	Emergent
Runway Safety Area Extension					
5	Shrub	0.14	0.07	0.07	0.00
	Subtotal	0.14	0.07	0.07	0.00
Third Runway					
9	Forested/Emergent	0.03	0.01	0.00	0.02
11	Forested/Emergent	0.34	0.27	0.00	0.07
12	Forested/Emergent	0.21	0.04	0.00	0.17
13	Emergent	0.05	0.00	0.00	0.05
14	Forested	0.19	0.19	0.00	0.00
15	Emergent	0.28	0.00	0.00	0.28
16	Emergent	0.05	0.00	0.00	0.05
17	Emergent	0.02	0.00	0.00	0.02
18	Forested/Shrub/Emergent	2.74	1.44	0.52	0.78
19	Forested	0.56	0.56	0.00	0.00
20	Shrub/Emergent	0.57	0.00	0.51	0.06
21	Forested	0.22	0.22	0.00	0.00
22	Shrub/Emergent	0.06	0.00	0.01	0.05
23	Emergent	0.77	0.00	0.00	0.77
24	Emergent	0.14	0.00	0.00	0.14
25	Forested	0.06	0.06	0.00	0.00
26	Emergent	0.02	0.00	0.00	0.02
W1	Forested/Emergent	0.10	0.00	0.00	0.10
W2	Forested/Emergent	0.22	0.04	0.00	0.18
35a-d	Forested/Emergent	0.67	0.27	0.00	0.40
37a-f	Forested/Emergent	4.08	2.86	0.00	1.22
40	Forested	0.03	0.00	0.03	0.00
41a and b <sup>c</sup>	Emergent	0.44	0.00	0.00	0.44
44a and b	Forested	0.26	0.18	0.08	0.00
A1	Forested/Shrub/Emergent	0.59	0.09	0.09	0.41
A5	Emergent	0.03	0.00	0.00	0.03

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND  96-4-02325	FILL IMPACTS TO WETLANDS	IN: SECTIONS 20, 21, 28, 29, 32, AND 33, TOWNSHIP 23N, RANGE 4E; SECTIONS 4, 5, AND 9, TOWNSHIP 22N, RANGE 4E; SECTION 31, TOWNSHIP 22N, RANGE 5E COUNTY OF: KING STATE: WA APPLICATION BY: PORT OF SEATTLE SHEET 5 OF 38    NOVEMBER 2000
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Wetland Number	Classification <sup>a</sup>	Total Impact (acres) <sup>b</sup>	Vegetation Types Impacted (acres)		
			Forested	Shrub	Emergent
A6	Forested	0.16	0.16	0.00	0.00
A7	Forested	0.30	0.30	0.00	0.00
A8	Forested/Shrub	0.38	0.07	0.31	0.00
A12	Shrub	0.02	0.00	0.02	0.00
A 18	Shrub	0.01	0.00	0.01	0.00
FW5 and 6	Farmed Wetland	0.15	0.00	0.00	0.15
R1	Emergent	0.13	0.00	0.00	0.13
	<b>Subtotal</b>	<b>13.88</b>	<b>6.76</b>	<b>1.58</b>	<b>5.54</b>
<b>South Aviation Support Area (SASA)</b>					
52	Forested/Shrub/Emergent	0.54	0.54	0.00	0.00
53	Forested	0.60	0.60	0.00	0.00
E2	Forested	0.04	0.04	0.00	0.00
E3	Forested	0.06	0.06	0.00	0.00
G1	Shrub (Slope)	0.05	0.00	0.05	0.00
G2	Emergent	0.02	0.00	0.00	0.02
G3	Emergent	0.06	0.00	0.00	0.06
G4	Emergent	0.04	0.00	0.00	0.04
G5	Emergent	0.87	0.00	0.00	0.87
G7	Forested/Shrub	0.50	0.13	0.37	0.00
	<b>Subtotal</b>	<b>2.78</b>	<b>1.37</b>	<b>0.42</b>	<b>0.99</b>
<b>Borrow Area and Haul Road</b>					
28	Emergent	0.07	0.00	0.00	0.07
48 <sup>c</sup>	Emergent	0.14	0.03	0.00	0.11
B11	Emergent	0.18	0.00	0.00	0.18
B12	Forested	0.07	0.00	0.07	0.00
B14	Shrub	0.78	0.00	0.55	0.23
B15a and b	Shrub	0.21	0.00	0.21	0.00
	<b>Subtotal</b>	<b>1.45</b>	<b>0.03</b>	<b>0.83</b>	<b>0.59</b>
<b>Mitigation<sup>d</sup></b>					
Auburn 7	Emergent	0.02	0.00	0.00	0.02
Auburn 9	Emergent	0.03	0.00	0.00	0.03
Auburn 10	Emergent	0.07	0.00	0.00	0.07
	<b>Subtotal</b>	<b>0.12</b>	<b>0.00</b>	<b>0.00</b>	<b>0.12</b>
<b>TOTAL</b>		<b>18.37</b>	<b>8.23</b>	<b>2.90</b>	<b>7.24</b>

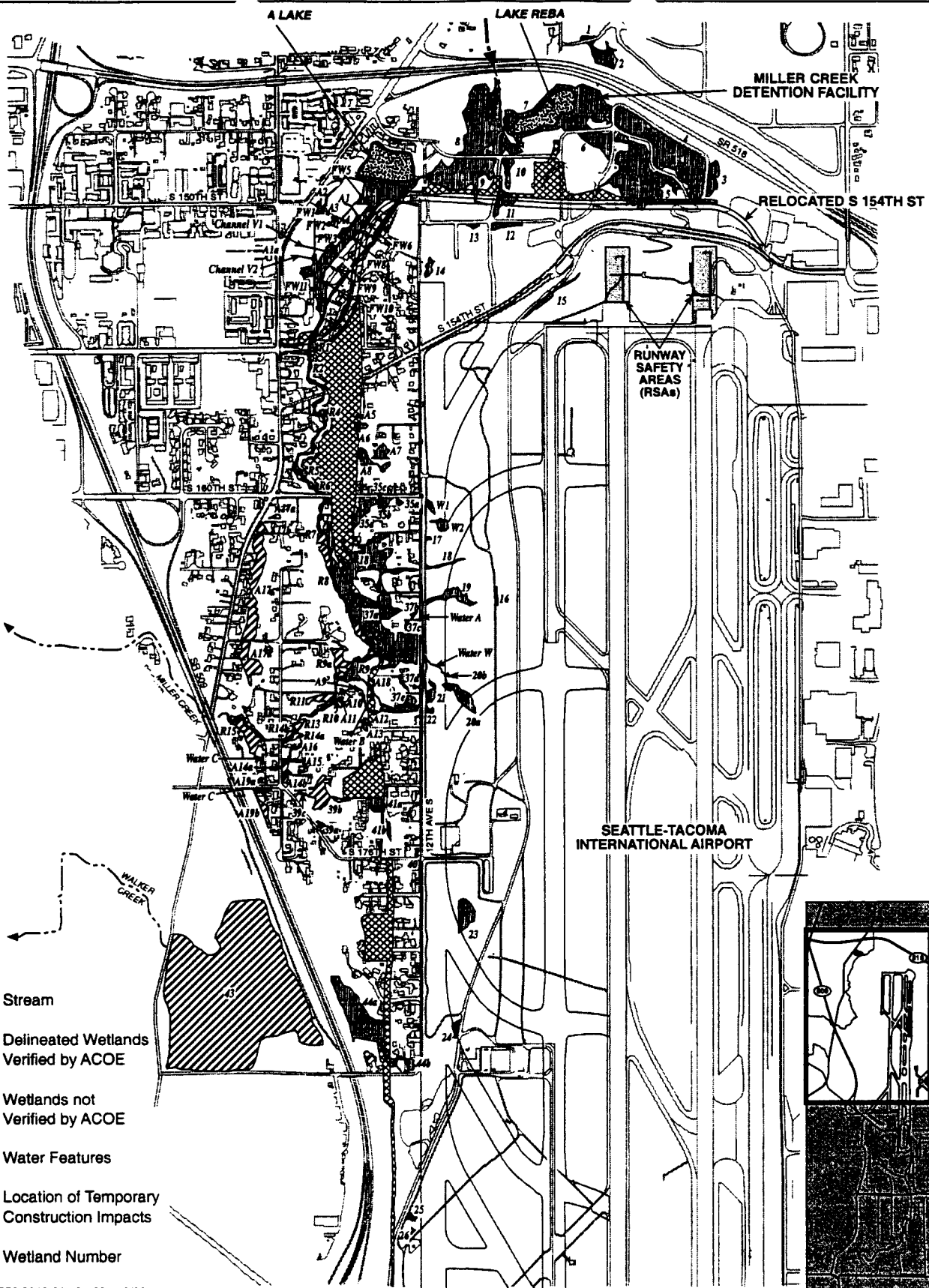
<sup>a</sup> All wetlands are palustrine, based on USFWS wetland classification system (Cowardin et al. 1979).

<sup>b</sup> Values are rounded to two significant figures. Wetland impact may be subject to minor changes due to final engineering.

<sup>c</sup> Includes 0.18 acre of open water habitat.

<sup>d</sup> Impacts result from access roads.

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND  96-4-02325	FILL IMPACTS TO WETLANDS (continuation of Sheet 5 of 38)	IN: SECTIONS 20, 21, 28, 29, 32, AND 33, TOWNSHIP 23N, RANGE 4E; SECTIONS 4, 5, AND 9, TOWNSHIP 22N, RANGE 4E; SECTION 31, TOWNSHIP 22N, RANGE 5E COUNTY OF: KING STATE: WA APPLICATION BY: PORT OF SEATTLE SHEET 6 OF 38      NOVEMBER 2000
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Port of Seattle/556-2912-001/01(03) 10/00

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

96-4-02325

PLAN VIEW



0 800' 1,600'



SCALE 1" = 1,300'

TEMPORARY PROJECT CONSTRUCTION  
IMPACTS TO WETLANDS IN THE  
MILLER CREEK BASIN

SECTIONS 20, 21, 28, 29, 32 AND 33,  
TOWNSHIP 23N, RANGE 4E

COUNTY OF: KING

STATE: WA

APPLICATION BY: PORT OF SEATTLE

SHEET 7 of 38

NOVEMBER 2000

AR 008630

Wetland	Classification <sup>a</sup>	Total Impact Area (acres)	Forest	Vegetation Type Impacted (acres)	
				Shrub	Emergent
Runway Safety Area Extension					
4	Forested <sup>b</sup>	0.10	0.10	0.00	0.00
5	Forested /Shrub <sup>b</sup>	0.10	0.10	0.05	0.00
Third Runway					
9	Forested/Emergent	0.03	0.01	0.00	0.02
11	Forested/Emergent	0.13	0.10	0.00	0.03
18	Forested/Shrub/Emergent	0.22	0.04	0.07	0.11
37	Forested/Shrub/Emergent	0.71	0.50	0.10	0.11
44a	Forested/Shrub	0.30	0.20	0.10	0.00
A1	Forested/Shrub/Emergent <sup>b</sup>	0.05	0.01	0.01	0.03
A12	Shrub	0.03	0.00	0.03	0.00
A13	Forested	0.01	0.01	0.00	0.00
South Aviation Support Area					
52	Forested/Shrub/Emergent <sup>b</sup>	0.17	0.00	0.05	0.12
Borrow Site 1 Wetlands					
48	Forested <sup>b</sup>	0.10	0.10	0.00	0.00
B15	Shrub <sup>b</sup>	0.10	0.00	0.10	0.00
TOTAL		2.05	1.17	0.51	0.42

<sup>a</sup> All wetlands are palustrine, based on USFWS wetland classification system (Cowardin et al. 1979).

<sup>b</sup> Temporary impacts will be limited to installation of sediment fencing and standard BMPs

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND  96-4-02325	TABLE OF TEMPORARY CONSTRUCTION IMPACTS TO WETLANDS ANTICIPATED FROM MASTER PLAN UPDATE IMPROVEMENTS, SEATTLE- TACOMA INTERNATIONAL AIRPORT	IN: SECTIONS 20, 21, 28, 29, 32, AND 33, TOWNSHIP 23N, RANGE 4E; SECTIONS 4, 5, AND 9, TOWNSHIP 22N, RANGE 4E COUNTY OF: KING STATE: WA APPLICATION BY: PORT OF SEATTLE SHEET 8 OF 38      NOVEMBER 2000
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K:\working\2912\5329120\03mpu\Public Notice\2000 Public Notice\Export Table Temp Impacts.doc

AR 008631

Wetland	Rating	Vegetation Types	Total Impact (acres)	Vegetation Type Impacted (acres)		
				Forest	Shrub	Emergent
Temporary impacts to wetlands associated with implementing mitigation that includes excavation and installation of temporary roads						
FW 1, 2, 3, 8, 9, 10, and FW 11 <sup>a</sup>						
A1 <sup>a</sup>	IV	Farmed Wetlands	0.88	0.00	0.00	0.88
A2 <sup>a</sup>	II	Forested/Shrub/Emergent	3.74	0.56	0.56	2.62
A3 <sup>a</sup>	IV	Shrub	0.05	0.00	0.05	0.00
A4 <sup>a</sup>	IV	Shrub	0.01	0.00	0.01	0.00
Auburn Area 1 <sup>b</sup>	IV	Shrub	0.03	0.00	0.03	0.00
Auburn Area 2 <sup>c</sup>	II	Emergent	1.55	0.00	0.00	1.55
Auburn Area 3 <sup>c</sup>	II	Emergent	0.05	0.00	0.00	0.05
Auburn Area 4 <sup>c</sup>	II	Emergent	2.46	0.00	0.00	2.46
Auburn Area 5 <sup>c</sup>	II	Emergent	0.94	0.00	0.00	0.94
Auburn Area 6 <sup>c</sup>	II	Emergent	2.19	0.00	0.00	2.19
Auburn Area 8 <sup>c</sup>	II	Emergent	0.34	0.00	0.00	0.34
Auburn <sup>d</sup>	II	Emergent	0.59	0.00	0.00	0.59
	II	Emergent	2.20	0.00	0.00	2.20
		Subtotal	15.03	0.56	0.65	13.82

**Temporary impacts in wetlands associated with enhancement planting only**

A16 <sup>e</sup>	III	Shrub/Emergent	0.05	0.00	0.00	0.05
18 <sup>e</sup>	II	Forested/Shrub/Emergent	1.27	1.27	0.00	0.00
28 <sup>f</sup>	II	Forested/Shrub/Emergent	4.50	0.00	0.00	4.50
37a <sup>e</sup>	II	Forested/Emergent	1.96	1.50	0.00	0.46
A1 <sup>e</sup>	II	Forested/Shrub/Emergent	0.34	0.34	0.00	0.00
A10 <sup>e</sup>	IV	Shrub	0.01	0.00	0.01	0.00
A11 <sup>e</sup>	III	Shrub	0.02	0.00	0.02	0.00
R1 <sup>e</sup>	III	Emergent	0.04	0.00	0.00	0.04
R2 <sup>e</sup>	III	Shrub/Emergent	0.12	0.00	0.06	0.06
R3 <sup>e</sup>	III	Shrub	0.02	0.00	0.02	0.00
R4 <sup>e</sup>	III	Emergent	0.11	0.00	0.00	0.11
R5 <sup>e</sup>	III	Emergent	0.05	0.00	0.00	0.05
R6 <sup>e</sup>	III	Forested/Emergent	0.21	0.05	0.00	0.16
R6b <sup>e</sup>	III	Emergent	0.09	0.00	0.00	0.09
R7 <sup>e</sup>	III	Forested/Emergent	0.04	0.04	0.00	0.00
R7a <sup>e</sup>	III	Emergent	0.04	0.04	0.00	0.00
R8 <sup>e</sup>	III	Shrub/Emergent	0.40	0.00	0.20	0.20
R9a <sup>e</sup>	III	Forested/Shrub/Emergent	0.30	0.30	0.00	0.00
R10 <sup>e</sup>	III	Shrub	0.04	0.04	0.00	0.00
R11 <sup>e</sup>	III	Emergent	0.42	0.00	0.00	0.42
R12 <sup>e</sup>	III	Forested	0.03	0.03	0.00	0.00
R13 <sup>e</sup>	III	Emergent	0.12	0.00	0.00	0.12
R14a <sup>e</sup>	III	Shrub/Emergent	0.13	0.13	0.00	0.00

Continued on Sheet 10 of 38

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND  96-4-02325	TEMPORARY IMPACTS TO WELANDS DUE TO WETLAND MITIGATION ACTIVITIES	IN: SECTIONS 20, 21, 28, 29, 32, AND 33, TOWNSHIP 23N, RANGE 4E; SECTIONS 4, 5, AND 9, TOWNSHIP 22N, RANGE 4E; SECTION 31, TOWNSHIP 22N, RANGE 5E COUNTY OF: KING STATE: WA APPLICATION BY: PORT OF SEATTLE SHEET 9 OF 38 NOVEMBER 2000
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Continued from Sheet 9 of 38

Wetland	Rating	Vegetation Types	Total Impact (acres)	Vegetation Type Impacted (acres)		
R15a <sup>c</sup>	III	Forested/Shrub/Emergent	0.79	0.25	0.40	0.14
R15b <sup>c</sup>	III	Forested/Emergent	0.25	0.06	0.00	0.19
Waters B, V1 <sup>g</sup> , V2 <sup>g</sup>		Open Water	0.05	0.00	0.00	0.05
Auburn <sup>h</sup>	II	Emergent	11.91	0.00	0.00	11.91
		<b>Subtotal</b>	<b>23.31</b>	<b>4.05</b>	<b>0.71</b>	<b>18.55</b>
<b>TOTAL</b>			<b>38.34</b>	<b>4.61</b>	<b>1.36</b>	<b>32.37</b>

<sup>a</sup> Temporary impacts associated with restoration activities at the Vacca Farm site (Sheets 12, 13, 14, and 15).

<sup>b</sup> Temporary impacts result from constructing temporary roads to provide access to the mitigation site (Sheet 33).

<sup>c</sup> Excavation in wetlands at off-site mitigation site to increase habitat diversity/complexity and construction of temporary roads to access the interior portion of the site to conduct monitoring and maintenance activities.

<sup>d</sup> A maximum of 2.20 acres of existing off-site ditches and farmed wetland will be converted to a wetland drainage channel that connects the mitigation site to the 100-year floodplain of the Green River (Sheet 33).

<sup>e</sup> Enhancements in wetlands within the Miller Creek wetland and riparian buffer, south of the Vacca Farm site (Sheet 3).

<sup>f</sup> Planting and removal of culverts in wetland located at the Tyee Valley Golf Course (Sheet 30).

<sup>g</sup> Existing drain tiles will be removed and natural wetland topography restored.

<sup>h</sup> Mowing, disking, and planting in existing meadow wetland.

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

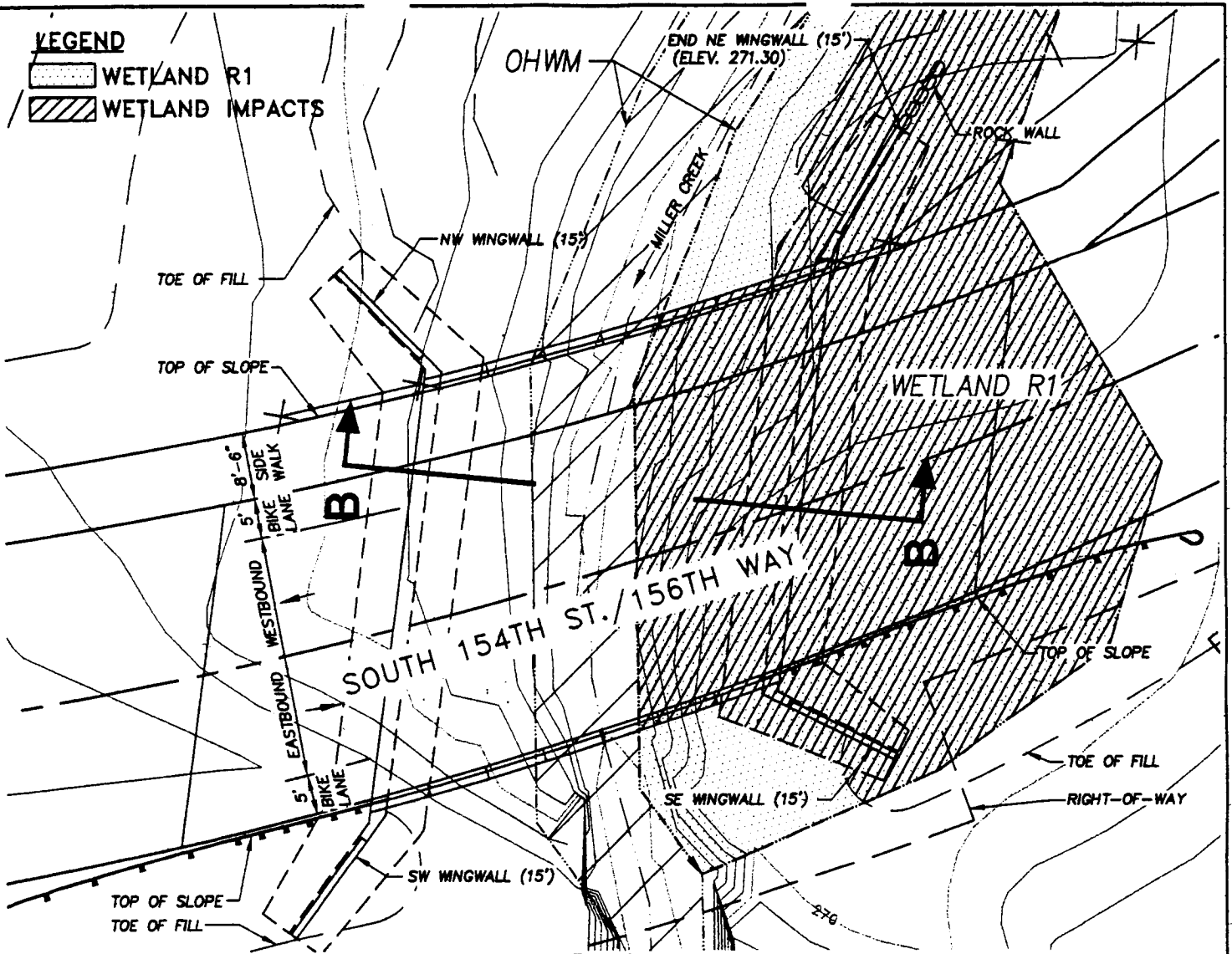
96-4-02325

TEMPORARY IMPACTS TO  
WELANDS DUE TO WETLAND  
MITIGATION ACTIVITIES  
(continuation of Sheet 9 of 38)

IN: SECTIONS 20, 21, 28, 29, 32, AND 33,  
TOWNSHIP 23N, RANGE 4E; SECTIONS 4, 5,  
AND 9, TOWNSHIP 22N, RANGE 4E; SECTION  
31, TOWNSHIP 22N, RANGE 5E  
COUNTY OF: KING STATE: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 10 OF 38 NOVEMBER 2000

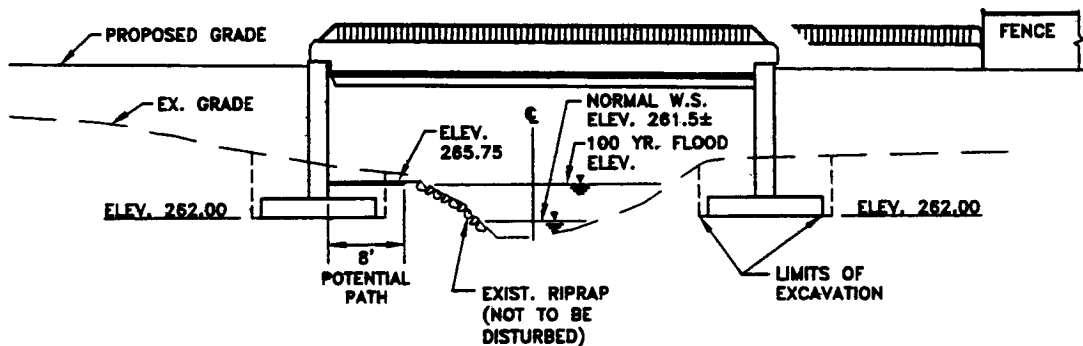
# LEGEND

-  WETLAND R1
-  WETLAND IMPACTS



PLAN

SCALE 1"=20'



SECTION - B

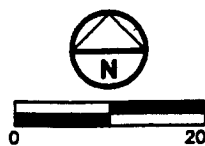
SCALE 1"=20'

AR 008634

NOTE:  
ALL DISTURBED AREAS WILL BE  
STABILIZED USING APPROPRIATE BMPS.

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET ANTICIPATED  
FUTURE DEMAND

PLAN VIEW

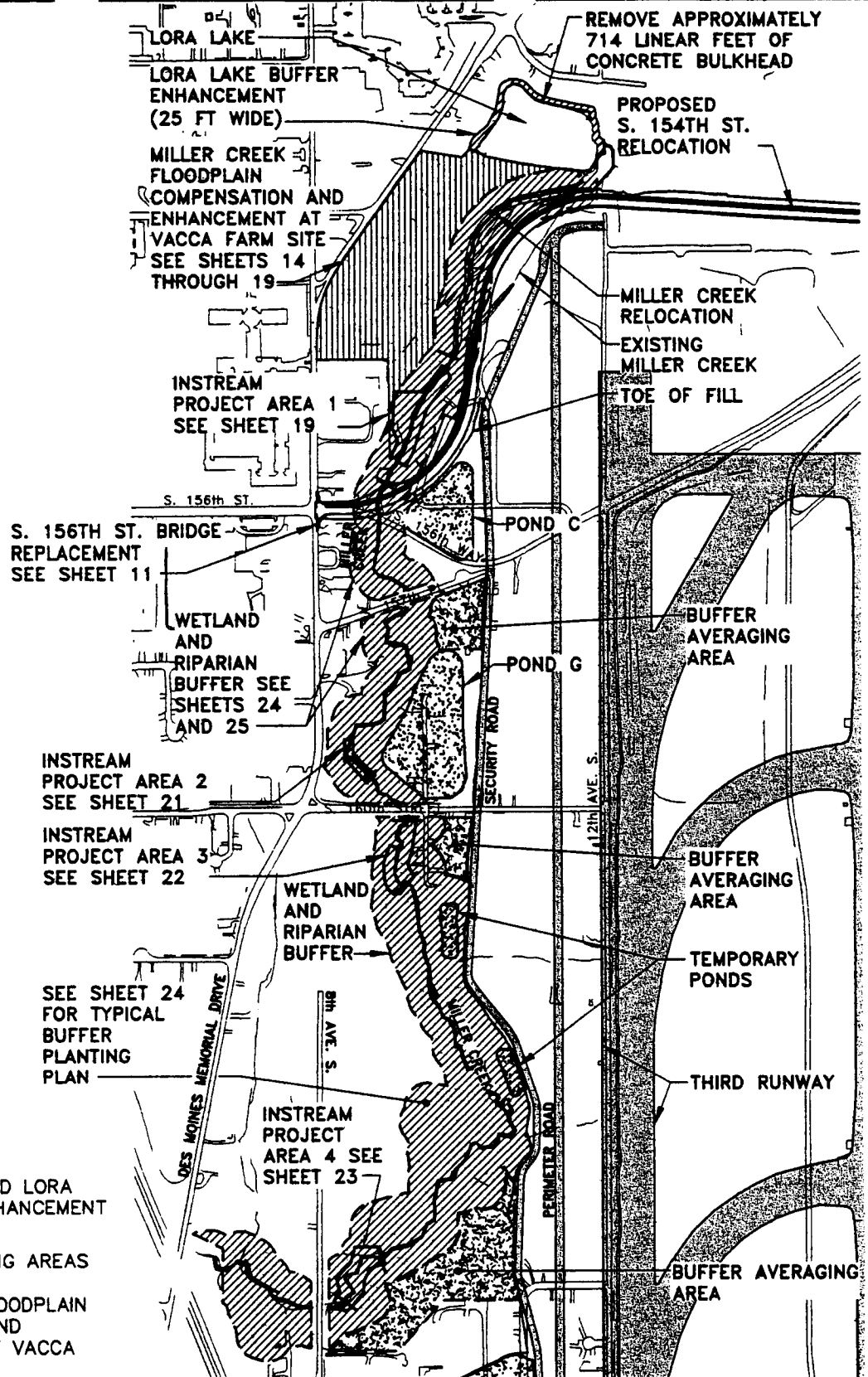
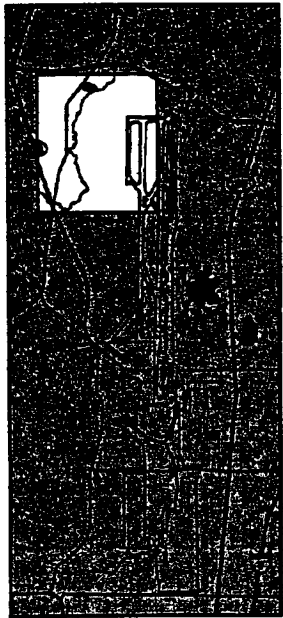


SCALE: 1"=20'



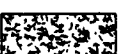

SOUTH 156th WAY BRIDGE  
RELOCATION

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 11 OF 38 NOVEMBER 2000

96-4-02325



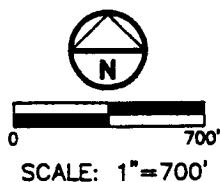
## LEGEND:

-  DETENTION POND
-  MILLER CREEK AND LORA LAKE BUFFER ENHANCEMENT AREAS
-  BUFFER AVERAGING AREAS
-  MILLER CREEK FLOODPLAIN COMPENSATION AND ENHANCEMENT AT VACCA FARM SITE

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

DATUM: SEATAC GRID  
96-4-02325

## PLAN VIEW



## IN-BASIN MITIGATION PROJECTS MILLER CREEK BASIN

IN: SECTIONS 20,29 TOWNSHIP 23N,  
RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 12 OF 38 NOVEMBER 2000

AR 008635

## Summary of Wetland Mitigation Areas.

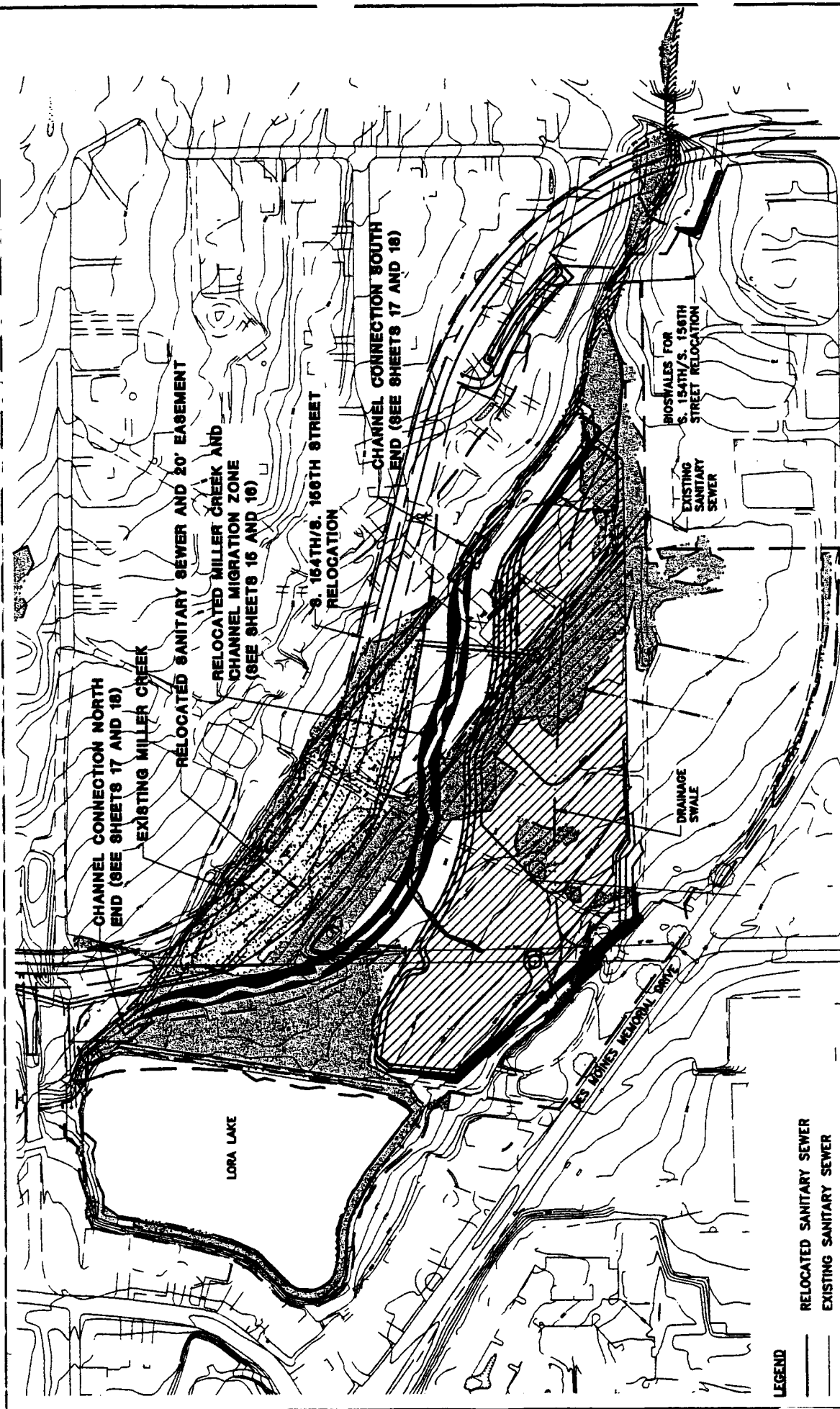
Mitigation	Mitigation Area (acres)
<b>In-Basin</b>	
<u>Wetland Restoration</u>	
Vacca Farm	6.13
<u>Wetland Enhancement</u>	
Vacca Farm (Farmed Wetland, Other Wetlands)	7.05
Wetlands on West Side of Miller Creek	1.50
Wetlands on East Side of Miller Creek	5.55
Tyee Valley Golf Course Wetland 28	4.92
Tyee Valley Golf Course Wetland WH	0.07
<u>Buffer Enhancement</u>	
Miller Creek Buffer (not including enhanced wetlands)	33.65
Vacca Farm	3.79
Lora Lake	0.60
Tyee Valley Golf Course Wetland Buffer and Des Moines Creek 100-ft Setback	10.00 <sup>1</sup>
<u>Other Actions</u>	
Miller Creek Channel Replacement	
Miller Creek Instream Enhancement Projects	
Miller Creek Drainage Channel Replacement	
Trust Fund of \$300,000 for Miller and Des Moines Creek Basins	
<b>Total In-Basin Mitigation</b>	<b>73.26<sup>2</sup></b>
<b>Out-of-Basin</b>	
<u>Wetland Restoration</u>	
Auburn Wetland Restoration	32.10
<u>Wetland Enhancement</u>	
Wetland Enhancement	18.50
<u>Buffer Enhancement</u>	
Enhanced Wetland Buffers	14.70
<b>Total Out-of-Basin Mitigation</b>	<b>65.30</b>
<b>Total Mitigation</b>	<b>138.56<sup>3</sup></b>

<sup>1</sup> This includes buffer around the 4.5 acres of wetland enhancement.

<sup>2</sup> Mitigation area in the Des Moines and Miller Creek watersheds is 14.99 acres and 58.27 acres respectively; in-basin mitigation area divided by wetland impact (18.37 acres) provides a 3.9:1 aerial replacement ratio.

<sup>3</sup> Total mitigation area divided by wetland impact (18.37 acres) provides a 7.5:1 aerial replacement ratio.

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND 96-4-02325	SUMMARY OF WETLAND MITIGATION	IN: SECTIONS 20, 21, 28, 29, 32, AND 33, TOWNSHIP 23N, RANGE 4E; SECTIONS 4, 5, TOWNSHIP 22N, RANGE 4E; SECTION 31, TOWNSHIP 22N, RANGE 5E COUNTY OF: KING STATE: WA APPLICATION BY: PORT OF SEATTLE SHEET 13 OF 38 NOVEMBER 2000
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# LEGEND

- RELOCATED SANITARY SEWER
- EXISTING SANITARY SEWER
- WETLAND BOUNDARY
- EXISTING CONTOUR
- PROPOSED CONTOUR
- LIMIT OF CONSTRUCTION
- FILLED FLOODPLAIN  
8,435 CY (5.24 AC.-FT.)
- WETLAND (VERIFIED)
- PROPOSED FLOODPLAIN EXCAVATION  
9,600 CY (5.9 AC.-FT.)

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

DATUM: SEATAC GRID

96-4-02325

PLAN VIEW



SCALE 1" = 225'

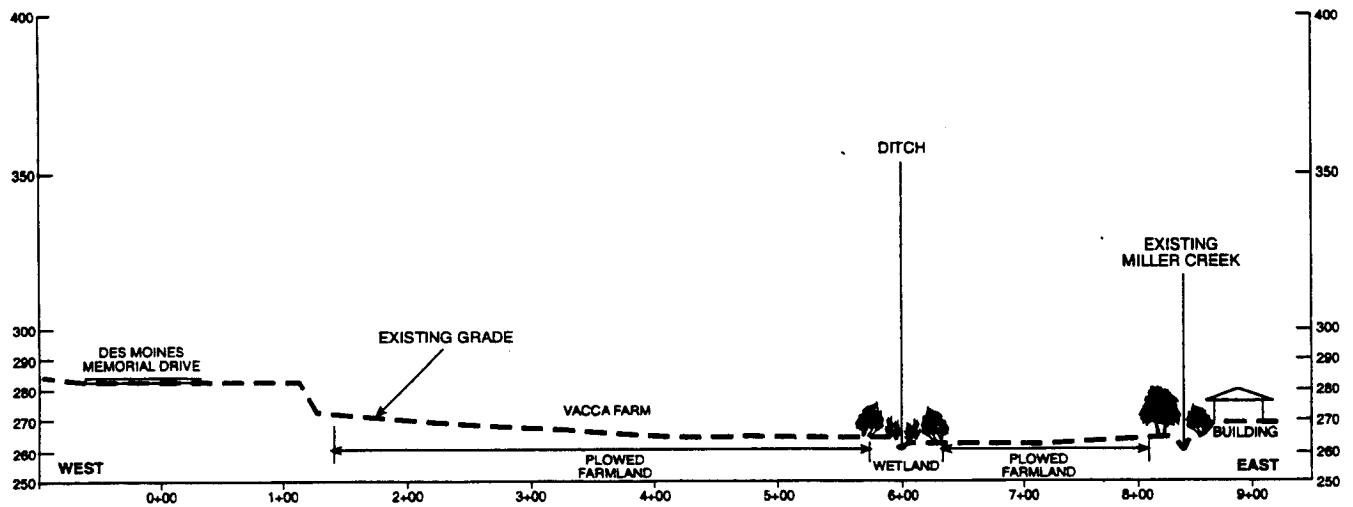
GRADING PLAN FOR THE MILLER  
CREEK RELOCATION AND FLOODPLAIN  
ENHANCEMENT AT VACCA FARM

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE

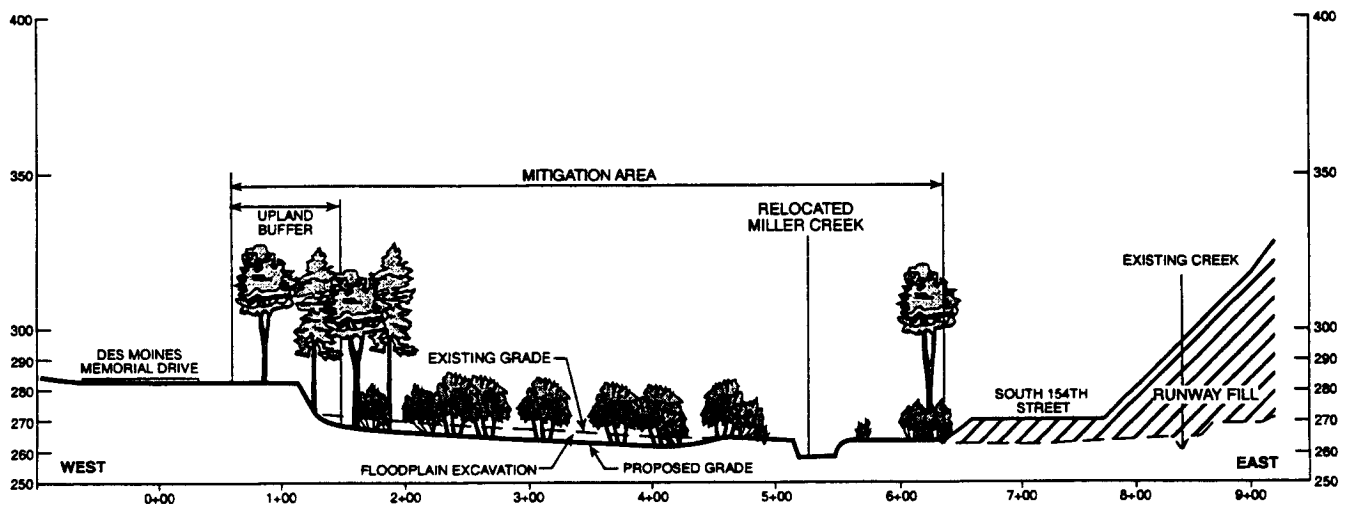
SHEET 14 OF 38

NOVEMBER 2000

# Existing Conditions



# Post-Mitigation



AR 008638

Port of Seattle/556-2912-001/01(03) 10/00

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

DATUM: VERTICAL: KING COUNTY  
HORIZONTAL: SEA-TAC GRID

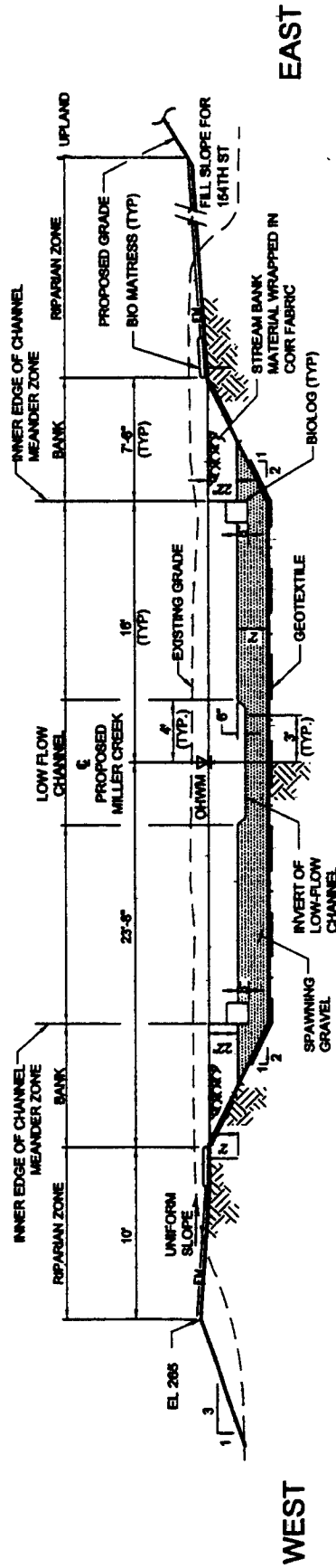
96-4-02325

## SECTION VIEW

VERTICAL SCALE 1" = 60'  
HORIZONTAL SCALE 1" = 150'

TYPICAL CROSS SECTION PROPOSED  
GRADING FOR MILLER CREEK  
RELOCATION AND FLOODPLAIN  
ENHANCEMENT AT VACCA FARM

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 15 of 38 NOVEMBER 2000



AR 008639

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

TYPICAL CROSS SECTION

96-4-02325

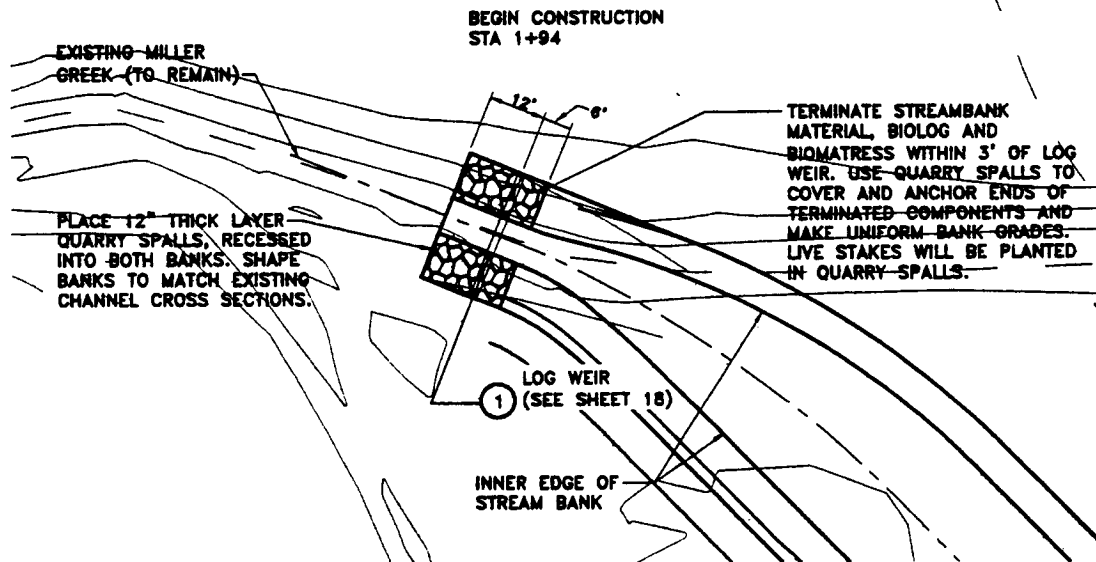
SCALE 1" = 10'

TYPICAL CHANNEL CROSS SECTION,  
MILLER CREEK RELOCATION

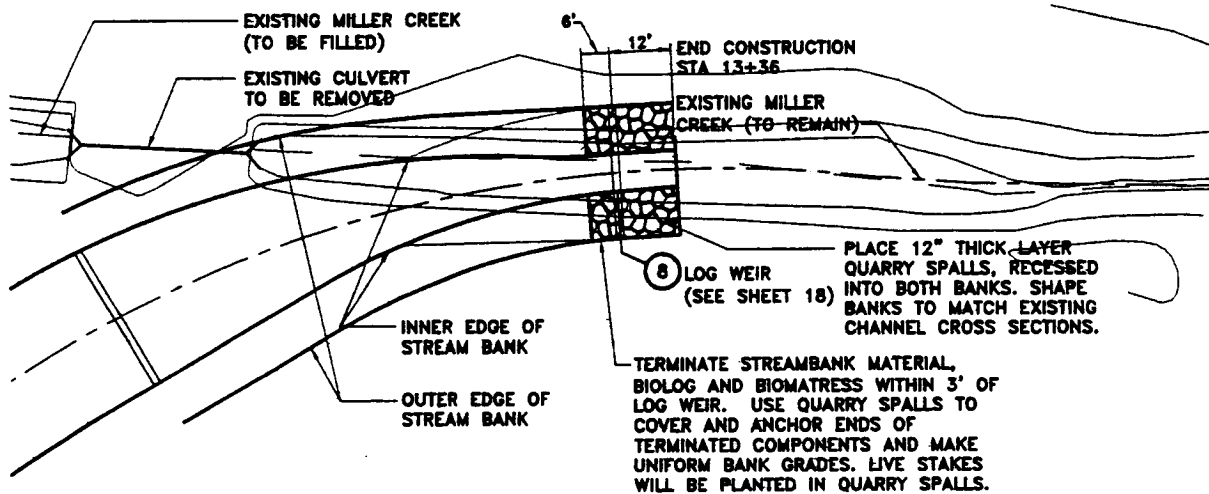
IN: SECTION 20, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE

SHEET 16 OF 38

NOVEMBER 2000



**DETAIL**  
CHANNEL CONNECTION  
NORTH END  
SCALE: 1"=40'



**DETAIL**  
CHANNEL CONNECTION  
SOUTH END  
SCALE: 1"=40'

AR 008640

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

DATUM: SEATAC GRID  
96-4-02325

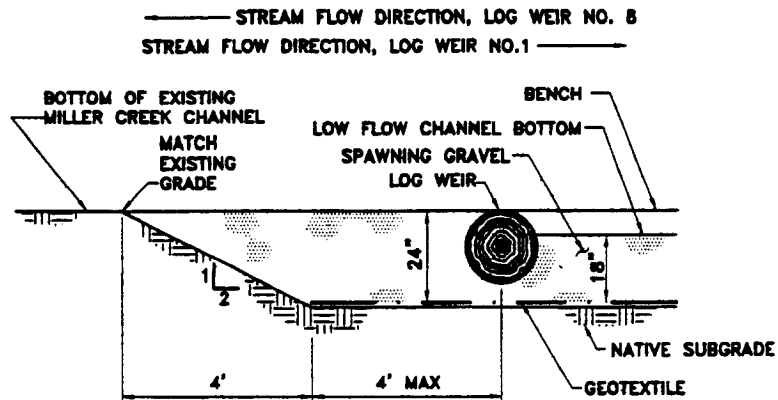
PLAN VIEW

SCALE: AS SHOWN

RELOCATED MILLER CREEK CHANNEL  
CONNECTIONS TO EXISTING CREEK

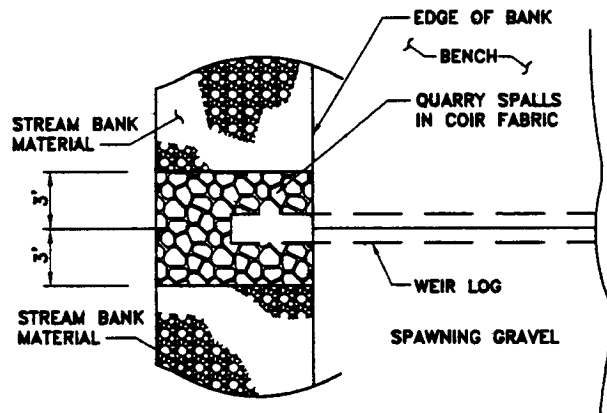
IN: SECTION 20, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 17 OF 38 NOVEMBER 2000





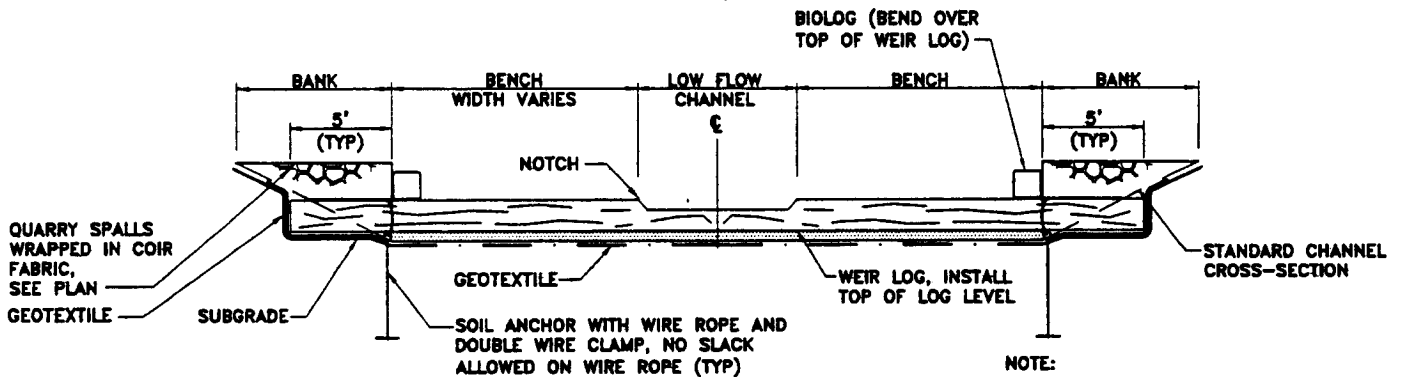
CHANNEL END SECTION  
SECTION

(SEE SHEET 17)  
1" = 4'



DETAIL

(SEE SHEET 17)  
1" = 10'



TYPICAL LOG WEIR  
SECTION

(SEE SHEET 17)  
1" = 10'

NOTE:

COIR FABRIC USED AT LOG WEIRS No. 2-7 ONLY.

WEIR NOTCH DEPTH CAN VARY FROM 4" TO 8" AS NEEDED TO PROVIDE LEVEL SURFACE ACROSS NOTCH WIDTH.

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

CROSS SECTIONS  
AND DETAIL

AR 008641

SCALE AS SHOWN

DETAIL, RELOCATED MILLER CREEK  
LOG WEIRS

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E

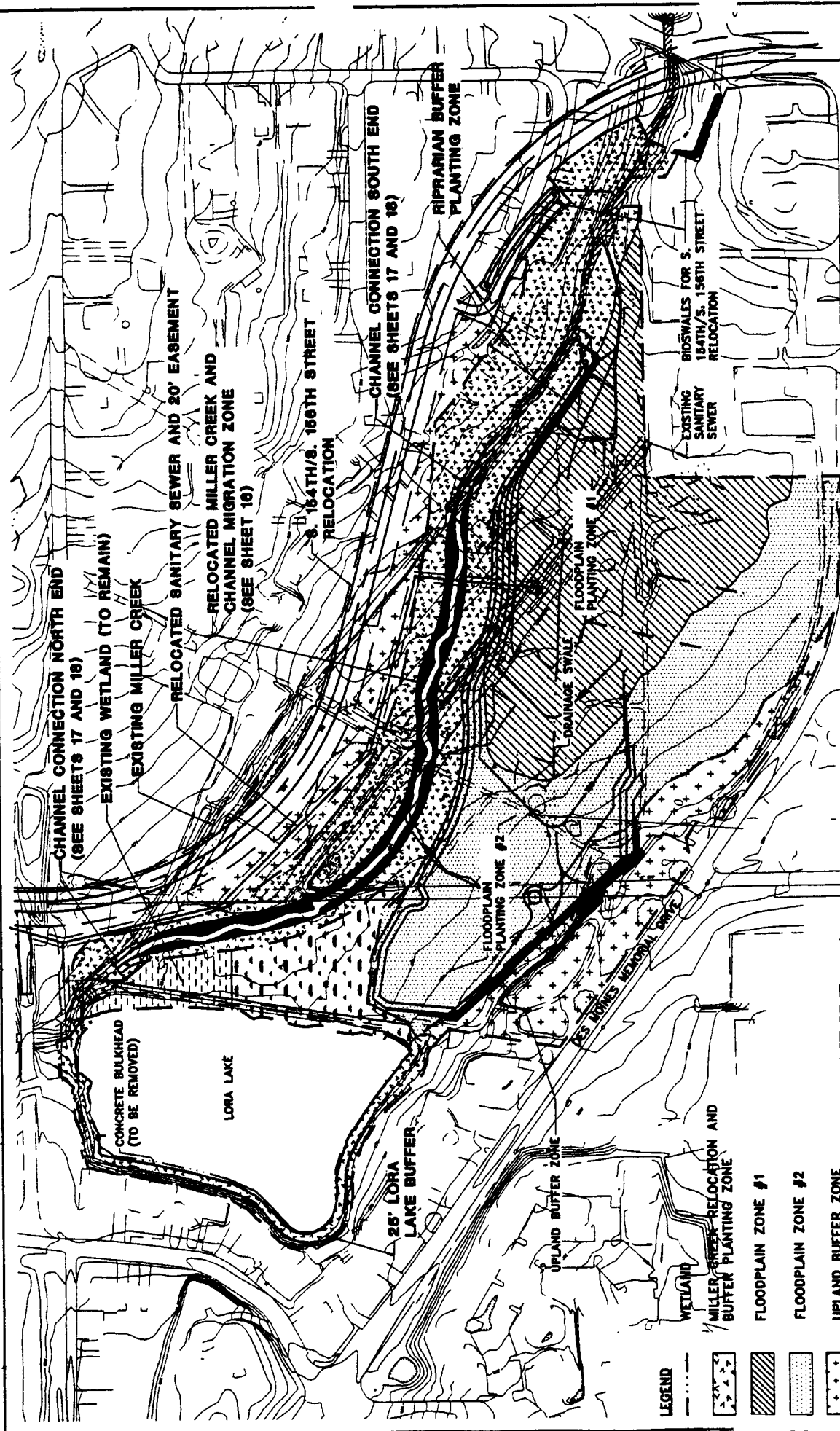
COUNTY OF: KING STATE OF: WA

APPLICATION BY: PORT OF SEATTLE

SHEET 18 OF 38

NOVEMBER 2000

96-4-02325



LEGEND

- CHANNEL CONNECTION NORTH END (SEE SHEETS 17 AND 18)
- CHANNEL CONNECTION SOUTH END (SEE SHEETS 17 AND 18)
- EXISTING WETLAND (TO REMAIN)
- MILLER CREEK PLANTING
- EXISTING CONTOUR
- PROPOSED CONTOUR
- LIMIT OF CONSTRUCTION
- RELOCATED SANITARY SEWER
- EXISTING SANITARY SEWER
- FLOODPLAIN PLANTING ZONE #1
- FLOODPLAIN PLANTING ZONE #2
- UPLAND BUFFER ZONE
- ENHANCED EXISTING WETLAND
- EXISTING WETLAND (TO REMAIN)
- MILLER CREEK PLANTING
- EXISTING CONTOUR
- PROPOSED CONTOUR
- LIMIT OF CONSTRUCTION
- RELOCATED SANITARY SEWER
- EXISTING SANITARY SEWER

PLAN VIEW



SCALE 1" = 225'

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

DATUM: SEATAC GRID

96-4-02325

PLANTING ZONES FOR THE MILLER CREEK RELOCATION AND FLOODPLAIN ENHANCEMENT AT VACCA FARM

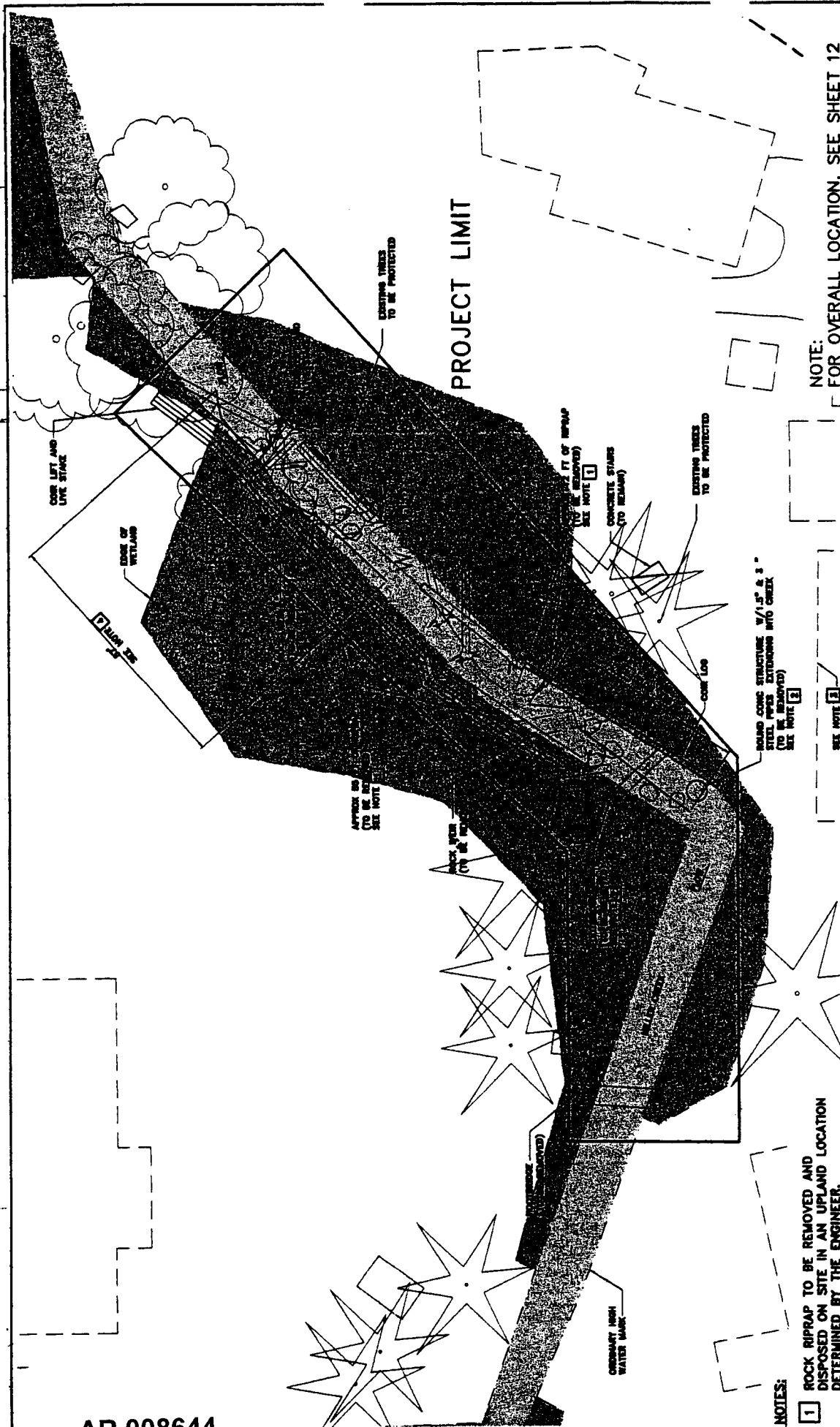
IN: SECTION 20, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE

SHEET 19 OF 38

NOVEMBER 2000

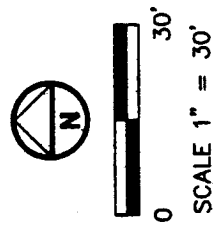
AR 008642





NOTE: FOR OVERALL LOCATION, SEE SHEET 12

PLAN VIEW



PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

DATUM: SEATAC GRID

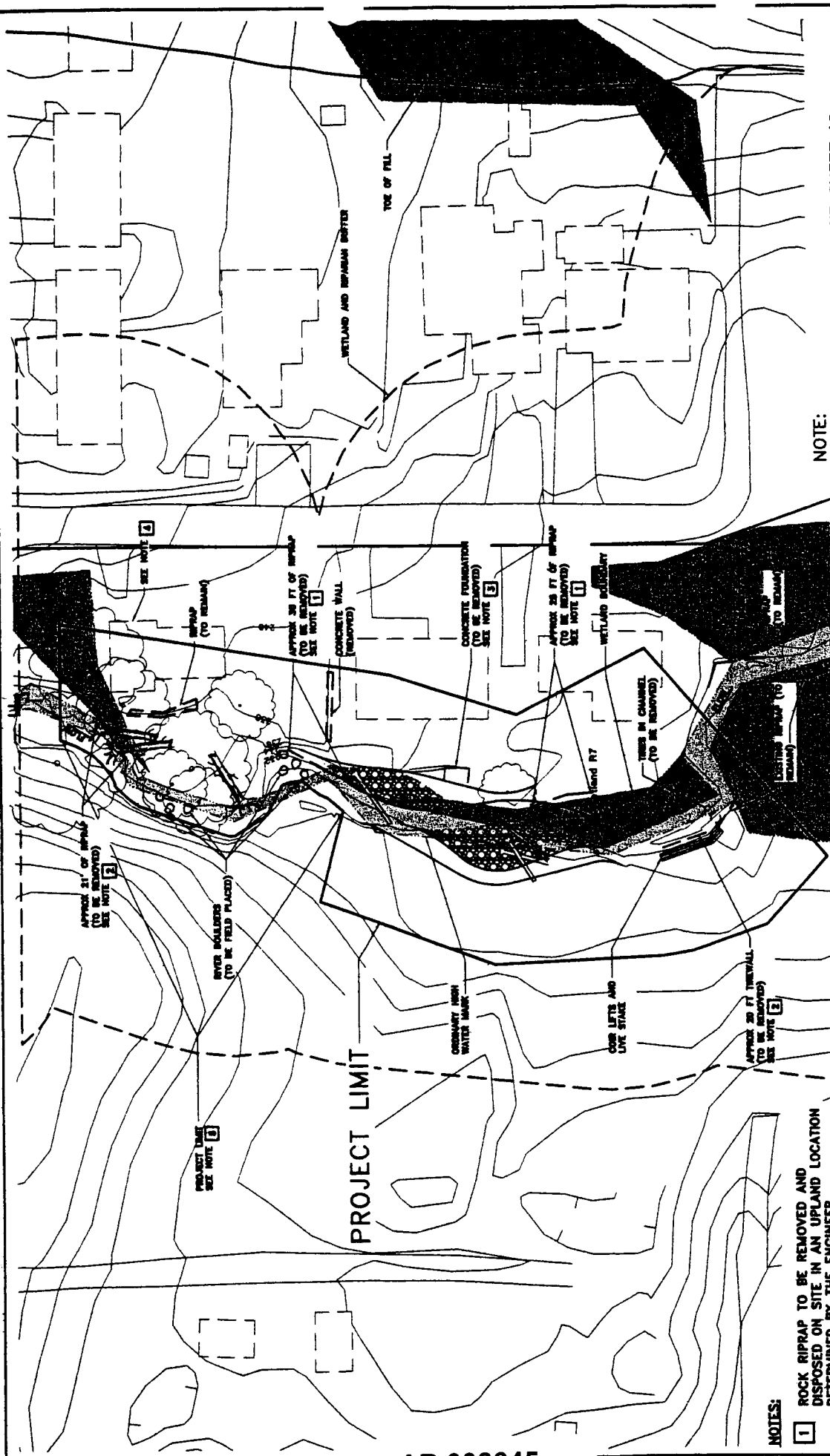
96-4-02325

INSTREAM PROJECT 2

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 21 OF 38 NOVEMBER 2000

NOTES:

- 1 ROCK RIPRAP TO BE REMOVED AND DISPOSED ON SITE IN AN UPLAND LOCATION DETERMINED BY THE ENGINEER.
- 2 TO BE DISPOSED OFF SITE IN AN APPROVED LOCATION.
- 3 BUILDINGS SHOWN WITH — HAVE BEEN REMOVED BY THE PORT OF SEATTLE.
- 4 REGRADE CHANNEL IN PROJECT AREA TO MATCH THE AVERAGE EXISTING GRADIENT BETWEEN STATION 29+50 (WATERFALL) AND STATION 39+58.7 (CULVERT AT S. 160TH); FILL WITH A GRAVEL/COBBLE MIX.
- 5 DISTURBED AREAS WILL BE STABILIZED BY HYDROSEEDING, EROSION CONTROL FABRIC, BIOENGINEERING, OR OTHER APPROVED METHOD.



NOTE:  
FOR OVERALL LOCATION, SEE SHEET 12

#### NOTES:

- 1 ROCK RIPRAP TO BE REMOVED AND DISPOSED ON SITE IN AN UPLAND LOCATION DETERMINED BY THE ENGINEER.
- 2 TIE RIPRAP TO BE REMOVED AND DISPOSED IN AN UPLAND AREA ON SITE.
- 3 OTHER RIPRAP TO BE REMOVED AND DISPOSED IN AN APPROVE OFF SITE LOCATION.
- 4 BUILDINGS SHOWN WITH --- HAVE BEEN REMOVED BY THE PORT OF SEATTLE.
- 5 PROJECT BOUNDARY IN THIS AREA IS TOP OF BANK.
- 6 DISTURBED AREAS WILL BE STABILIZED BY HYDROSEEDING, EROSION CONTROL FABRIC, BIOENGINEERING, OR OTHER APPROVED METHOD.

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

DATUM: SEATAC GRID

96-4-02325

PLAN VIEW

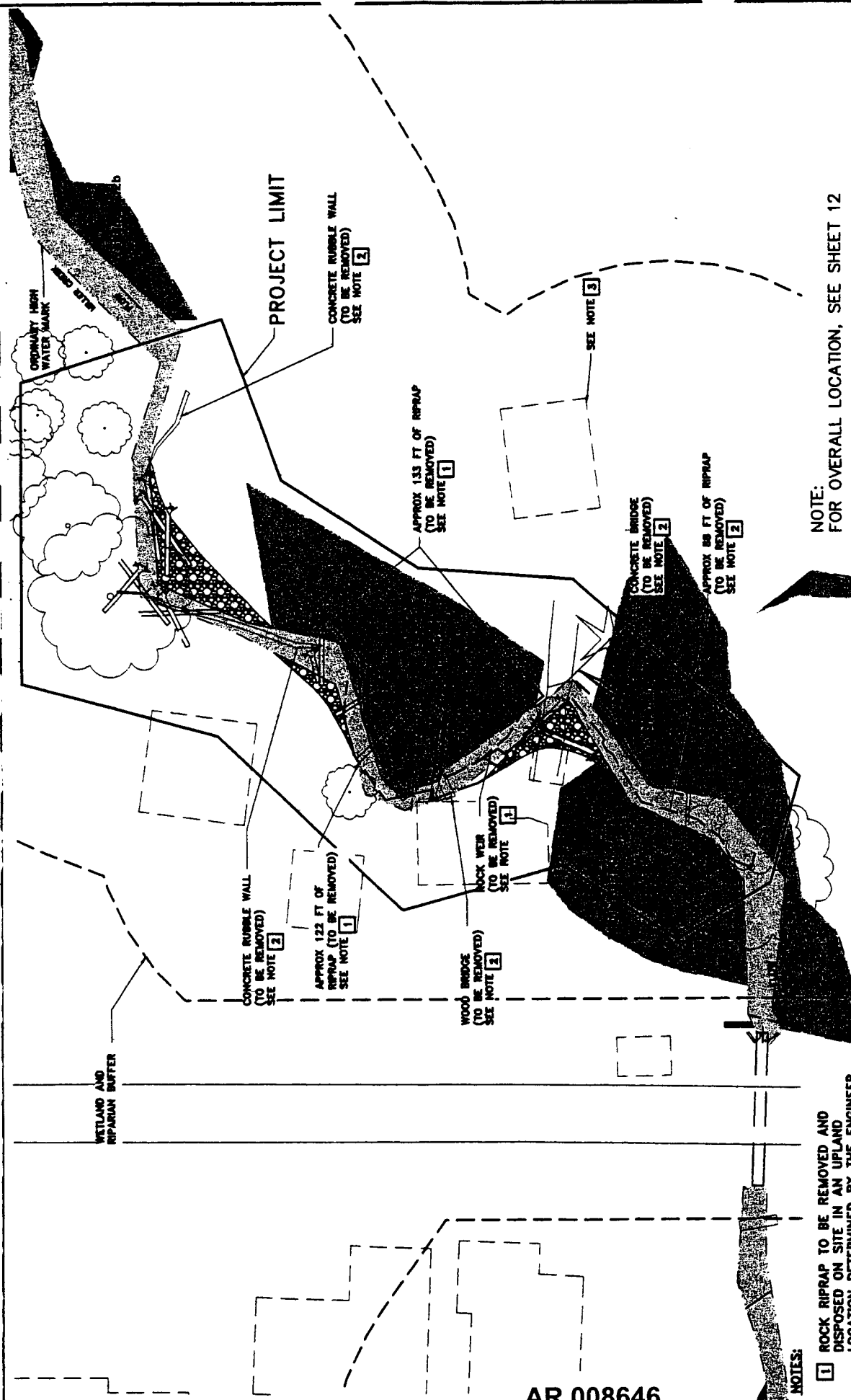


SCALE: 1" = 60'

INSTREAM PROJECT 3

IN: SECTION 29, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 22 OF 38 NOVEMBER 2000

AR 008646



NOTES:

- 1 ROCK RIPRAP TO BE REMOVED AND DISPOSED ON SITE IN AN UPLAND LOCATION DETERMINED BY THE ENGINEER.
- 2 TO BE DISPOSED OFF SITE IN AN APPROVED LOCATION.
- 3 BUILDINGS SHOWN WITH --- HAVE BEEN REMOVED BY THE PORT OF SEATTLE.
4. PROTECT EXISTING TREES.
5. DISTURBED AREAS WILL BE STABILIZED BY HYDROSEEDING, EROSION CONTROL FABRIC, BIOENGINEERING, OR OTHER APPROVED METHOD.

NOTE:  
FOR OVERALL LOCATION, SEE SHEET 12

PLAN VIEW







PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

DATUM: SEATAC GRID

96-4-02325




INSTREAM PROJECT 4

IN: SECTION 29, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 23 OF 38 NOVEMBER 2000





-  Wetland
-  Existing vegetation to remain
-  Existing non-native invasive plant species to be removed and replaced with native riparian trees and shrubs
-  Areas for partial non-native plant removal. Native coniferous trees will be planted to provide shading

#### Riparian Floodplain Zone

##### TREES






-  Western Redcedar
-  Red Alder
-  Oregon Ash

##### SHRUBS

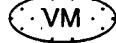

-  Sitka Willow
-  Pacific Willow
-  Hooker's Willow
-  Hydroseed Mix/Natural Colonization

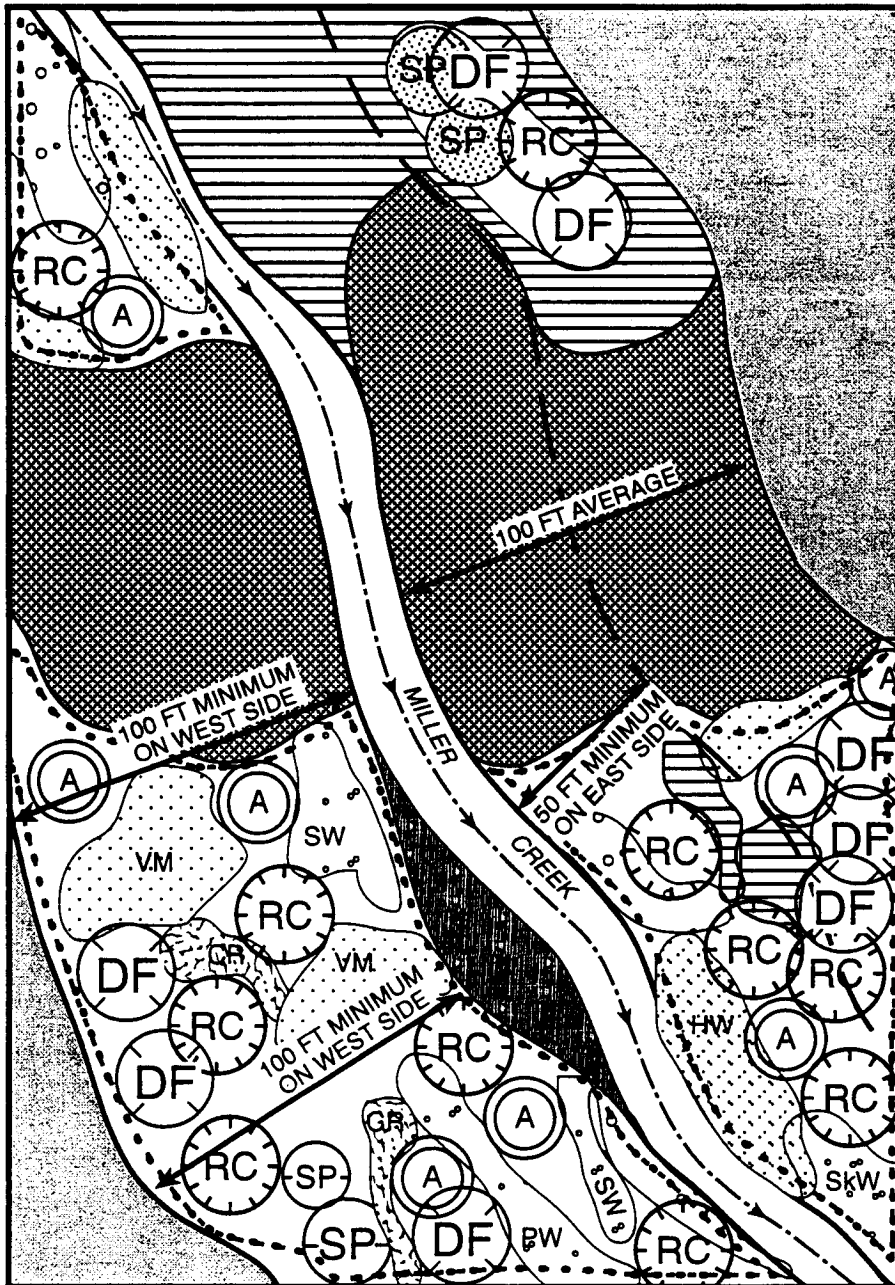
#### Upland Zone

##### TREES

-  Western Redcedar
-  Sitka Spruce
-  Douglas Fir
-  Red Alder
-  Cascara

##### SHRUBS

-  Vine Maple
-  Clustered Rose



Port of Seattle/556-2912-001/01(03) 10/00

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

96-4-02325

#### PLAN VIEW

AR 008647

SCALE 1" = 50'

#### TYPICAL PLANTING PLAN FOR THE MILLER CREEK UPLAND AND RIPARIAN BUFFER

IN: SECTIONS 20 AND 29, TOWNSHIP 23N,  
RANGE 4E

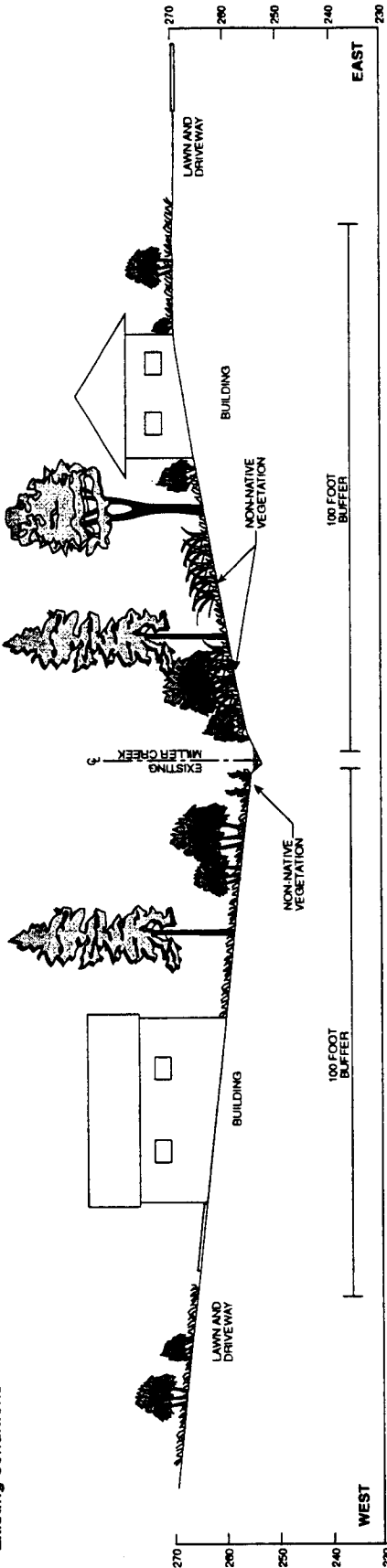
COUNTY OF: KING STATE: WA

APPLICATION BY: PORT OF SEATTLE

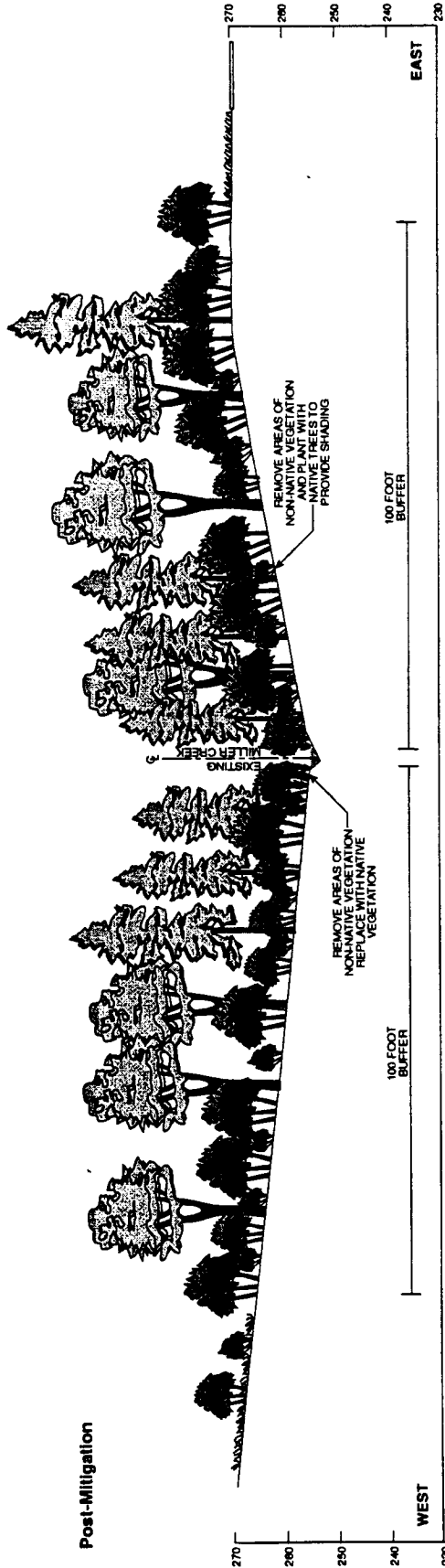
SHEET 24 of 38

NOVEMBER 2000

# Existing Conditions



# Post-Mitigation



Port of Seattle 556-2912-001/01/03 1000

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

DATUM: VERTICAL: KING COUNTY  
HORIZONTAL: SEA-TAC GRID

96-4-02325

# SECTION VIEW

NOT TO SCALE

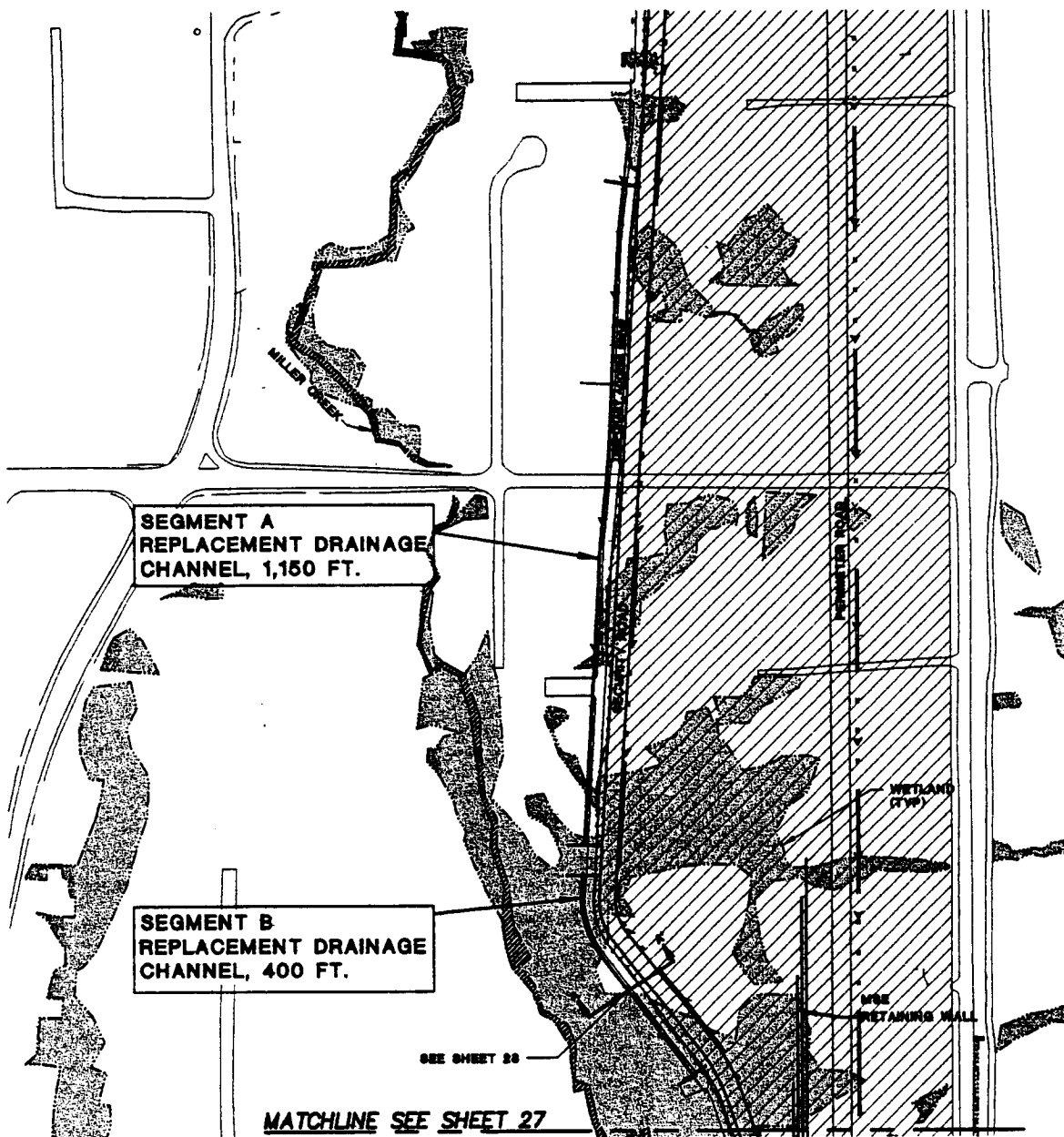
# MILLER CREEK TYPICAL BUFFER ENHANCEMENT

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE: WA  
APPLICATION BY: PORT OF SEATTLE

SHEET 25 of 38

NOVEMBER 2000





## LEGEND

- Construction Impact Line
- : : — Drainage Collection Swale
- < —> — Replacement Drainage Channel
- . . . — Temporary Drainage Channel

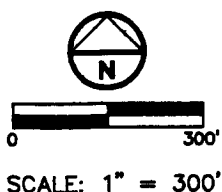
- Embankment
- - - - Wetland

**AR 008649**

**PURPOSE:** MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

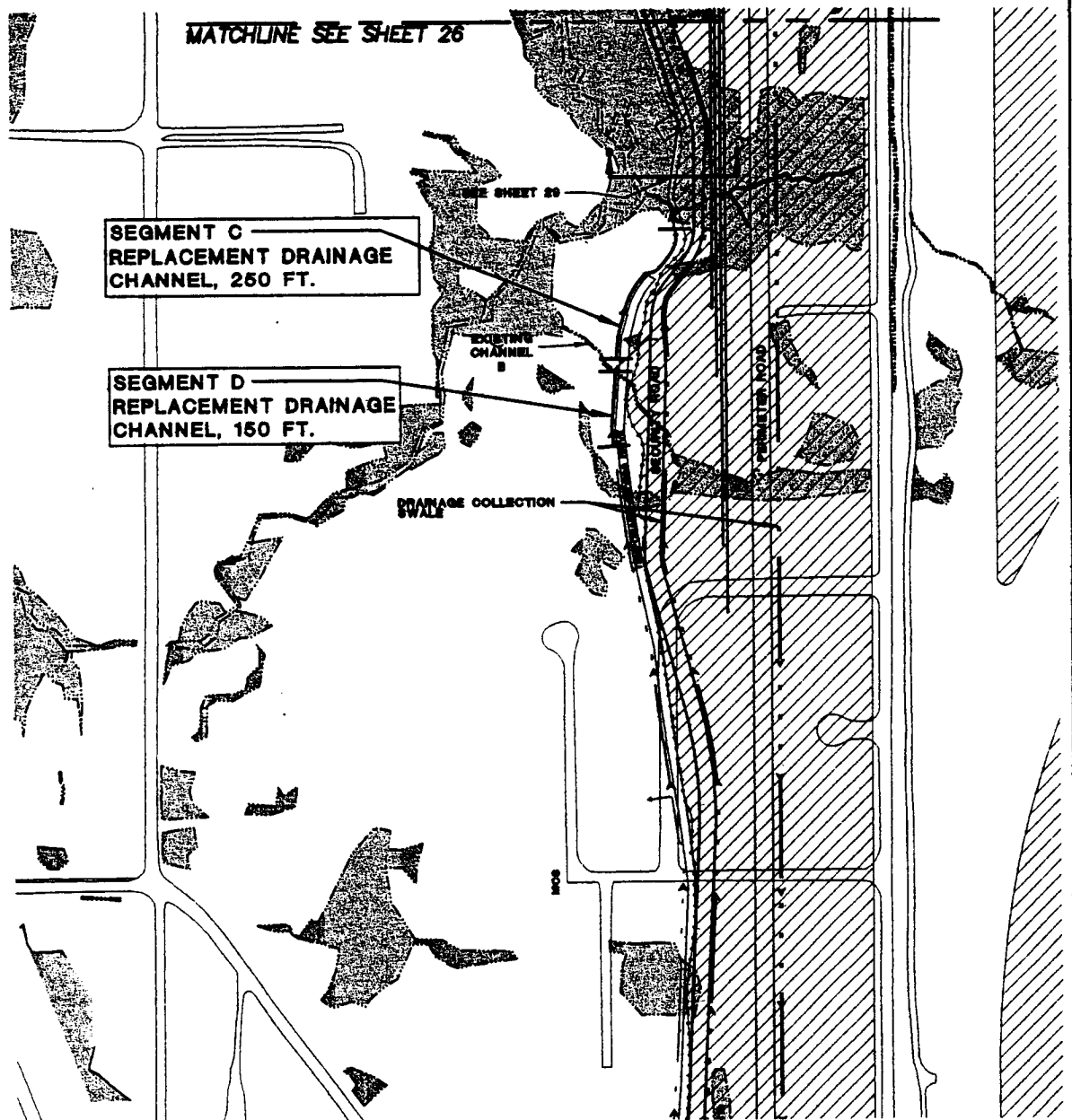
**DATUM:** SEATAC GRID  
96-4-02325

## PLAN VIEW



**LOCATION OF PROPOSED  
REPLACEMENT DRAINAGE CHANNEL  
AND SWALES ALONG THE WEST SIDE  
OF THE THIRD RUNWAY EMBANKMENT,  
NORTH HALF**

IN: SECTION 29, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 26 OF 38 NOVEMBER 2000



## LEGEND

- Construction Impact Line
- Replacement Drainage Channel
- Temporary Drainage Channel

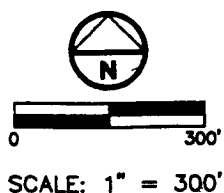
- : : — Drainage Collection Swale
- ▨ Embankment
- Wetland

**AR 008650**

**PURPOSE:** MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

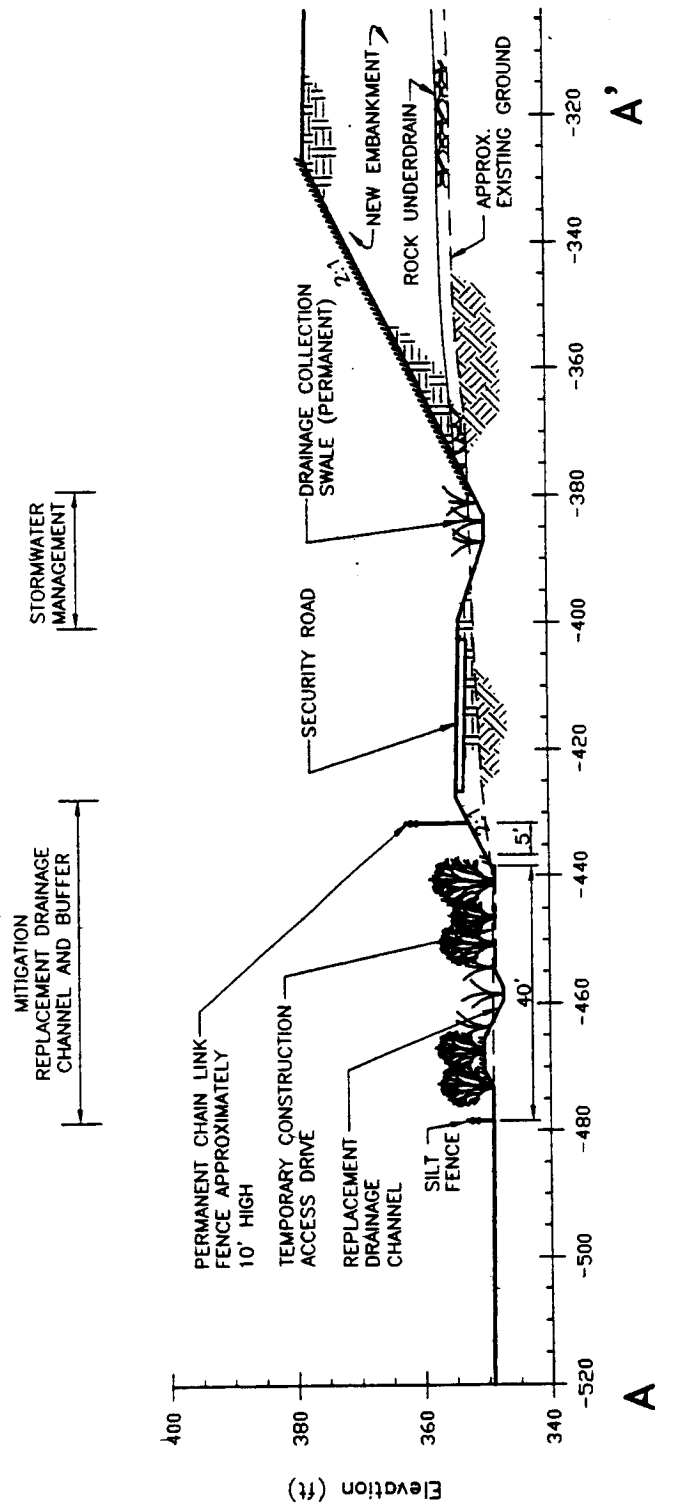
**DATUM:** SEATAC GRID  
96-4-02325

## PLAN VIEW



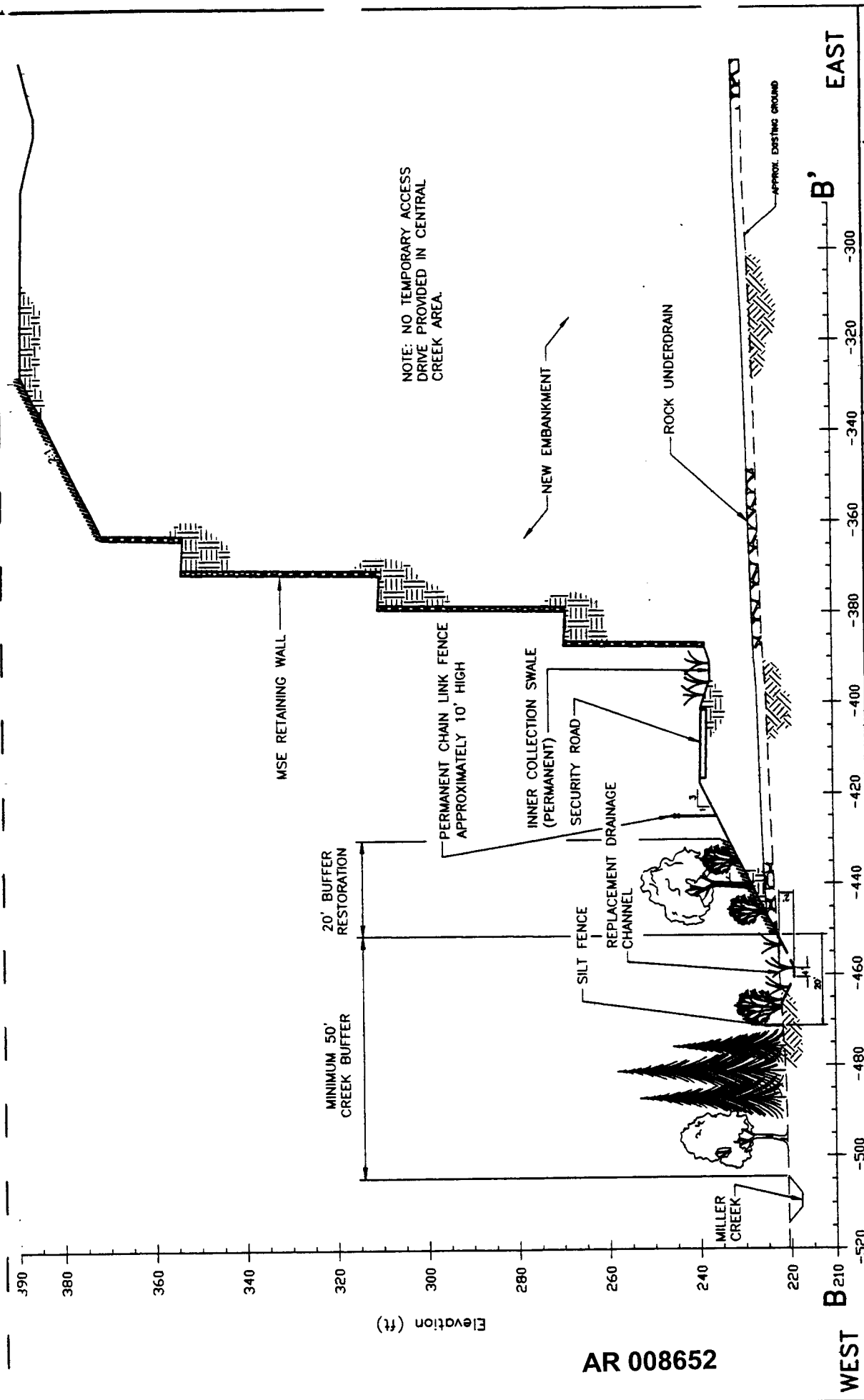
**LOCATION OF PROPOSED  
REPLACEMENT DRAINAGE CHANNEL  
AND SWALES ALONG THE WEST SIDE  
OF THE THIRD RUNWAY EMBANKMENT,  
SOUTH HALF**

**IN:** SECTION 29, TOWNSHIP 23N, RANGE 4E  
**COUNTY OF:** KING **STATE OF:** WA  
**APPLICATION BY:** PORT OF SEATTLE  
**SHEET 27 OF 38** **NOVEMBER 2000**



<p>CROSS SECTION A-A' OF THE REPLACEMENT DRAINAGE CHANNEL, DRAINAGE COLLECTION SWALE AND THIRD RUNWAY EMBANKMENT</p> <p>IN: SECTION 29, TOWNSHIP 23N, RANGE 4E COUNTY OF: KING STATE OF: WA APPLICATION BY: PORT OF SEATTLE SHEET 28 OF 38</p>	<p>CROSS SECTION</p> <p>SCALE 1" = 30'</p>	<p>PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND</p> <p>DATUM: VERTICAL: KING COUNTY HORIZONTAL: SEATAC GRID</p> <p>96-4-02325</p>
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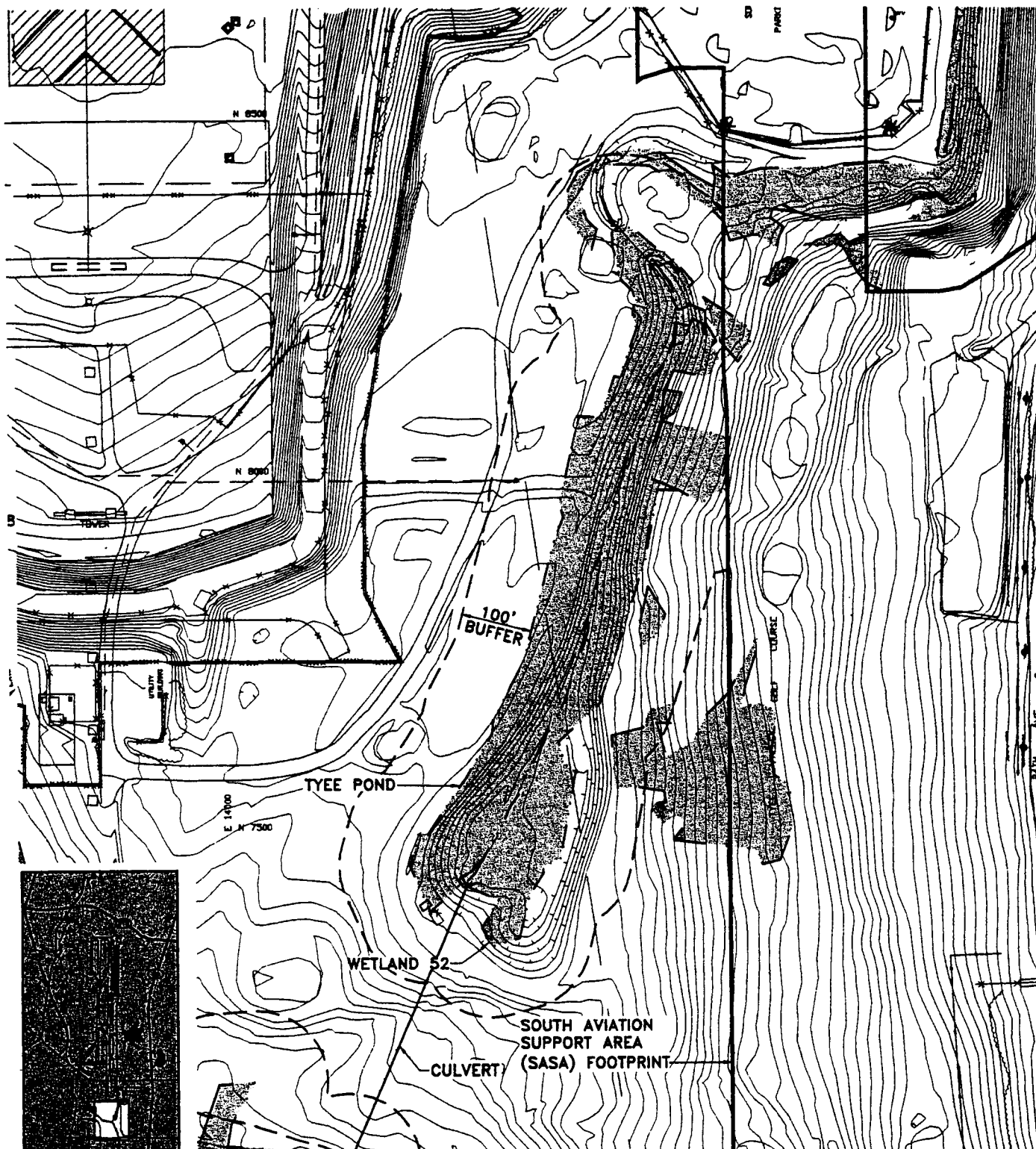
AR 008651



AR 008652

<p>CROSS SECTION B-B' OF THE REPLACEMENT DRAINAGE CHANNEL, DRAINAGE COLLECTION SWALE AND THIRD RUNWAY EMBANKMENT</p> <p>IN: SECTION 29, TOWNSHIP 23N, RANGE 4E COUNTY OF: KING STATE OF: WA APPLICATION BY: PORT OF SEATTLE SHEET 29 OF 38 NOVEMBER 2000</p>	<p>CROSS SECTION</p>	<p>PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND</p> <p>DATUM: VERTICAL: KING COUNTY HORIZONTAL: SEATAC GRID</p> <p>96-4-02325</p>
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**LEGEND**

- WETLAND BOUNDARY
- WETLAND
- - - DES MOINES CREEK

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

DATUM: NGVD 29/AUBURN  
96-4-02325

**PLAN VIEW**



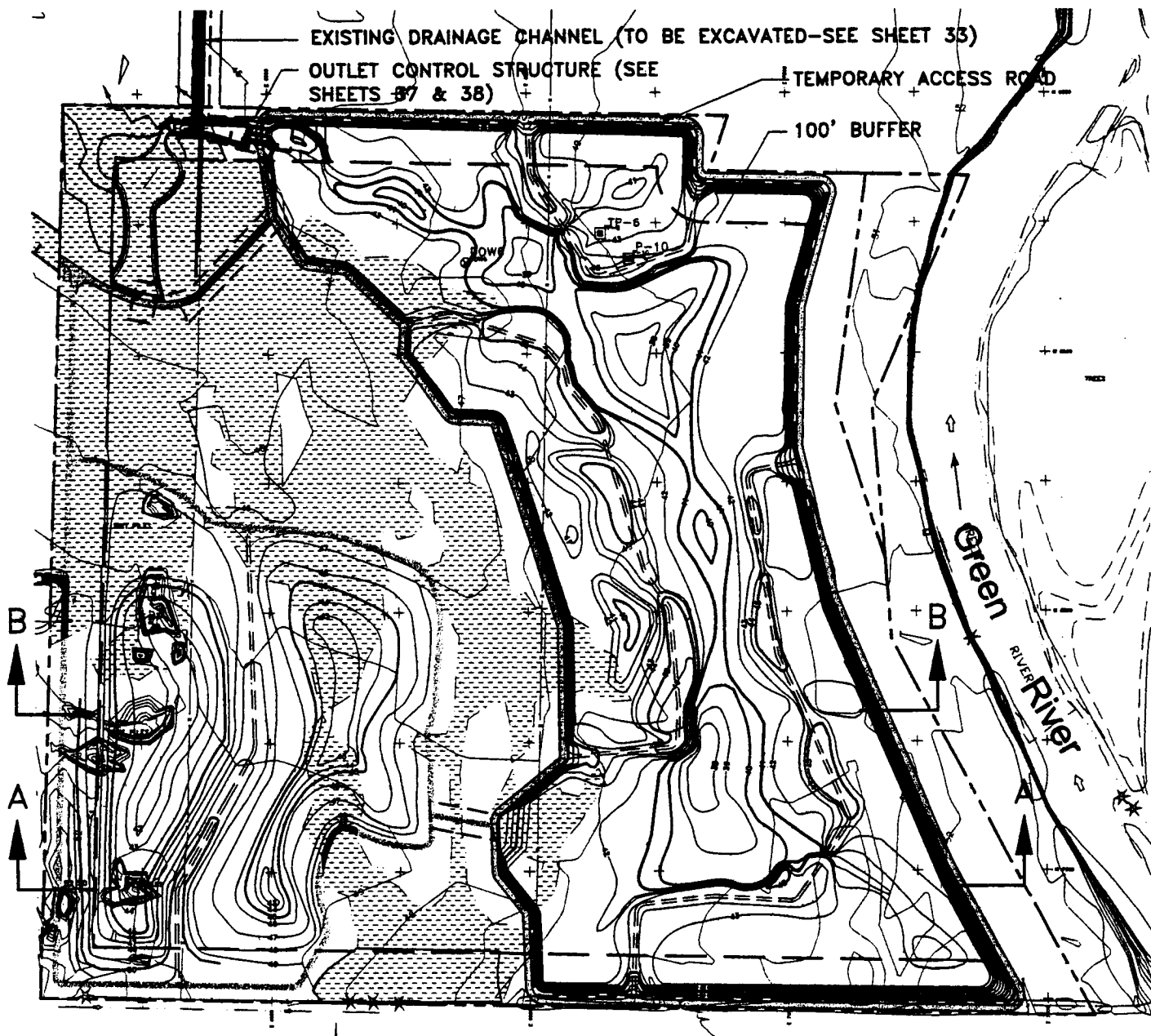
0 300'

SCALE: 1" = 200'

LOCATION OF BUFFER TO BE PLACED IN RESTRICTIVE COVENANT ON EAST BRANCH OF DES MOINES CREEK

IN: SECTION 4,5 TOWNSHIP 22N, RANGE 5E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 31 OF 38 NOVEMBER 2000

AR 008654



# **LEGEND:**

- 100' BUFFER
- - - - SITE BOUNDARY (APPROXIMATE)
- 50- PROPOSED GRADE
- 50- EXISTING GRADE

- WETLAND IMPACTED PERMANENT ACCESS ROADS
- EXISTING WETLAND

AR 008655

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

DATUM: NGVD 29/AUBURN  
96-4-02325

PLAN VIEW



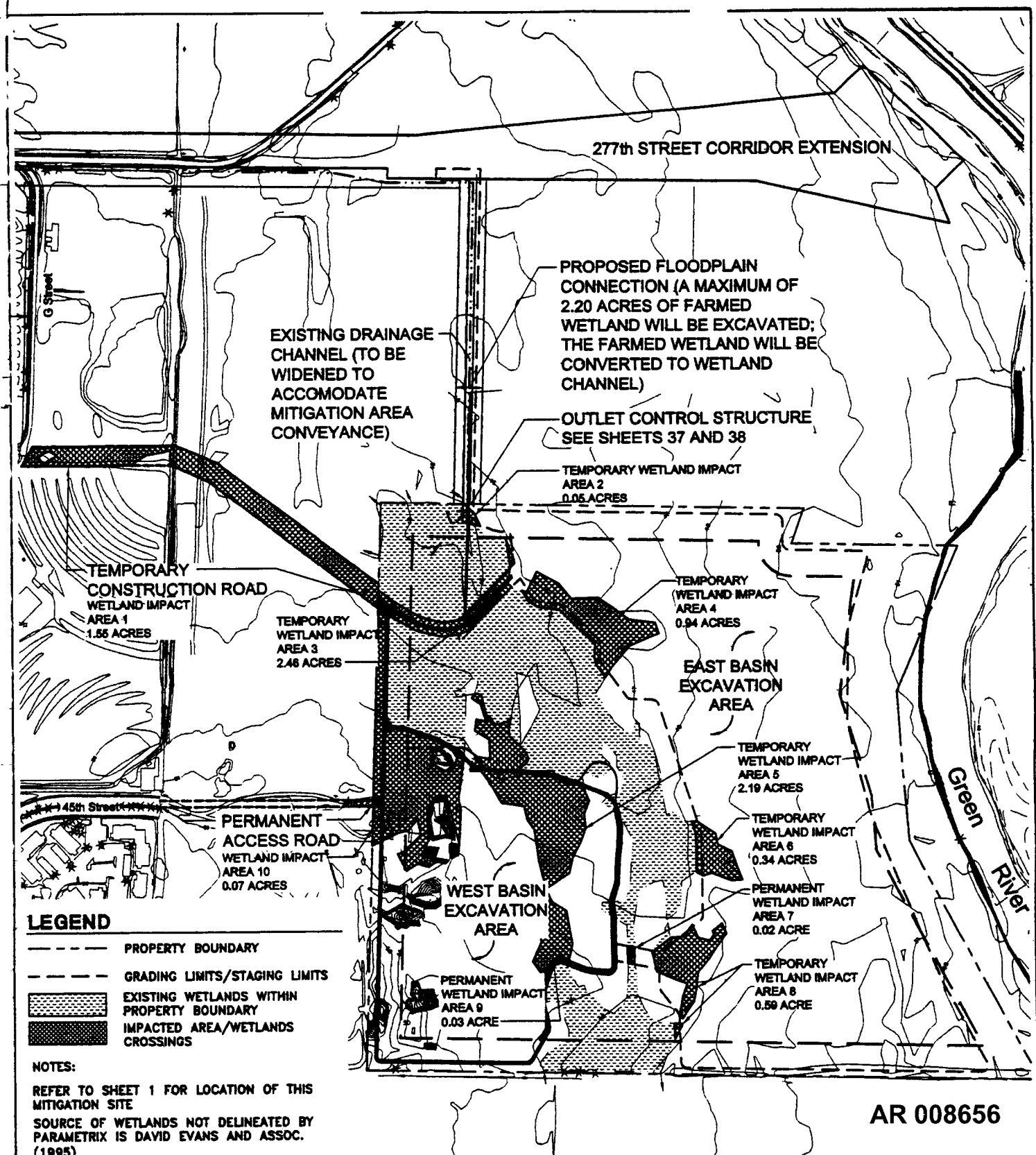
0 300'

SCALE: 1"=300'

OFF-SITE WETLAND MITIGATION AND GRADING PLAN

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 32 OF 38 NOVEMBER 2000

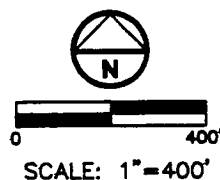




**PURPOSE:** MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

**DATUM:** NGVD 29/AUBURN  
96-4-02325

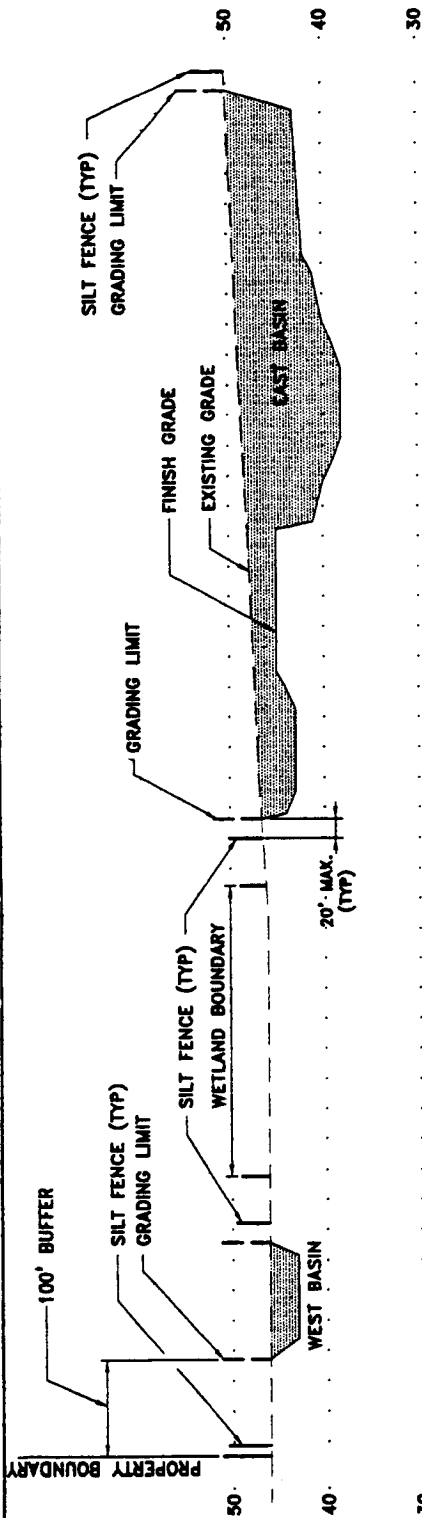
**PLAN VIEW**



**LOCATION OF TEMPORARY/PERMANENT WETLAND IMPACTS, AUBURN MITIGATION SITE**

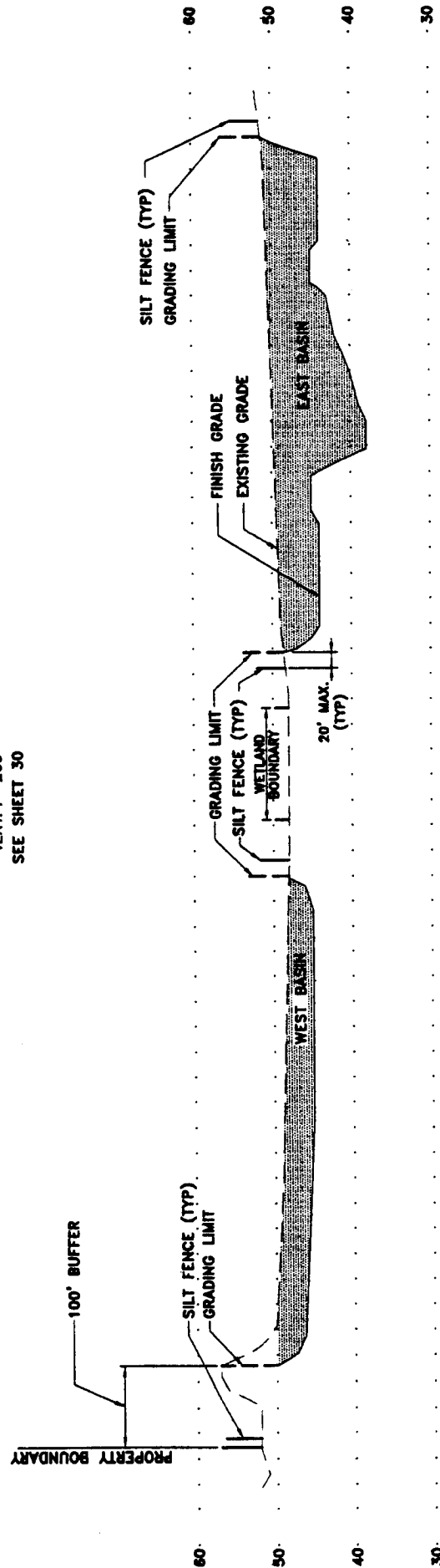
IN: SECTION 31, TOWNSHIP 22N, RANGE 5E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 33 OF 38 NOVEMBER 2000





### SECTION A

HORIZ: 1"=20'  
VERT: 1"=200'  
SEE SHEET 30

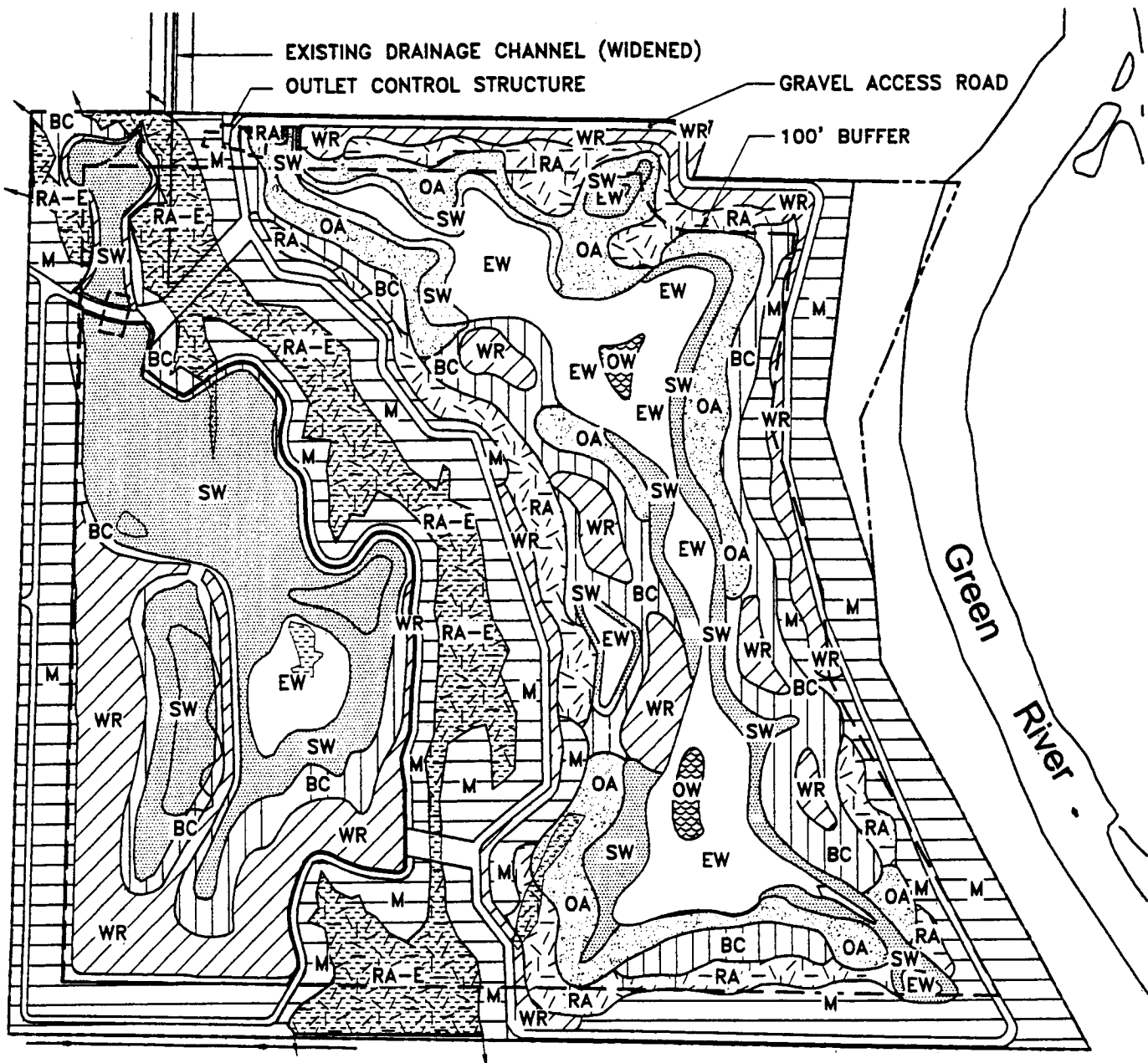


### SECTION B

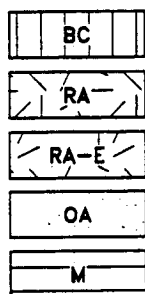
HORIZ: 1"=20'  
VERT: 1"=200'  
SEE SHEET 30

AR 008657

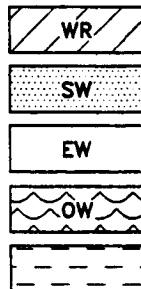
<p>PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND</p> <p>DATUM: NGVD 29/AUBURN</p> <p>96-4-02325</p>	<p>CROSS SECTION</p> <p>SCALE AS SHOWN</p>	<p>PROPOSED GRADING FOR OFF-SITE WETLAND MITIGATION, CROSS SECTION</p> <p>IN: SECTION 20, TOWNSHIP 23N, RANGE 4E COUNTY OF: KING STATE OF: WA APPLICATION BY: PORT OF SEATTLE SHEET 34 OF 38 NOVEMBER 2000</p>
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# **LEGEND:**



BLACK COTTONWOOD/WILLOW  
RED ALDER/SALMONBERRY  
RED ALDER ENHANCEMENT  
OREGON ASH/SLOUGH SEDGE  
MIXED FOREST



WESTERN REDCEDAR  
SHRUB WETLAND  
EMERGENT WETLAND  
OPEN WATER/NON-VEGETATED  
EXISTING WETLAND

AR 008658

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

DATUM: NGVD 29/AUBURN  
96-4-02325

PLAN VIEW



0 300'

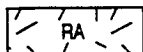
SCALE: 1"=300'

PROPOSED PLANT ASSOCIATIONS  
FOR THE WETLAND MITIGATION SITE

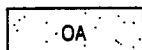
IN: SECTION 31, TOWNSHIP 22N, RANGE 5E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 35 OF 38 NOVEMBER 2000

**Black Cottonwood/Willow Plant Association**

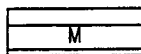
Trees	<i>Fraxinus latifolia</i>	Oregon ash
	<i>Populus trichocarpa</i>	Black cottonwood
	<i>Alnus rubra</i>	Red alder
	<i>Salix lasiandra</i>	Pacific willow
	<i>Picea sitchensis</i>	Sitka spruce
Shrubs	<i>Lonicera involucrata</i>	Twinberry
	<i>Rosa nutkana</i>	Nootka rose
	<i>Salix sitchensis</i>	Sitka willow
	<i>Pyrus fusca</i>	Western crabapple
	<i>Physocarpus capitatus</i>	Pacific ninebark
	<i>Salix hookeriana</i>	Hooker's willow

**Red Alder/Salmonberry Plant Association**

Trees	<i>Fraxinus latifolia</i>	Oregon ash
	<i>Populus trichocarpa</i>	Black cottonwood
	<i>Alnus rubra</i>	Red alder
	<i>Salix lasiandra</i>	Pacific willow
	<i>Thuja plicata</i>	Western redcedar
Shrubs	<i>Cornus stolonifera</i>	Red-osier dogwood
	<i>Lonicera involucrata</i>	Twinberry
	<i>Rubus spectabilis</i>	Salmonberry
	<i>Rosa nutkana</i>	Nootka rose
	<i>Pyrus fusca</i>	Western crabapple

**Oregon Ash Plant Association**

Trees	<i>Fraxinus latifolia</i>	Oregon ash
	<i>Populus trichocarpa</i>	Black cottonwood
	<i>Alnus rubra</i>	Red alder
	<i>Salix lasiandra</i>	Pacific willow
Shrubs	<i>Lonicera involucrata</i>	Twinberry
	<i>Rosa nutkana</i>	Nootka rose
	<i>Rubus spectabilis</i>	Salmonberry

**Mixed Forest Plant Association**

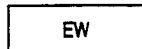
Trees	<i>Populus trichocarpa</i>	Black cottonwood
	<i>Alnus rubra</i>	Red alder
	<i>Pseudotsuga menziesii</i>	Douglas fir
	<i>Acer macrophyllum</i>	Bigleaf maple
	<i>Rhamnus purshiana</i>	Cascara
	<i>Thuja plicata</i>	Western redcedar
	<i>Crataegus douglasii</i>	Black hawthorn
Shrubs	<i>Acer circinatum</i>	Vine maple
	<i>Amelanchier alnifolia</i>	Serviceberry
	<i>Rosa gymnocarpa</i>	Bald-hip rose
	<i>Cornus stolonifera</i>	Red-osier dogwood
	<i>Pyrus fusca</i>	Western crabapple
	<i>Rubus parviflorus</i>	Thimbleberry
	<i>Corylus cornuta</i>	California filbert
	<i>Oemleria cerasiformis</i>	Indian plum

**Western Redcedar Plant Association**

Trees	<i>Populus trichocarpa</i>	Black cottonwood
	<i>Alnus rubra</i>	Red alder
	<i>Abies grandis</i>	Grand fir
	<i>Pseudotsuga menziesii</i>	Douglas fir
	<i>Acer macrophyllum</i>	Bigleaf maple
	<i>Rhamnus purshiana</i>	Cascara
	<i>Thuja plicata</i>	Western redcedar
Shrubs	<i>Acer circinatum</i>	Vine maple
	<i>Physocarpus capitatus</i>	Pacific ninebark
	<i>Salix scouleriana</i>	Scouler's willow
	<i>Cornus stolonifera</i>	Red-osier dogwood
	<i>Pyrus fusca</i>	Western crabapple
	<i>Oemleria cerasiformis</i>	Indian plum

**Shrub Wetland**

<i>Lonicera involucrata</i>	Twinberry
<i>Cornus stolonifera</i>	Red-osier dogwood
<i>Salix hookeriana</i>	Hooker's willow
<i>Salix lasiandra</i>	Pacific willow
<i>Salix sitchensis</i>	Sitka willow

**Emergent Wetland**

<i>Carex rostrata</i>	Beaked sedge
<i>Eleocharis palustris</i>	Spike-rush
<i>Oenanthe sarmentosa</i>	Water-parsley
<i>Polygonum amphibium</i>	Water smartweed
<i>Scirpus acutis</i>	Hardstem bulrush
<i>Scirpus microcarpus</i>	Small-fruited bulrush
<i>Sparganium emersum</i>	Narrow-leaf burreed

**AR 008659**

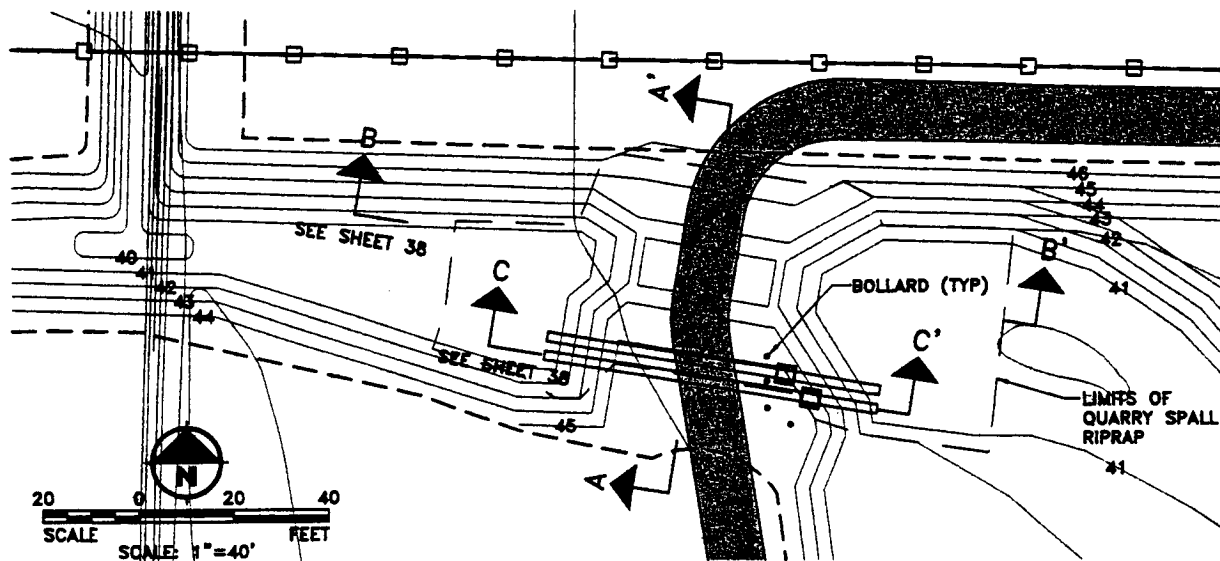
Port of Seattle/556-2912-001/01(03) 10/00

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

96-4-02325

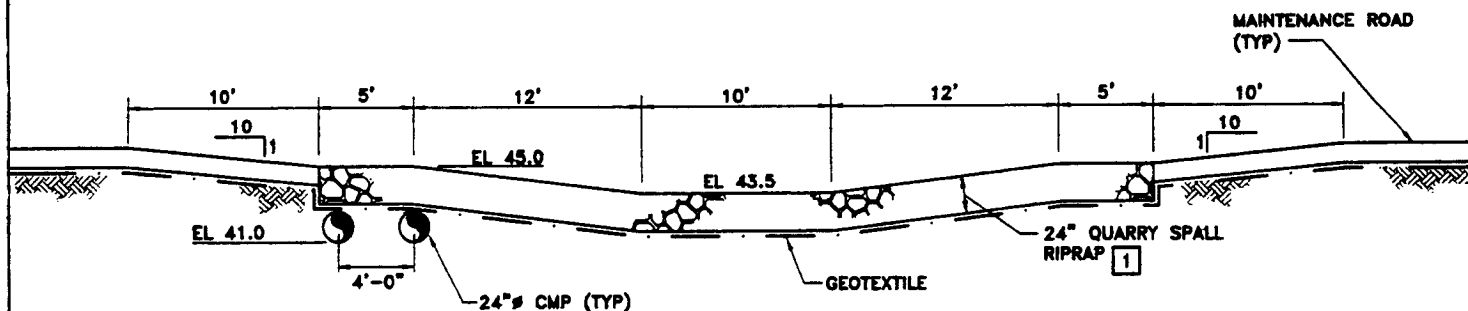
**TABLE****PLANT SPECIES FOR OFF-SITE  
WETLAND MITIGATION**

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E  
COUNTY OF: KING STATE: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 36 of 38 NOVEMBER 2000



OVERFLOW AND WATER LEVEL CONTROL STRUCTURES  
PLAN

1"=40'



SECTION A-A'

HORIZ: 1"=5'  
VERT: 1"=5'

NOTE:

- 1 APPLY CRUSHED SURFACING TO THE UPPER 3" OF QUARRY SPALLS WITHIN THE MAINTENANCE ROAD LIMITS. TAPER MAINTENANCE ROAD INTO QUARRY SPALL LIMITS.
- 2 SEE SHEET 33 FOR LOCATION OF OUTLET CONTROL STRUCTURE.

AR 008660

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

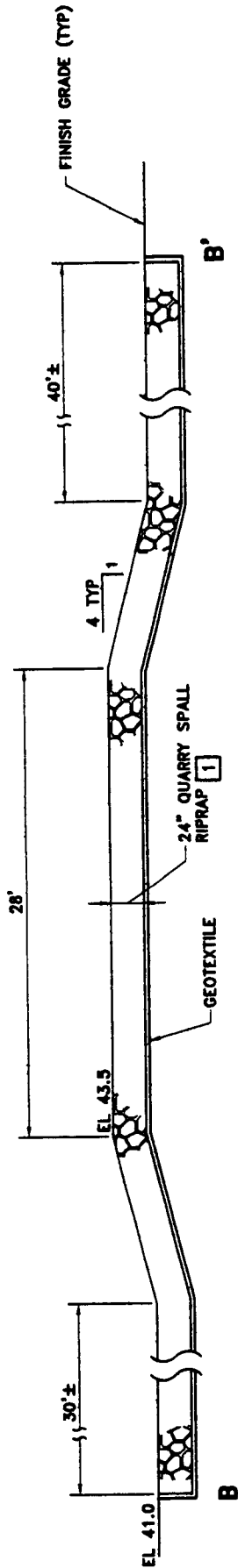
DATUM: NGVD 29/AUBURN  
96-4-02325

PLAN AND SECTION VIEWS

SCALE AS SHOWN

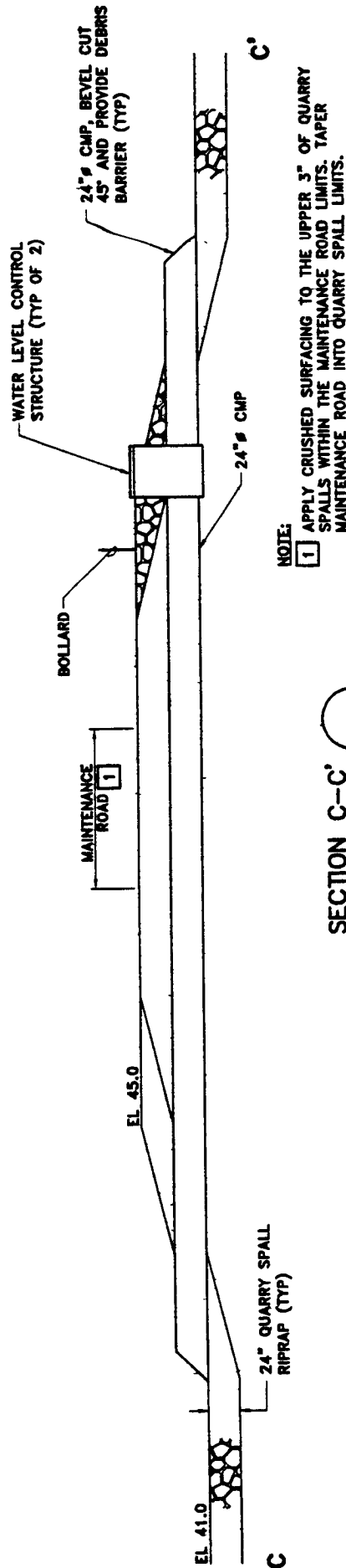
OUTLET CONTROL STRUCTURE AT  
OFF-SITE WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 37 OF 38 NOVEMBER 2000



NOTE:  
 1 APPLY CRUSHED SURFACING TO THE UPPER 3" OF QUARRY SPALLS WITHIN THE MAINTENANCE ROAD LIMITS. TAPER MAINTENANCE ROAD INTO QUARRY SPALL LIMITS.

SECTION B-B'  
 1"=5'



NOTE:  
 1 APPLY CRUSHED SURFACING TO THE UPPER 3" OF QUARRY SPALLS WITHIN THE MAINTENANCE ROAD LIMITS. TAPER MAINTENANCE ROAD INTO QUARRY SPALL LIMITS.

SECTION C-C'  
 1"=5'

AR 008661

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

DATUM: NGVD 29/AUBURN

96-4-02325

CROSS SECTION

OUTLET CONTROL STRUCTURE AT OFF-SITE WETLAND MITIGATION

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E  
 COUNTY OF: KING STATE OF: WA  
 APPLICATION BY: PORT OF SEATTLE  
 SHEET 38 OF 38 NOVEMBER 2000

SCALE AS SHOWN

**ATTACHMENT A**  
**Property Owners Other Than the Port of Seattle**

Set forth below is a list of owners, other than the Port of Seattle, of property located within the area that roughly comprises the Seattle-Tacoma International Airport Master Plan Update improvements.

Address
Alaska Airlines 18724 Des Moines Memorial Drive SeaTac, WA 98148
Alaska Airlines 18801 Des Moines Memorial Dr. SeaTac, WA 98148
Alaska Airlines 18632 Des Moines Memorial Dr. SeaTac, WA 98148
No Site Address on fourth parcel.
All American Homes Inc. 18624 12 <sup>th</sup> Ave. S. Seattle, WA 98148
All American Homes Inc. 1221 S. 188 <sup>th</sup> St. Seattle, WA 98148 206-244-6400
Sulayman Aman 15804 Des Moines Memorial Drive SeaTac, WA 98148 206-248-3743
Jerold Armstrong 1302 S. 196th Pl. SeaTac, WA 98148
Danilo and Carolyn Avis 1015 S. 147 <sup>th</sup> Street Seattle, WA 98168
Avis Rent-A-Car 18811 16 <sup>th</sup> Ave. S. Seattle, WA 98148
Leonita Berda 813 157 <sup>th</sup> Place Seattle, WA 98148 206-431-0457

Address
Robert Bjorneby 18800 Des Moines Memorial Drive SeaTac, WA 98148
Robert Bjorneby 1273 188 <sup>th</sup> St. Seattle, WA 98148 206-824-1404
Robert Bjorneby 1265 S. 188 <sup>th</sup> St. Seattle, WA 98148
Steve C. Blasenbauer 1308 S. 196th Pl. SeaTac, WA 98148
Cheryl M. Byers 15429 10th Ave. S. SeaTac, WA 98148 206-244-5249
Ron and Laurie Chick 1026 S. 160th St. SeaTac, WA 98148
Annabelle Christie No Site Address
Sho Mei Chu 18441 Des Moines Memorial Dr. SeaTac, WA 98148
Sho Mei Chu 18429 Des Moines Memorial Dr. SeaTac, WA 98148
No Site Address on third parcel.
Dale Conradi 16035 12 <sup>th</sup> Ave. S. SeaTac, WA 98148 206-242-1416
Mandrid R. Dettler 16223 8th Ave S. SeaTac, WA 98148
Steven Desimore 14635 Des Moines Memorial Drive Burien, WA 98148 206-246-3237

Address
William F. Eisiminger 15028 Des Moines Memorial Dr. SeaTac, WA 98148 206-632-1234
William F. Eisiminger 15016 Des Moines Memorial Dr. SeaTac, Wa 98148
William F. Eisiminger 1003 S. 150 <sup>th</sup> St. SeaTac, WA 98148
Warren Farmer No Site Address
Charlotte Faulkner 801 S. 148 <sup>th</sup> St. Seattle, WA 98168 206-242-6260
Joseph and Heather Ferguson 14712 8th Ave. S. Seattle, WA 98148
Kenneth Finke 805 S. 147 <sup>th</sup> St. Seattle, WA 98168 206-244-4254
Susan Fisher 821 S. 148 <sup>th</sup> St. Seattle, WA 98168 206-439-9427
Edward Froiland 206-242-5038 No Site Address
Robert Furney 15722 10 <sup>th</sup> Ave. S. Seattle, WA 98148 206-243-0109
Daniel and Shelley Gaines 1003 S. 147 <sup>th</sup> Street Seattle, WA 98168
Bradley Gehring 16205 12 <sup>th</sup> Ave. S. SeaTac, WA 98148



Address
Anthony Genzale, Trustee 154045 Des Moines Memorial Drive Burien, WA 98148 206-244-5295
David Gwinn 18451 Des Moines Memorial Drive SeaTac, WA 98148 206-284-1452 (Owns 2 parcels with same address.)
Harold Hardwick 1013 S. 160th St. SeaTac, WA 98148
Hertz Realty Corp. 18625 Des Moines Memorial Drive SeaTac, WA 98148
Highline School District 1410 S. 200 St. Seattle, WA 98148 (Owns two parcels)
IAC Seattle, III L.L.C. No Site Address
John Jovanovich 15636 Des Moines Memorial Drive SeaTac, WA 98148 206-242-9399
King County No Site Address
Pegi Kobela 632 S. 168th St. SeaTac, WA 98148 206-246-6666
Robert Lane 14711 8 <sup>th</sup> Ave. S. Burien, WA 98148 206-242-8287
Dorothy Lavictoire 2512 S. 209 <sup>th</sup> Place Des Moines, WA 98148
Mark Loftus 16207 8th Ave. S. SeaTac, WA 98148 206-248-0457
William Looney (Owns 3 parcels) No Site Address

AR 008665

Address
Alfredo and Roberta Lopez 16433 12 <sup>th</sup> Ave. S. SeaTac, WA 98148 206-241-1588
Gary Maclellan 16033 12 <sup>th</sup> Ave. S. SeaTac, WA 98148
Melvin and Bonnie Markham 17315 12th Ave. S. SeaTac, WA 98148
Scott McBreen 15458 Des Moines Memorial Drive SeaTac, WA 98148 206-244-8116
William McCabe 15653 12 <sup>th</sup> Ave. S. Seattle, WA 98148
c/o Alva H. McCartor III 1254 S. 196 <sup>th</sup> Pl. SeaTac, WA 98148
Jeff McClung 16623 8th Ave. S. SeaTac, WA 98148 206-246-5372
Bruce and Cathy McClure 14706 8th Ave. S. Burien, WA 98168
Bertha McGibbon 829 S. 148 <sup>th</sup> St. Burien, WA 98168 206-243-7517
Fred McGibbon 835 S. 148 <sup>th</sup> St. Burien, WA 98168 206-243-7517
Janice McGibbon 834 S. 148th St. Burien, WA 98168
David Nelson, et. al 206-243-3418 No Site Address
David Nelson Tracy McAvoy 1034 S. 150 <sup>th</sup> St. SeaTac, WA 98148

AR 008666

Address
David V. Nelson 1031 S. 158 <sup>th</sup> St. Seattle, WA 98148 206-243-3418
Ngu Thanh Nguyen 14808 8 <sup>th</sup> Ave. S. Seattle, WA 98168
Scott Holland Niemi No Site Address
Curtis Olson 16455 8th Ave. S. SeaTac, WA 98148
Ferenc Orban 1009 S. 171 <sup>st</sup> St. SeaTac, WA 98148
Pacific Gulf Properties 19003 16 <sup>th</sup> Ave. S. Seattle, WA 98148
Kingston Peters (Owns 3 parcels) No Site Address
Thomas D. Ponder 15441 12 <sup>th</sup> Ave. S. SeaTac, WA 98148 206-246-7426
Jerry Raver 14555 Des Moines Memorial Drive Burien, WA 98148 206-246-4909
Robb and Cara Rankin 830 S. 148th St. Burien, WA 98148 206-241-6090
Donald Rottler 16255 8th Ave S. SeaTac, WA 98148

AR 008667

Address
RST Enterprises Inc. 15446 Des Moines Memorial Dr. SeaTac, WA 98148
RST Enterprises Inc. 15418 Des Moines memorial Dr. SeaTac, WA 98148
RST Enterprises Inc. 15416 Des Moines Memorial Dr. SeaTac, WA 98148
Gene and Cynthia Rubbert 816 S. 148 <sup>th</sup> Burien, WA 98148
Joseph Sacco et al. 1033 171st St. SeaTac, WA 98148
Frank Scarsella 16823 8 <sup>th</sup> Ave. S. SeaTac, WA 98148 206-244-7149
Ida Scarsella 16252 Des Moines Memorial Drive SeaTac, WA 98148
Charles A. Schuh 1006 174 <sup>th</sup> St. SeaTac, WA 98148 206-243-1494
Seattle City Light 15002 8 <sup>th</sup> Ave. S. Burien, WA 98148
Benjamin and Kiyoshi Seike 14634 Des Moines Memorial Drive SeaTac, WA 98148 206-242-6559
V. L. Snell 818 S. 148th St. Burien, WA 98168 206-243-6088
Pyong Chun So 16062 Des Moines Memorial Drive SeaTac, WA 98148

AR 008668

Address
<p>Spieker Properties 18902 13<sup>th</sup> Pl. S. SeaTac, WA 98148</p>
<p>Spieker Properties 19002 Des Moines Memorial Dr. SeaTac, WA 98148</p>
<p>Spieker Properties 19010 Des Moines Memorial Dr. SeaTac, WA 98148</p>
<p>Ben Stark (Owns 5 parcels) No Site Address</p>
<p>Elizabeth Stump 2020 S. 216<sup>th</sup> St. Des Moines, WA 98148</p>
<p>Robert Thompson 14628 11<sup>th</sup> Ave. S. Seattle, WA 98168 206-431-0451</p>
<p>Charles W. Tucker 15217 Des Moines Memorial Drive Burien, WA 98148 206-824-1731</p>
<p>Steven Turner, et. Al 15051 Des Moines Memorial Drive Burien, WA 98148</p>
<p>Beverly Tyler 1052 S. 170<sup>th</sup> St. SeaTac, WA 98148 206-243-2194</p>
<p>U.S. West 1880 Des Moines Memorial Dr. SeaTac, WA 98148</p>
<p>Van Orson Family Trust No Site Address</p>
<p>David Vistaunet 808 S. 152<sup>nd</sup> St. Burien, WA 98148</p>

Address
Gary Von Wald 1018 S. 170 <sup>th</sup> St. Seattle, WA 98148 206-242-6926
Gary Von Wald 1103 S. 168 <sup>th</sup> St. Seattle, WA 98148
Lee Warner 849 S. 164 <sup>th</sup> St. SeaTac, WA 98148 206-242-1452
Washington State (Owns 11 parcels) No Site Address
Weona Bldg. Corp. 18634 Des Moines Memorial Drive Seattle, WA 98148
Kenneth Williams No Site Address
Charles W. Winter, Jr. 15041 Des Moines Memorial Drive Burien, WA 98148
Everett Woods 16845 8 <sup>th</sup> Ave. S. SeaTac, WA 98148
Everett Woods 653 S. 168 <sup>th</sup> St. SeaTac, WA 98148
Everett Woods 16807 8 <sup>th</sup> Ave. S. SeaTac, WA 98148
Everett Woods 16867 8 <sup>th</sup> Ave. S. SeaTac, WA 98148
No Site Address for fifth parcel.
Martin Zink 16247 8th Ave. S. SeaTac, WA 98148

AR 008670

## ATTACHMENT B

Quarter Section	Section	Township	Range
NE, SE, SW	S20	T23N	R4E
NW, NE, SE, SW	S21		
NW, NE, SE, SW	S28		
NW, NE, SE, SW	S29		
NE, SE	S32		
NW, NE, SE, SW	S33		
NW, NE, SE, SW	S4	T22N	R4E
NE, SE	S5		
NW	S9		
NW, NE, SE, SW	S31	T22N	R5E

AR 008671

**ATTACHMENT C**  
**Tax Parcel Numbers**

Set forth below are the tax parcel numbers for the property that roughly comprises the Seattle-Tacoma International Airport Master Plan Update (MPU) improvements. For a drawing of the MPU properties, please see Figure 3-1 of the *Biological Assessment, Master Plan Update Improvements, Seattle-Tacoma International Airport (Parametrix June 2000)*.

<u>Tax Parcel Nos.</u>	<u>Tax Parcel Nos.</u>	<u>Tax Parcel Nos.</u>	<u>Tax Parcel Nos.</u>
000420 000507	122550 020004	202304 904602	202304 915608
000420 000500	175300 001005	202304 904701	202304 915905
000420 000606	194540 000503	202304 905005	202304 916408
001200 000501	194540 001006	202304 905807	202304 916606
001200 001004	194540 001501	202304 906102	202304 916804
001200 001103	194540 002004	202304 906201	202304 917406
042204 900500	194540 002509	202304 906508	202304 918206
042204 910300	194540 003002	202304 906706	202304 918305
042204 913000	194540 003507	202304 906805	202304 918404
042204 913604	194540 004000	202304 907100	202304 919402
042204 918600	194540 004505	202304 907407	202304 919600
042204 921607	194540 005007	202304 907704	202304 921408
042204 922500	194540 005502	202304 907803	202304 921507
052204 906805	194540 006005	202304 908108	202304 922901
092204 900900	194540 006500	202304 908306	202304 923008
092204 904200	194540 007003	202304 908900	202304 923404
092204 910803	194540 007508	202304 909007	202304 926100
092204 926200	194540 008001	202304 909106	202304 926902
092204 926300	194540 008506	202304 909403	202304 927009
092204 928300	194540 009009	202304 909908	202304 927405
092204 930300	194540 009504	202304 910005	202304 927504
100200 015509	194540 010007	202304 910500	202304 927801
122550 001004	194540 010502	202304 911003	202304 928106
122550 007001	194540 011005	202304 912209	202304 928304
122550 008009	194540 011500	202304 912407	202304 928403
122550 009007	194540 012003	202304 912506	202304 928502
122550 010005	194540 012508	202304 913009	202304 929500
122550 011003	194540 013001	202304 913207	202304 929700
122550 012001	194540 013506	202304 913603	202304 929807
122550 013009	194540 014009	202304 914304	202304 930003
122550 014007	202304 900204	202304 914403	202304 930201
122550 015004	202304 900402	202304 914700	202304 930300
122550 016002	202304 901301	202304 914908	202304 930904
122550 017000	202304 904305	202304 915004	202304 931001
122550 018008	202304 904404	202304 915202	202304 931200
122550 019006	202304 904503	202304 915400	202304 932108



<u>Tax Parcel Nos.</u>	<u>Tax Parcel Nos.</u>	<u>Tax Parcel Nos.</u>	<u>Tax Parcel Nos.</u>
202304 932405	202304 952908	292304 911103	292304 938403
202304 932504	202304 953005	292304 911202	292304 939005
202304 933304	202304 953104	292304 911800	292304 939609
202304 934005	202304 954508	292304 912408	292304 939807
202304 934708	202304 954607	292304 913109	292304 940102
202304 936208	212304 901800	292304 914503	292304 940508
202304 936505	212304 903700	292304 915005	292304 940904
202304 936901	212304 920200	292304 915104	292304 941100
202304 937107	212304 938200	292304 916508	292304 941209
202304 938105	212304 940400	292304 916904	292304 941308
202304 939608	232380 007500	292304 918207	292304 941407
202304 939905	232380 008500	292304 918405	292304 941704
202304 940309	278240 000507	292304 918603	292304 942207
202304 940408	278240 006504	292304 918702	292304 942405
202304 940507	278240 013005	292304 919205	292304 942801
202304 940606	278240 022501	292304 919601	292304 943106
202304 940705	278240 024507	292304 919809	292304 943205
202304 940804	278240 025009	292304 920104	292304 943304
202304 940903	282304 901600	292304 921201	292304 944104
202304 941000	282304 905300	292304 922704	292304 944401
202304 941109	282304 918700	292304 923009	292304 945101
202304 941208	282304 919100	292304 923405	292304 945200
202304 941901	292304 900502	292304 924205	292304 945606
202304 942503	292304 900601	292304 924304	292304 946000
202304 942602	292304 901104	292304 925301	292304 946208
202304 942701	292304 902904	292304 925509	292304 946703
202304 942800	292304 904009	292304 926606	292304 947206
202304 943105	292304 904306	292304 926804	292304 947602
202304 943501	292304 904405	292304 927000	292304 947701
202304 943600	292304 904504	292304 927208	292304 947800
202304 945308	292304 905204	292304 929402	292304 948006
202304 945407	292304 905402	292304 929709	292304 948204
202304 945506	292304 905600	292304 930004	292304 948400
202304 945704	292304 905808	292304 930202	292304 948501
202304 946009	292304 905907	292304 931309	292304 948600
202304 946207	292304 906004	292304 931804	292304 948709
202304 946405	292304 906103	292304 932000	292304 949103
202304 947700	292304 906301	292304 932109	307060 000500
202304 949607	292304 906806	292304 932901	307060 001000
202304 950100	292304 907903	292304 933206	307060 001500
202304 951207	292304 908505	292304 933404	307060 002500
202304 951306	292304 909305	292304 934105	316060 000500
202304 951405	292304 909800	292304 934808	316060 001500
202304 951504	292304 910006	292304 936100	316060 003000
202304 951603	292304 910105	292304 936704	322304 902008
202304 952205	292304 910709	292304 937405	322304 902107
202304 952809	292304 910808	292304 938007	322304 902206

<u>Tax Parcel Nos.</u>	<u>Tax Parcel Nos.</u>	<u>Tax Parcel Nos.</u>	<u>Tax Parcel Nos.</u>
322304 902404	369680 012506	384660 002500	432520 000500
322304 903303	369680 013009	384660 003003	433640 001007
322304 903400	369680 013504	384660 003508	433640 002005
322304 904806	369680 014502	384660 003607	433640 003003
322304 908906	369680 015004	384660 003706	433640 004001
322304 909003	369680 015509	384660 003805	433640 005000
322304 909240	371180 000502	384660 006000	433640 006006
322304 911702	371180 001005	384660 006500	433640 007004
322304 923004	371180 001500	384660 007004	433640 008002
322304 926304	371180 002003	384660 007509	433640 009000
322304 928201	371180 002508	384660 007608	433640 010008
322304 928607	371180 003001	384660 008002	433640 011006
322304 929308	371180 003506	384660 008507	433640 012004
322304 929506	381500 001007	384660 009000	433640 013002
322304 929605	381500 002005	384660 009109	433640 014000
322304 930306	381500 003003	384660 009208	433640 015007
322304 930405	381500 004001	384660 009505	433640 016005
322304 930603	381500 005008	384660 010008	433640 017003
322304 930702	381500 007004	384660 010206	433640 018001
322304 931304	381500 008002	384660 010305	433640 019009
322304 931403	381500 009000	384660 010404	440140 000504
322304 931500	381500 010008	384660 010503	440140 001007
332304 920801	381500 011006	384660 010602	440140 001502
338835 002000	381500 012004	384660 010701	440140 002005
360960 000500	381500 013002	384660 011303	440140 002500
369680 001004	381500 014000	384660 011402	440140 003003
369680 001509	381500 015007	384660 011501	440140 003508
369680 002507	381500 016005	384660 011600	440140 004001
369680 003000	381500 017003	384660 012004	440140 004506
369680 003505	381500 018001	384660 012509	440140 005008
369680 004008	381500 019009	384660 013002	440140 005500
369680 004503	381500 020007	384660 013101	443680 005500
369680 005005	381500 021005	384660 013507	515360 000506
369680 005609	381500 022003	384660 014000	515360 008509
369680 005708	381500 023001	384660 014505	515360 016500
369680 006508	382260 005006	384660 015403	515360 022500
369680 007001	384260 006109	384660 015502	525120 001009
369680 007506	384260 006505	384660 015601	610100 000500
369680 008009	384260 012107	384660 015700	638900 003002
369680 008504	384660 000504	392640 003001	666300 001003
369680 009007	384660 000603	392640 003506	666300 001102
369680 009502	384660 000702	392640 004009	666300 010200
369680 010005	384660 001106	392640 004504	725000 018509
369680 010500	384660 001205	392640 005006	725000 018608
369680 011003	384660 001304	392640 005501	725000 018707
369680 011508	384660 001403	392640 006509	725000 019507
369680 012001	384660 002005	392640 007002	725000 019606

<u>Tax Parcel Nos.</u>	<u>Tax Parcel Nos.</u>	<u>Tax Parcel Nos.</u>	<u>Tax Parcel Nos.</u>
725000 019705	768620 001500	810960 006502	
725000 020505	768620 004000	810960 007005	
725000 020604	768620 008000	810960 007500	
725000 020703	768620 012000	810960 007609	
725000 020800	768620 016000	896200 000504	
725000 021503	768620 044000	896200 005503	
725000 021602	768620 050000	896200 006006	
725060 000504	768620 056000	911900 000504	
725060 001007	768620 062000	911900 001007	
725060 001106	768620 068000	911900 001502	
725060 001205	768620 069000	911900 002005	
725060 001304	768620 070000	911900 002500	
725060 001908	768620 070500	911900 003003	
725060 002500	768620 098006	911900 003508	
725060 002708	768620 104002	911900 004001	
725060 003508	768620 152001	911900 004506	
725060 003607	768620 155509	912400 005000	
725060 003706	768720 004000	912400 006000	
725060 003805	768720 012501	932880 000504	
725060 003904	768720 018508	932880 001007	
725060 004605	768720 022005	932880 001502	
725060 005008	768720 026501	932880 002005	
725060 005503	768720 034550	932880 002500	
725060 005602	768720 042580	932880 003003	
725060 006501	768720 050501	932880 003508	
725060 006600	768720 058540	932880 004001	
725060 006709	768720 068000	932880 004506	
725060 007608	768720 070509	932880 005008	
725120 000502	768720 071600	932880 005503	
725120 001005	768720 075500	932880 006006	
725120 001500	768720 079500	947530 001018	
725120 001609	768720 087000		
725120 002003	768720 087500		
725120 002508	768720 095500		
725120 002607	768720 103500		
725120 004108	768720 111500		
725120 004504	772760 002000		
725120 004603	810960 000604		
725120 005501	810960 001503		
725120 005600	810960 002006		
725120 006509	810960 002501		
725120 007507	810960 003004		
725120 007606	810960 003509		
725120 007705	810960 004002		
729320 001000	810960 004507		
731760 000500	810960 005009		
755620 004500	810960 005504		
768620 000500	810960 006007		

## ATTACHMENT D

### Applications, Approvals, or Certifications from Federal, State, or Local Agencies

The following is a list of applications, approvals and certifications that are potentially involved for elements of the Seattle-Tacoma International Airport Master Plan Update improvements that are the subject of this JARPA. Depending on final design and other variables, this list may change.

Type of Approval	Issuing Agency	ID #	Date of Applicat'n	Date Approved	Work Completed?
Federal Aviation Administration					
- Issuance of NEPA/SEPA FEIS	FAA			2/96	Partially completed
- Issuance of NEPA/SEPA FSEIS	FAA			5/97	Partially completed
- Record of Decision	FAA			7/3/97	Partially completed
U.S. Army Corps of Engineers					
- Section 404 Permit	USCOE	96-4-02325	12/18/96 10/00		No
National Marine Fisheries Service; U.S. Fish & Wildlife Service					
- Endangered Species Act and related consultation	NMFS; USFWS				No
Wash. State Dept. of Ecology					
- 401 Water Quality Certification	Ecology	96-4-02325	12/19/97 9/22/99 10/00		No
- NPDES Permit	Ecology	WA002465-1		3/1/98	Partially completed
- NPDES Permit modification	Ecology	WA002465-1		1/25/99	Partially completed
- NPDES Permit modification	Ecology				No
- NPDES construction general permit for Auburn mitigation	Ecology				No
- Dam Safety Approval	Ecology				No
Wash. State Dept. of Fish & Wildlife					
- HPA for Miller Creek projects	WDFW		8/14/00		No
- HPA - Des Moines Creek projects	WDFW		8/14/00		No
- HPA for Auburn mitigation	WDFW	00-E6607-01		6/28/00	No
- HPA for SR 509 interchange	WDFW	00-E6606	6/14/00		No

Wash. State Dept. of Natural Resources					
- Forest Practices Permits	DNR	2407038		4/27/2000	Partially completed
	DNR	2407299		8/14/2000	
- Surface Mining Permit	DNR				No
Wash. State Governor's Clear Air and Water Certification	Governor			6-30-97	Partially completed
Puget Sound Regional Council					
- Adopt Resol. A-93-03	PSRC	A-93-03		4-29-93	Partially completed
- Adopt Resol. A-96-02	PSRC	A-96-02		7-11-96	Partially completed
Port of Seattle					
- Issuance of NEPA/SEPA FEIS	POS			2/96	Partially completed
- Issuance of NEPA/SEPA FSEIS	POS			5/97	Partially completed
- Adopt Resol. 3212	POS	Resol. 3212		8-1-96	Partially completed
- Adopt Resol. 3245	POS	Resol. 3245		5-27-97	Partially completed
City of SeaTac					
- Interlocal Agreement with POS	SeaTac			9/4/97	Partially completed
- Street vacations	SeaTac	Ord. 98-1044 Ord. 00-1023 Ord. 00-1039		10/13/98 6/13/00 8/8/00	Partially completed
- Haul permits	SeaTac	Various		Permits obtained as needed	Partially completed
City of Auburn					
- Shoreline permit exemption	Auburn			8/9/00	No
- Grading permit	Auburn				No
- Misc. construction-related permits	Auburn				No
City of Des Moines review re on-site borrow areas in Des Moines	Des Moines				No

**ATTACHMENT E**

**PORT OF SEATTLE  
ADJOINING PROPERTY OWNER MAILING LIST  
FOR PUBLIC NOTICE 96-4-02325  
OCTOBER, 2000**

**AR 008678**

1.  
  
Alexander, G  
860 S. 192nd St.  
SeaTac, WA 98188

Apartment Manager  
800 S. 160th St., #122  
Seattle, WA 98148

Armstrong, Jerold L.  
1302 S. 196th St.  
Seattle, WA 98148

Avis Rent A Car System Inc.  
18811 16th Ave. S.  
Seattle, WA 98188

Bacalzo, Ernest & Charlene  
21230 14th Ave. S.  
Des Moines, WA 98198

Bailey, Steven G.  
21437 14th Ave. S.  
Des Moines, WA 98198

Baker, William L.  
16421 Des Moines Memorial Dr.  
Seattle, WA 98148

Banks, Dorothy  
2602 S. 152nd St.  
Seattle, WA 98188

Beal, Debra Jean  
20127 15th Ave. S.  
Des Moines, WA 98198

Begtlinger, James R.  
21260 14th Ave. S.  
Des Moines, WA 98198

Beltron, Armando  
14630 Des Moines Memorial Dr. S.  
Seattle, WA 98148

Benda, Leonita  
813 S. 157th Pl.  
Seattle, WA 98148

Betenson, Thomas G. & Diane M.  
1419 S. 215th Pl.  
Des Moines, WA 98198

Biery, Alan K.  
21505 14th Ave. S.  
Des Moines, WA 98198

AR 008679

Blasenhauer, Steve C.  
1308 S. 196th St.  
Seattle, WA 98148

Boeing Company  
2201 S. 142nd St.  
SeaTac, WA 98188

Bonenko, Allen J. & Carol I.  
1232 S. 201st St.  
Des Moines, WA 98198

Bosteder, D. E.  
19903 13th Ave. S.  
Seattle, WA 98148

Boxtan, James  
20930 12th Ave. S.  
Des Moines, WA 98198

Brakus, Milton D.  
2828 S. 154th St.  
SeaTac, WA 98188

Brauch, Nancy L.  
1130 S. 167th Pl.  
Seattle, WA 98148

Brown, Robert S.  
1001 S. 168th St.  
Seattle, WA 98148

Brown, Steven Michael  
20732 14th Ave. S.  
SeaTac, WA 98198

Burrell, Tamara L; Ferguson James D  
2429 S. 208th St.  
Des Moines, WA 98198

Business Owner  
2803 S. 188th St.  
SeaTac, WA 98188

Business Owner  
18820 28th Ave. S.  
SeaTac, WA 98188

Business Owner  
16005 International Blvd.  
SeaTac, WA 98188

Business Owner  
16824 International Blvd.  
SeaTac, WA 98188



Business Owner  
17930 Pacific Hwy S.  
SeaTac, WA 98188

Business Owner  
18623 Pacific Hwy S.  
SeaTac, WA 98188

Business Owner  
19251 Des Moines Memorial Dr  
Seattle, WA 98148

Business Owner  
18902 13th Pl. S.  
Seattle, WA 98148

Business Owner  
19002 Des Moines Memorial Dr.  
Seattle, WA 98148

Business Owner  
19500 28th Ave. S.  
SeaTac, WA 98188

Business Owner  
19550 Pacific Highway S.  
SeaTac, WA 98188

Business Owner  
20211 28th Ave. S.  
SeaTac, WA 98188

Business Owner  
18500 Pacific Highway S.  
SeaTac, WA 98188

Business Owner  
15421 Des Moines Memorial Dr.  
Seattle, WA 98148

Business Owner  
17108 International Blvd.  
SeaTac, WA 98188

Business Owner  
19845 28th Ave. S.  
SeaTac, WA 98188

Business Owner  
15820 Pacific Hwy S.  
SeaTac, WA 98188

Business Owner  
17206 International Blvd.  
SeaTac, WA 98188

**AR 008681**

1.  
  
Business Owner  
15823 Pacific Hwy S.  
SeaTac, WA 98188

Business Owner  
15850 Pacific Hwy S.  
SeaTac, WA 98188

Business Owner  
15845 Pacific Hwy S.  
SeaTac, WA 98188

Business Owner  
15835 Pacific Hwy S.  
SeaTac, WA 98188

Business Owner  
15833 Pacific Hwy S.  
SeaTac, WA 98188

Business Owner  
16128 International Blvd. S.  
SeaTac, WA 98188

Business Owner  
16102 International Blvd. S.  
SeaTac, WA 98188

Butler, William T.; Moberg-Butler, Cla  
16203 Des Moines Memorial Dr.  
Burien, WA 98148

Calkins, Ronald L.  
2824 S. 154th St.  
SeaTac, WA 98188

Carlson, W. S.  
1233 S. 196th Pl.  
Seattle, WA 98148

Cary, R. C.  
1205 S. 196th St.  
Seattle, WA 98148

Casebolt, Mark  
15433 12th Ave. S.  
Seattle, WA 98148

Cassan Enterprises Inc.  
19500 28th Ave. S.  
SeaTac, WA 98188

Cassan, James T. or Business Owner  
15858 Pacific Hwy S.  
SeaTac, WA 98188

Chapdelaine, Laurel A.  
21222 14th Ave. S.  
Des Moines, WA 98198

Chavez, Eluterio  
1230 S. 200th St.  
Seattle, WA 98198

Chea, Saroeun  
2407 S. 208th St  
Seattle, WA 98198

Chevron Services Co.  
18514 International Blvd. S.  
SeaTac, WA 98188

Childress, R. L. & Eileen C.  
20700 25th Ave. S.  
Seattle, WA 98198

Chu Sho Mei  
18441 Des Moines Memorial Dr. S.  
Seattle, WA 98148

City of Auburn  
Attn: Jeff Dixon  
25 W. Main Street  
Auburn, WA 98001

Clarke, John G. & Mary E.  
20404 14th Ave. S.  
Des Moines, WA 98198

Combined Logistics USA Inc.  
855 S. 192nd Street  
Seattle, WA 98148

Condor Development LLC  
19333 Pacific Highway S.  
SeaTac, WA 98188

Conrad, Gregory S. & Tammy L.  
2416 S. 207th St.  
Des Moines, WA 98198

Cornejo, Adolfo & Evelyn  
20815 25th Ave. S.  
Des Moines, WA 98198

Crawford, Daniel J.  
1238 S. 196th St.  
Seattle, WA 98148

Current Resident  
1003 S. 150th St.  
Seattle, WA 98148

Current Resident  
16633 10th Ave. S.  
Seattle, WA 98148

Current Resident  
1039 S. 174th St.  
Seattle, WA 98148

Current Resident  
1219 S. 200th St.  
Des Moines, WA 98198

Current Resident  
20007 12th Pl. S.  
Des Moines, WA 98198

Current Resident  
1265 S. 188th St.  
Seattle, WA 98148

Current Resident  
1273 S. 188th St.  
Seattle, WA 98148

Current Resident  
15429 10th Ave. S.  
Seattle, WA 98148

Current Resident  
18435 Des Moines Memorial Dr.  
Seattle, WA 98148

Current Resident  
18441 Des Moines Memorial Dr.  
Seattle, WA 98148

Current Resident  
20405 25th Lane S.  
Des Moines, WA 98198

Current Resident  
15439 12th Ave. S.  
Seattle, WA 98148

Current Resident  
15045 Des Moines Memorial Dr.  
Seattle, WA 98148

Current Resident  
15225 12th Ave. S.  
Seattle, WA 98148

Current Resident  
15446 10th Ave. S.  
Seattle, WA 98148

1.1  
  
Current Resident  
20111 15th Ave. S.  
Des Moines, WA 98198

Current Resident  
20501 26th Pl. S.  
Des Moines, WA 98198

Current Resident  
20103 15th Ave. S.  
Des Moines, WA 98198

Current Resident  
17309 12th Ave. S.  
Seattle, WA 98148

Current Resident  
21225 18th Ave. S.  
Des Moines, WA 98198

Current Resident  
1212 S. 196th St.  
Seattle, WA 98148

Current Resident  
16545 Des Moines Memorial Dr.  
Seattle, WA 98148

Current Resident  
16215 Des Moines Memorial Dr.  
Seattle, WA 98148

Current Resident  
16454 8th Ave. S.  
Seattle, WA 98148

Current Resident  
20134 15th Ave. S.  
Des Moines, WA 98198

Current Resident  
1418 S. 204th St.  
Des Moines, WA 98198

Current Resident  
20011 26th Ave. S.  
Des Moines, WA 98198

Current Resident  
849 S. 164th St.  
Seattle, WA 98148

Current Resident  
19659 Des Moines Memorial Dr.  
Seattle, WA 98148

**AR 008685**

1.  
  
Current Resident  
20434 14th Ave. S.  
Des Moines, WA 98198

Current Resident  
16255 8th Ave. S.  
Seattle, WA 98148

Current Resident  
20830 25th Ave. S.  
Des Moines, WA 98198

Current Resident  
20738 14th Ave. S.  
Des Moines, WA 98198

Current Resident  
16876 8th Ave. S.  
Seattle, WA 98148

Current Resident  
16807 8th Ave. S.  
Seattle, WA 98148

Current Resident  
16872 8th Ave. S.  
Seattle, WA 98148

Current Resident  
2825 S. 154th St.  
SeaTac, WA 98188

Current Resident  
21215 15th Ave. S.  
Des Moines, WA 98198

Current Resident  
15653 12th Ave. S.  
Seattle, WA 98148

Current Resident  
19619 12th Pl. S.  
Seattle, WA 98148

Cutler, Michael  
2606 S. 150th  
SeaTac, WA 98188

Dang, Ngoc An; ha Hang, Mythi  
1425 S. 215th Pl.  
Des Moines, WA 98198

Davis, Laureen M.  
2705 S. 194th St.  
SeaTac, WA 98188

De Jesus, Lao Manuel  
20012 12th Pl. S.  
Des Moines, WA 98198

Des Moines Way – Mini Storage  
14460 Des Moines Memorial Dr. S.  
Seattle, WA 98148

Desimone, Steve  
14635 Des Moines Memorial Dr. S.  
Seattle, WA 98168

Desisto, Gennaro  
15116 32nd Lane  
SeaTac, WA 98188

Devaney, Jacqueline L.  
1303 S 208th St  
Des Moines, WA 98198

Dick's Towing  
2012 S. 146th St.  
SeaTac, WA 98168

Dunlap, H E  
19616 Des Moines Memorial Dr.  
Seattle, WA 98148

Engrum, R & C  
16015 12th S.  
SeaTac, WA 98148

Erskine, Herbert E; Dunning, Colleen  
15446 Des Moines Memorial Dr.  
Seattle, WA 98148

Expeditors International  
19119 16th Ave. S.  
SeaTac, WA 98188

Fa McEachern LLC  
1427 S. 192nd St.  
Seattle, WA 98148

Farstad, Arnold  
19824 12th Ln. S.  
Seattle, WA 98148

Faulkner, Charlotte  
801 S. 148th St.  
Seattle, WA 98168

Finke, Kenneth  
805 S. 147th  
Burien, WA 98168

**AR 008687**

1.  
  
Fisher, Susan  
821 S. 148th St.  
Seattle, WA 98168

Fletcher, Georgoria  
19415 Des Moines Memorial Dr.  
Des Moines, WA 98148

Flight Safety International  
1309 S. 192nd St.  
Seattle, WA 98148

Ford, Mark L.  
19603 Des Moines Memorial Dr  
Seattle, WA 98148

Funderhide, Paul  
835 S. 147th  
Burien, WA 98168

Funk, Mark  
2600 S. 188th St.  
Seattle, WA 98188

Gentra, Inc.  
600 University Street  
Seattle, WA 98101

Givogre, Pete & Diane  
1323 S. 210th St.  
Des Moines, WA 98198

Glenborough Properties L.P.  
1900 S. 146th  
SeaTac, WA 98168

Gordon, C. Y. Tang  
17224 International Blvd  
SeaTac, WA 98188

Graber, Gary D. & Denny Ruth  
19111 Des Moines Memorial Dr.  
Seattle, WA 98148

Graham, Edwin E.  
1204 S. 196th St.  
Seattle, WA 98148

Granados, Jesse M. & Sandra L.  
2604 S. 208th St.  
Des Moines, WA 98198

Grant, Virginia E.  
15443 12th Ave. S.  
Seattle, WA 98148



Gudmundson, Judianne & Eric T.  
16063 Des Moines Memorial Dr.  
Seattle, WA 98148

Gwin, David  
18451 Des Moines Memorial Dr. S.  
Seattle, WA 98148

Gwinn, Howard J.  
18451 Des Moines Memorial Dr.  
Seattle, WA 98148

Hakola, Kent G. & Kristine L.  
1140 S. 200th St.  
Des Moines, WA 98198

Harris, Kelly V.  
21404 14th Ave. S.  
Des Moines, WA 98198

Harris, Marlow  
20229 28th Ave. S.  
Des Moines, WA 98198

Harrison, Randal  
22625 18th Ave. S.  
Des Moines, WA 98198

Harrison, Randal I; Kreis-Harrison Ja  
22625 18th Ave. S.  
Des Moines, WA 98198

Hartwig, Laura E. & David L.  
20011 12th Pl. S.  
Des Moines, WA 98198

Hatfield, Wayne A. & Delane K.  
21506 14th Ave. S.  
Des Moines, WA 98198

Hausherr, Richard M. & Brandy M.  
20703 15th Ave. S.  
Des Moines, WA 98198

Heider, Leo  
1009 S. 147th  
Burien, WA 98168

Hertz Realty Corp.  
18525 Des Moines Memorial Dr.  
Seattle, WA 98148

Hilstad, Crieghton  
1315 S. 210th St.  
Des Moines, WA 98198

L.

Hirata, Ronald W. & Sharon K.  
21412 14th Ave. S.  
Des Moines, WA 98198

Hockenbury, Van A; Graham, Lisa R.  
20718 24th Ave. S.  
Des Moines, WA 98198

Holiday Inn SeaTac  
Business Office  
17338 International Blvd.  
SeaTac, WA 98188

Holly Ridge Apartment Manager  
15405 Des Moines Memorial Dr.  
Seattle, WA 98148

Hosier, James P.  
21240 15th Ave. S.  
Des Moines, WA 98198

IAC Seattle – IV LLC  
18905 Des Moines Memorial Dr. S.  
Seattle, WA 98148

J. A. Green Development Corp.  
19284 Des Moines Memorial Dr.  
SeaTac, WA 98148

Jensen, Steven C. & Catherine G.  
1202 S. 196th St.  
Seattle, WA 98148

Johns, Kyle & Marie  
21516 14th Ave. S.  
Des Moines, WA 98198

Johnson, Clark W.  
20623 26th Ave. S.  
Des Moines, WA 98198

Johnson, John & Darlene  
2504 S. 148th  
SeaTac, WA 98188

Johnson, Richard  
20834 13th Ave. S.  
Des Moines, WA 98198

Johnson, Rickey D.  
21205 14th Ave. S.  
Des Moines, WA 98198

Keen Edward V. III & Cindy B.  
21428 14th Ave. S.  
Des Moines, WA 98198

AR 008690

1.  
  
Keene, Irene M.  
21246 14th Ave. S.  
Des Moines, WA 98198

Keller, Robert  
815 S. 147th  
Burien, WA 98168

Kephart, Susan  
19515 13th Pl. S.  
Seattle, WA 98148

Kerr, Denise K. & James P.  
1238 S. 200th St.  
Des Moines, WA 98198

Kerr, Eileen M.  
2832 S. 154th St.  
SeaTac, WA 98188

King County Housing Authority  
12834 Interurban S.  
Tukwila, WA 98168

Knesal, Gordon; Pittaluga, Adriana M.  
20720 25th Ave. S.  
Des Moines, WA 98198

Kollias, Ulysses & Sophia  
21467 17th Ave. S.  
Des Moines, WA 98198

Kraft, Pius  
2500 S. 208th St.  
Des Moines, WA 98198

Kreutz, W. H.  
1243 S. 196th Pl.  
Seattle, WA 98148

Lachapelle, Nancy L.  
21436 14th Ave. S.  
Des Moines, WA 98198

Lavin, June; Morris, William S.  
1010 S. 172nd St.  
Seattle, WA 98148

Lee, Eddie Ying Feng  
19030 28th Ave. S.  
SeaTac, WA 98188

Leek, Scott M. & Sheila J.  
1204 S. 200th St.  
Des Moines, WA 98198

AR 008691

L.  
  
Leitch, James S. & Jamie L.  
1254 S. 196th St.  
Seattle, WA 98148

Lenci Corp.  
19102 Des Moines Memorial Dr.  
Seattle, WA 98148

Lindes, Jeff  
15030 26th Ave. S.  
SeaTac, WA 98188

Liotta, Thomas C. II  
21225 14th Ave. S.  
Des Moines, WA 98198

Losnegard, Alf  
21403 14th Ave. S.  
Des Moines, WA 98198

Loudon, Theresa  
17438 6th S.W.  
Normandy Park, WA 98042

Maddox, Gary L.; Owens, Tawnya R.  
16235 Des Moines Memorial Dr.  
Seattle, WA 98148

Malmberg, D. W.  
3526 S. 194th  
SeaTac, WA 98188

Mannard, John T/Marcie W.  
21261 15th Ave. S.  
Des Moines, WA 98198

Maresh, J.E.  
16009 Des Moines Memorial Dr.  
Seattle, WA 98148

Mateer, Milo K Jr & Paulette J.  
1421 S 192nd St  
Seattle, WA 98148

Matiss, Fanija & Rudolfs  
20726 15th Ave. S.  
Des Moines, WA 98198

McGibbon, Bertha  
829 S. 148th St.  
Burien, WA 98168

McGibbon, Fred  
835 S. 148th St.  
Seattle, WA 98168

AR 008692

McGuire, Lillian D.  
15843 Des Moines Memorial Dr.  
Seattle, WA 98148

Mcinery, Candace M.  
1324 S. 210th St.  
Des Moines, WA 98198

McKinney, John W. & Barbara J.  
19812 12th Ln. S.  
Seattle, WA 98148

McMillon, Leroy & Annie N.  
21412 15th Ave. S.  
Des Moines, WA 98198

Meents, David H. & Linda L.  
16255 Des Moines Memorial Dr.  
Seattle, WA 98148

Mendoza, Jose & Eustolia  
20824 24th Avenue S.  
Des Moines, WA 98198

Mendoza, Ptricio H. & Rachelle L.  
21238 14th Ave. S.  
Des Moines, WA 98198

Michaels, Dean E. & Janet D.  
21411 14th Ave. S.  
Des Moines, WA 98198

Misek, Janice E.  
19906 12th Ln. S.  
Seattle, WA 98148

Molano, Maria D. & Esteban  
15903 Des Moines Memorial Dr.  
Seattle, WA 98148

Monroe Machine Inc.  
1422 S. 192nd St.  
Seattle, WA 98148

Moore, Terry E.  
16419 Des Moines Memorial Dr.  
Seattle, WA 98148

Morris, Corinne R.  
21204 14th Ave. S.  
Des Moines, WA 98198

Mullen, Jr., Nathaniel J. & Gail  
21261 14th Ave. S.  
Des Moines, WA 98198

**AR 008693**

I.  
  
Nelson, Gary K. & Krista L.  
21254 14th Ave. S.  
Des Moines, WA 98198

Neubauer, Ralph H., Jr. & Sherry K.  
1214 S. 196th St.  
Seattle, WA 98148

Nguyen, Nsu Thanh  
14808 8th Ave. S.  
Seattle, WA 98168

Nichols, David L. & Brenda A.  
21420 14th Ave. S.  
Des Moines, WA 98198

Nicoli, Raymond J & Connie J.  
1309 S 208th St  
Des Moines, WA 98198

Nielfinski, Rose  
21439 15th Ave. S.  
Des Moines, WA 98198

Nowogroski, Edward A. & Beatrice  
19215 Des Moines Memorial Dr.  
Seattle, WA 98148

Odegard, D. A.  
2806 S. 150th  
SeaTac, WA 98168

Ohrt, Larry D.  
15877 Des Moines Memorial Dr.  
Seattle, WA 98148

Olsen, Daniel W.  
1230 S. 196th St.  
Seattle, WA 98148

Olson, John P.  
16408 8th Ave. S.  
Seattle, WA 98148

Olson, Marlo L.  
1004 S. 150th St.  
Seattle, WA 98148

Otoole, Charles L. & Sharon K.  
1216 S. 201st St.  
Des Moines, WA 98198

Pacific Gulf Properties, Inc.  
2315 S. 200th St.  
SeaTac, WA 98188

Parezanin, Don J. or Current Resident  
18521 Des Moines Memorial Dr.  
Seattle, WA 98148

Parker, Richard  
19422 Des Moines Memorial Dr.  
SeaTac, WA 98148

Passion, Alexander  
16653 Des Moines Memorial Dr. S.  
Seattle, WA 98148

Peterson, Brad D.  
21214 14th Ave. S.  
Des Moines, WA 98198

Pham, Tien Van; Nguyen, Minh Thi  
1218 S. 200th St.  
Des Moines, WA 98198

Pircey, Thomas V. & Betty A.  
15815 Des Moines Memorial Dr.  
Seattle, WA 98148

Power, Michael E. & Patti  
16049 Des Moines Memorial Dr.  
Seattle, WA 98148

Prasad, David J. & Saras W.  
20743 15th Ave. S.  
Seattle, WA 98198

Reid, Michael J. & Erica  
15805 Des Moines Memorial Dr.  
Seattle, WA 98148

Remy, Emile  
21429 14th Ave. S.  
Des Moines, WA 98198

Rice, David D., Jr. & Deborah A.  
21249 14th Ave. S.  
Des Moines, WA 98198

Richards, Beverly  
20126 15th Ave. S.  
Des Moines, WA 98198

Rivera, Robert  
2658 S. 150th  
Seattle, WA 98168

Robbins, Mark R.  
16045 Des Moines Memorial Dr.  
Seattle, WA 98148

Robbins, Michael V. & Renee M.  
16041 Des Moines Memorial Dr.  
Seattle, WA 98148

Roberts, W. L.  
17315 12th Ave. S.  
Seattle, WA 98148

Robinson, Robert D. & Cynthia L.  
16223 Des Moines Memorial Dr.  
Seattle, WA 98148

Rodger, Michael  
15653 Pacific Hwy S.  
SeaTac, WA 98188

Rogers, James M.  
21255 14th Ave. S.  
Des Moines, WA 98198

Rojas, Margarita M.  
20011 14th Ave. S.  
Des Moines, WA 98198

Root, James & Donna  
1402 S. 201st St.  
Des Moines, WA 98198

Ryall, Denis E. & Drusilla M.  
21201 14th Ave. S.  
Des Moines, WA 98198

Sampson, M. D.  
21231 14th Ave. S.  
Des Moines, WA 98198

Sanchez, Fidencio; Arvizu Hilda  
20822 25th Ave.  
Des Moines, WA 98198

Sawyer, Charlene A.  
16407 Des Moines Memorial Dr.  
Seattle, WA 98148

Schade, Karen M.  
1242 S. 196th St.  
Seattle, WA 98148

Schmitz, Della  
2617 S. 148th  
SeaTac, WA 98188

Schorr, Christopher D.  
20840 24th Ave. S.  
Des Moines, WA 98198



1.  
  
Schroeder, R. H.  
1504 S. 207th St.  
Des Moines, WA 98198

Sheen, Shing-Yeen & Jean  
19244 28th Ave. S.  
SeaTac, WA 98188

Shileika, Bruce Edward  
20220 14th Ave. S.  
Des Moines, WA 98198

Singh, Risham  
21022 13th Ave. S.  
Des Moines, WA 98198

Smith, Daniel C. & Hilary P.  
1330 S. 210th St.  
Des Moines, WA 98198

Smith, Teresa Linda  
20212 14th Ave. S.  
Des Moines, WA 98198

Snguon, Doeurk & Ray, Nhoy  
20006 12th Pl. S.  
Des Moines, WA 98198

Solberg, Wiana A.  
1205 S. 200th St.  
Des Moines, WA 98198

South 200th Street Station LLC  
2709 S. 200th St.  
Seattle, WA 98198

Spieker Properties  
33801 1st Way S.  
Federal Way, WA 98003

Spiekes, Johan  
2412 S. 148th St.  
SeaTac, WA 98188

Stanley, Cathea  
20120 15th Ave. S.  
Des Moines, WA 98198

Stears, George L. & Mavis  
18624 12th Pl. S.  
Seattle, WA 98148

Stemen, Keith  
2608 S. 152nd St.  
SeaTac, WA 98188

Stewart, Richard  
19405 Des Moines Memorial Dr.  
Des Moines, WA 98148

Stump, Elizabeth J.  
2020 S. 216th St.  
Des Moines, WA 98198

Sumpter, Gloria Jeanne  
20735 15th Ave. S.  
Des Moines, WA 98198

Swindall, Nan L.  
1413 S. 215th Pl.  
Des Moines, WA 98198

Symm, C.V.  
2605 S. 150th  
SeaTac, WA 98188

Tarbuck, Mary Jo  
19503 13th Pl. S.  
Seattle, WA 98148

Tatum, Ezekiel  
14650 24th Ave. S.  
Seattle, WA 98168

Taylor, Alice L.  
1404 S. 204th St.  
Des Moines, WA 98198

Teague, Joseph B. & Elisa  
19802 12th Ln. S.  
Seattle, WA 98148

Thulin, Richard Edward  
20007 13th Ave. S.  
Des Moines, WA 98198

Totten, Glenn D.  
19445 Des Moines Memorial Dr  
Des Moines, WA 98198

Towe, W. L.  
19509 13th Pl. S.  
Seattle, WA 98148

Trautmann, Mark  
823 S. 147th  
Burien, WA 98168

Tuipulotu, Sigsifa & Asinate  
1314 S. 210th St.  
Des Moines, WA 98198

AR 008698

Turner, John H; Petro, Teresa M.  
19815 12th Ln. S.  
Seattle, WA 98148

Tyler, Ruby E.  
16247 Des Moines Memorial Dr.  
Seattle, WA 98148

U S West Inc.  
18800 Des Moines Memorial Dr.  
Seattle, WA 98148

Vandenberg, Dean  
19247 Des Moines Memorial Dr  
Seattle, WA 98148

Vencill, Benjamin C. & Patricia A.  
21239 14th Ave. S.  
Des Moines, WA 98198

Vondette, Bonnie Jo & Kenneth C.  
20015 13th Ave. S.  
Des Moines, WA 98198

Wagner, William  
2858 S. 154th St.  
SeaTac, WA 98188

Washington Memorial Bonney-Watson  
Business Office  
16445 Pacific Highway S.  
SeaTac, WA 98188

Weona Bldg. Corp.  
18634 Des Moines Memorial Dr.  
Seattle, WA 98148

Whitney, David A. & Lorna M.  
16842 8th Ave. S.  
Seattle, WA 98148

Wigginton, Josephine  
20024 26th Ave. S.  
Des Moines, WA 98198

Williams, George H.  
21501 14th Ave. S.  
Des Moines, WA 98198

Willis, Patrick E.  
20228 14th Ave. S.  
Des Moines, WA 98198

Winder, Matthew James & Jonathan M.  
21230 15th Ave. S.  
Des Moines, WA 98198

Wood, Ramona Meredith  
21413 15th Ave. S.  
Des Moines, WA 98198

Woods, Jerry W.  
2612 S. 208th St.  
Des Moines, WA 98198

Woolsey, Melissa A; Meyer, Melanie  
20611 15th Ave. S.  
Des Moines, WA 98198

Wyndam Inn/Business Office  
18110 International Blvd.  
SeaTac, WA 98188

Young, Donna Y.  
20220 15th Ave. S.  
Des Moines, WA 98198

Zink, Martin E & Claudia M. Clarke  
16247 8th Ave. S.  
Seattle, WA 98148



~~DRAFT - ATTORNEY-CLIENT PRIVILEGED~~

~~CERTIFIED MAIL~~

date

TO: Port of Seattle  
17900 International Blvd., Suite 402  
Seattle, WA 98188-4236  
ATTN: Mr. Michael Cheyne

TO: District Engineer  
Department of the Army  
Seattle District, Corps of Engineers  
P.O. Box 3755  
Seattle, WA 98124  
ATTN: Tom Mueller, Chief  
Regulatory Branch

RE: Denial of request for Water Quality Certification #1996-2-02325R - Port of Seattle.  
Place fill and excavate material from approximately 18.33 acres of streams and wetlands  
in and adjacent to Des Moines, Miller, and Walker Creeks, in King County, Washington,  
with additional direct and indirect impacts to waters of the state for construction and  
operation of a proposed Master Plan expansion of Seattle-Tacoma International Airport.

Dear Mr. Cheyne and Mr. Mueller:

The Department of Ecology (Ecology), on behalf of the state of Washington, has reviewed the above-referenced proposed project pursuant to the applicant's request for water quality certification under Section 401 of the federal Clean Water Act. This review for water quality certification is required as part of the Section 404 review being done by the Seattle District U.S. Army Corps of Engineers for the proposed discharge of dredged or fill material into navigable waters. Section 401 review is meant to ensure compliance with Sections 301, 302, 303, 306, and 307 of the Clean Water Act and other appropriate requirements of state law, which include RCW 90.48 and 173-201A WAC.

At this time, Ecology does not have reasonable assurance that the proposed project will comply with the applicable federal and state water quality requirements and is unable to certify that this proposed project meets the necessary requirements. Therefore, per Section 401 of the federal Clean Water Act, the applicant's request for water quality certification is denied.

The reasons for denial include, but are not limited to, the following:

- Inadequate Stormwater Management Plan: the current proposed Stormwater Management Plan includes serious deficiencies that must be corrected before Ecology has reasonable assurance that the Stormwater Plan will allow water quality standards to be met. These deficiencies include errors in model calculations, inconsistencies between various parts of the Plan, and proposed stormwater treatment and detention measures that fall short of the Best Management Practices described in the Puget Sound Stormwater Manual and the King County Surface Water Runoff Manual.

AR 008702

*W/our  
and*

Adequate Natural Resource Mitigation Plan: the project, as currently proposed, does not yet include adequate mitigation for impacts to waters of the state. The applicant's current Natural Resource Mitigation Plan must be revised to include additional detailed analysis of the cumulative impacts of the proposed project, must include additional detailed mitigation elements that fully address these impacts, and must include improved performance standards in some areas. It must also be fully coordinated with other required project elements such as the Stormwater Management Plan.

- Inadequate streamflow augmentation plan: analyses of project impacts show that the proposed project would result in diminished streamflows in some areas. Ecology has informed the applicant that project mitigation must therefore include streamflow augmentation. While the applicant has proposed a flow augmentation plan, it does not yet include a confirmed source of augmentation water and does not yet include the level of detail necessary to provide reasonable assurance.
- 2  
detail*

Consequently, we are unable to certify that the construction and operation of this proposed project will meet antidegradation requirements, will ensure beneficial and characteristic uses are maintained, and will sufficiently protect water quality and fish, shellfish, wildlife, and public use, as required by state water quality standards (173-201A WAC).

Ecology understands that the applicant plans to re-apply for water quality certification sometime in the near future. We will work with the applicant and the Corps to fully identify specific issues that must be addressed to meet the applicable requirements and will provide guidance to the applicant to help develop documents with the necessary level of detail and information for our 401 review.

Appeal Process: Any person aggrieved by this decision may obtain review thereof by appeal. The applicant can appeal up to 30 days after receipt of this decision, and all others can appeal up to 30 days from the postmarked date of the permit. The appeal must be sent to the Washington Pollution Control Hearings Board, PO Box 40903, Olympia WA 98504-0903. Concurrently, a copy of the appeal must be sent to the Department of Ecology, Enforcement Section, PO Box 47600, Olympia WA 98504-7600. These procedures are consistent with the provisions of Chapter 43.21B RCW and the rules and regulations adopted thereunder.

Please contact Tom Luster of my staff at (360) 407-6918 if you have any questions or would like more information.

Sincerely,

Program Manager  
and Environmental Assistance Program

.:tl

cc: EPA – Joan Cabreza  
USFWS – Nancy Brennan-Dubbs  
WDFW – Phil Schneider  
Ecology – Ray Hellwig, Paula Ehlers, Kevin Fitzpatrick, Erik Stockdale, Tom Luster  
Ecology A.G.'s Office – Joan Marchioro  
[others?]







US Army Corps  
of Engineers  
Seattle District

# Public Notice of Application for Permit

Regulatory Branch  
Post Office Box 3755  
Seattle, Washington 98124-3755  
Telephone (206) 764-3495  
ATTN: Jonathan Freedman, Project Manager

Public Notice Date: 27 December 2000  
Expiration Date: 16 February 2001  
Reference: 1996-4-02325  
Name: Seattle, Port of

## SECOND REVISED PUBLIC NOTICE

Interested parties are hereby notified that a revised application has been received for a Department of the Army permit in accordance with Section 404 of the Clean Water Act for certain work described below and shown on the enclosed drawings. The work has been circulated twice previously for public comment under the same application reference number (1996-4-02325), 19 December 1997 and 30 September 1999. The Corps and the Washington State Department of Ecology (Ecology) have held joint public hearings in connection with each public comment period, the first on 9 April 1998; and the second on 3 November 1999. Copies of the public notices and transcripts of the public hearings are available at the U.S. Army Corps of Engineers (Corps) office as noted on page 3 of this public notice. Revisions to the applicant's proposed project are described below and shown on sheets 1 - 38.

Comments should be restricted to revisions in the applicant's proposal since the previous public comment periods of December 1997 - April 1998, and September through November 2000, or to update previously submitted comments. All written comments received by the Corps during these previous comment periods remain a part of the record for this application and will be given full consideration in making a permit decision.

### APPLICANT - Port of Seattle

17900 International Blvd., Suite 402  
Seattle-Tacoma International Airport  
SeaTac, Washington 98188-4236  
ATTN: Ms. Elizabeth Leavitt  
Telephone: (206) 433-7203

LOCATION - In the Miller Creek, Walker Creek, and Des Moines Creek watersheds and in wetlands at Seattle-Tacoma International Airport (STIA), located in and within the vicinity of the city of SeaTac, King County, Washington; and in wetlands at the mitigation site in Auburn, King County, Washington.

WORK - Fill all or portions of 50 wetlands totaling approximately 18.37 acres<sup>1</sup>, and temporarily impact 12 wetlands totaling 2.05 acres. Fill 14.23 acres of wetlands to construct an 8,500-foot parallel third

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<sup>1</sup> At the date of the 1997 and 1999 public notices for this project, the applicant did not have access to all parcels impacted by the applicant's proposed action. Accordingly, the Corps was unable to complete verification of all wetlands in the project area. The applicant has since gained access to all acquired properties and delineated new wetland areas impacted by the project. The Corps has verified these new wetland boundaries. The verification of all wetland boundaries impacted by the applicant's proposal in this public notice is, therefore, complete.

AR 008706

runway west of the existing runways at STIA, and relocate the South 154<sup>th</sup>/S. 156<sup>th</sup> Way bridge. Excavate and perform land clearing on 1.10 acres of jurisdictional wetlands at onsite borrow sources located south of the existing runways to provide fill material for the third runway. Fill 0.14 of an acre to construct two new Runway Safety Areas (RSAs) on the north end of the existing runways. An additional 2.78 acres of fill will be placed in wetlands 1 mile south of the existing terminal to construct the South Aviation Support Area (SASA) for airport support and maintenance facilities.

Implementation of the work involves development and/or redevelopment of approximately 700 acres in uplands outside Corps jurisdiction. Fill in wetlands will include about 8.17 acres of forested wetlands, 2.98 acres of scrub-shrub wetlands, and 7.22 acres of emergent wetlands. This impact represents an increase of 0.04 of an acre from the first revised public notice of 3 November 1999.

The proposed work would also require filling and reconstruction of approximately 980 linear feet of Miller Creek (0.25 of an acre), about 1,290 linear feet (0.13 of an acre) of drainage channels in the Miller Creek basin, and 100 linear feet (0.01 of an acre) of drainage channel in the Des Moines Creek basin. The amount of creek and channel impacts is unchanged since the 1999 public notice.

In addition to permanent impacts totaling 18.37 acres, up to 2.05 acres of wetlands (1.15, 0.46, and 0.44 acres of forest, shrub, and emergent wetlands, respectively) would be subjected to temporary impacts during construction of the Master Plan improvement projects. Temporary wetland impacts would result from construction of stormwater management facilities (sediment fencing, conveyance channels, and sedimentation ponds) to protect downslope water quality. Wetland areas impacted by construction would be restored to shrub and or forested wetlands following construction. These potential temporary impacts have been reduced from 2.17 acres as cited in the first revised public notice of 1999, due to design refinements which have resulted in the elimination of impacts to Wetlands 3, 48, and B15.

Construction of onsite wetland and stream mitigation (described in the Mitigation section below) would occur in about 17.2 acres of jurisdictional wetlands. Modification of these wetlands would be temporary and, following implementation of the mitigation, are intended to result in restoring or enhancing water quality, flood storage and other wetland functions to the areas.

Implementation of offsite mitigation in the city of Auburn would result in temporary impacts to 21.64 acres of historically farmed and emergent wetlands. These impacts would include temporary disturbances related to installing enhancement plantings, a temporary irrigation system, temporary access, construction staging, excavation of low quality emergent wetlands to provide a connection to the 100-year floodplain, and excavation to create a diversity of wetland types and functions. About 0.12 of an acre of wetlands would be considered permanently filled due to the construction of an access road to the mitigation site.

The location of wetlands and the extent and nature of wetland impacts are discussed in: (a) *Wetland Delineation Report, Seattle-Tacoma International Airport Master Plan Update Improvements* (December 2000) and (b) *the Wetland Functional Assessment and Impact Analysis Report- Master Plan Update Improvements, Seattle-Tacoma International Airport* (December 2000). Copies of these and other documents referenced in this notice are available at the following locations:

- The Port of Seattle Neighborhood Field Office at 19639 28<sup>th</sup> Avenue South, SeaTac WA 98188. Building E, Room SC4-1011A;
- Burien Public Library, 14700 - 6<sup>th</sup> Avenue Southwest, Burien WA 98166.

- Des Moines Public Library at 21620 11<sup>th</sup> South, Des Moines WA 98198.
- U.S. Army Corps of Engineers, Seattle District Law Library, Room 2131A; 4735 East Marginal Way South, Seattle, WA 98124-2255

**More Detailed Information on Other Projects in the Vicinity:** Since circulation of the previous public notices, more detailed information on other proposed projects at and in the vicinity of Sea-Tac airport is now available to the Corps. This information is cited because it may be relevant to the consideration of potential cumulative impacts. Projects sponsored primarily by entities other than the Port of Seattle (Port) include, among others, the Des Moines Creek Regional Detention Facility; the State Route 509 extension/South Access roadway; the Regional Transit Authority Light Rail Project; and city of SeaTac land use planning activities. Projects sponsored by the FAA, independent of the Master Plan projects include navigation improvements (an air traffic control tower and Terminal Radar Approach Control (TRACON)). Projects sponsored primarily by the Port, apart from Master Plan Update projects include, among others, Industrial Wastewater System Lagoon 3; the South Terminal Expansion Project; the Part 150 noise study; and the aircraft hydrant fueling system; and replacement of a water tower in the Gilliam Creek basin on a previously developed site. No wetland impacts from this work would occur in the Gilliam Creek basin. The project would not add new impervious surfaces to the Gilliam Creek watershed.

The Port also proposes to construct a temporary interchange at SR 509, in the vicinity of 170<sup>th</sup> Street, to facilitate truck and construction vehicle access to the construction site. This work according to the Port, would not have any direct impacts on wetlands or waters of the United States. The Corps reverified wetland boundaries in the vicinity of the Interchange site at Wetland 44, but has not reviewed final project plans for the interchange as of the date of this public notice.

Information on these and other projects is available from the Corps, the applicant, the FAA, and at selected public libraries at the addresses listed elsewhere in this public notice. The public is invited to submit comments on the potential cumulative impacts of these other projects, together with the proposed work described in this notice.

**Changes in Impact to Waters of the United States:** Changes in wetlands affected by the project and associated mitigation since the 1999 public notice include:

- A total of 15.61 acres of additional palustrine emergent wetlands have now been delineated and verified at the offsite mitigation site in Auburn. Approximately 1.60 acres of these wetlands extend off the site into the temporary and permanent construction easements, and approximately 19.50 acres are located within the boundary of the 67-acre Auburn mitigation site. The previous verified wetlands delineation at the offsite mitigation area in Auburn identified about 6 acres of wetland at the Auburn mitigation site.
- A 100-foot buffer has been added around the entire Auburn mitigation site, portions of which are wetlands.
- Approximately 3.20 additional acres of riparian and non-riparian wetlands, on recently acquired property near Miller Creek, will be enhanced as part of the Miller Creek in-basin mitigation actions.
- A 100-foot buffer along a portion of the West Branch of Des Moines Creek with enhanced wetland plantings has been added.

- Temporary construction impacts to wetlands have been reduced by 0.12 of an acre.
- Impacts to Wetlands 48 and B15 in Borrow Area 1 have been eliminated.

**PURPOSE** - The project purpose is to meet the public need for an efficient regional air transportation facility to meet anticipated future demand. The purpose is also described in the original and first revised public notice and remains the existing purpose of record for this application. Additional discussion about analysis of alternatives is found below in the additional information section. The applicant proposes to accomplish this by implementing specific measures at Sea-Tac which are summarized as follows:

- **Third Runway.** *Improve the poor weather airfield operating capability to accommodate aircraft activity with reduced delay in aircraft takeoffs and landings.* As aircraft operations at Sea-Tac have increased over the years, aircraft delay, particularly during poor weather conditions, has worsened. Recent forecasts predict continued increases in aircraft operations and continued worsening of aircraft delay during poor weather conditions. A third runway would allow Sea-Tac to operate two runways for landing during times of poor weather.
- **Runway Safety Areas (RSAs).** *Provide RSAs that meet current Federal Aviation Administration (FAA) standards.* An RSA is the surface surrounding a runway suitable for reducing the risk of injury/damage in the event that an airplane undershoots, overshoots, or veers off the runway. The RSAs on the two existing runways at Sea-Tac do not meet current FAA standards.
- **South Aviation Support Area (SASA):** *Develop an additional South Aviation Support Area (SASA) to accommodate aircraft maintenance facilities and air cargo facilities.* Expansion of main air terminal Concourse A and development of the new North Terminal would displace existing maintenance and air cargo facilities. These terminal facilities are required to accommodate projected passenger demand.

**ADDITIONAL INFORMATION** – In 1992, the Puget Sound Regional Council and the Port issued the Flight Plan Project Final State EIS, pursuant to the Washington State Environmental Policy Act. In 1992 the FAA and the Port also issued the South Aviation Support Area Final Federal Environmental Impact Statement pursuant to the National Environmental Policy Act.

An EIS for this project was prepared under the National Environmental Policy Act (NEPA) and the Washington State Environmental Policy Act (SEPA) by the FAA (the NEPA lead agency) and the Port (the SEPA lead agency). The Corps participated as a cooperating agency under NEPA. The document, entitled "*Final Environmental Impact Statement (FEIS) for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport*" was issued in February 1996. A supplement to the EIS, entitled "*Final Supplemental Environmental Impact Statement for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport*" was issued in May 1997. The Master Plan Update is a comprehensive analysis of long-term needs for Sea-Tac airport and the regional transportation network in general. A full range of alternatives was addressed in the EIS, including alternative modes of transportation, construction of a new airport or modifications to an existing airport, improvements in systems management, development alternatives at Sea-Tac, and no action. After review of the alternative courses of action to address poor weather aircraft operating delay, the FAA, the Puget Sound Regional Council, and the Port concluded that the only practicable course of action to achieve the project purpose was to construct a third parallel air carrier runway and other air transportation facilities at Sea-Tac. Following review of alternative courses of action to bring the runways into compliance with FAA standards, the FAA and the Port of Seattle have concluded that it is necessary to construct extensions of the RSAs. The FAA and the Port of Seattle have also concluded that it is necessary to construct the SASA.

As a cooperating agency under NEPA, the Corps concluded that a number of upgrades and improvements at Sea-Tac proposed as part of the Master Plan update including, but not limited to, proposed terminal improvements, extension of runway 34R, parking and access improvements, and relocation, redevelopment and expansion of support facilities; would not involve the filling of wetlands or other waters of the United States and, therefore, would require no Department of the Army permit under Section 404 of the Clean Water Act.

Individual permits issued by this office are normally valid for 3 years from the date of issuance. The work proposed by the Port of Seattle in this Public Notice is expected to take considerably longer than 3 years. Pursuant to the requirements of 33 CFR 325.6(c), the District Engineer hereby establishes the duration of a permit for this work, if one were to be issued, to be 7 years from the date of issuance.

MITIGATION - To compensate for unavoidable project impacts to streams and wetlands, the applicant has proposed onsite and offsite mitigation described in the *Natural Resource Mitigation Plan, Seattle Tacoma-International Airport Master Plan Update Improvements (December 2000)*. In response to public review, agency comment, and new information collected since circulation of the first revised public notice dated 30 September 1999, the applicant has made the following changes to the mitigation plan.

- Mitigation at the Vacca Farm Site has increased from about 11 to 17.15 acres. This mitigation area includes new Miller Creek in-stream habitat enhancements, enhanced prior converted cropland (6.60 acres), enhanced emergent scrub-shrub and forested wetlands (3.64 acres), enhanced shoreline and aquatic habitat in Lora Lake (3.06 acres). The mitigation also includes enhanced stream, shoreline, and wetland buffers associated with Miller Creek (4.85 acres).

The principal features of mitigation at Vacca farm remain: Relocation and enhancement of a 980-linear-foot reach of Miller Creek around the footprint of the proposed improvements; enhancement of fisheries habitat in relocated sections of Miller Creek; and excavation of new floodplain/wetland enhancement at Vacca Farm to compensate for floodplain areas filled.

- Mitigation in the Miller Creek buffer downstream of Vacca Farm has increased from 24 to 39.4 acres. This increase results from establishing 100-foot buffers from the outer edge of the riparian wetlands (versus the ordinary high watermark of the creek), and by including a buffer averaging approach to increase buffer size where the embankment and easements occur within 100 feet of Miller Creek or riparian wetlands.

The mitigation work downstream of Vacca Farm still includes the following major features:

- a. Removal of existing development (including removal of septic tanks, underground storage tanks, ornamental vegetation, invasive species, and water uses);
- b. Establishment of buffers vegetated with native woody vegetation along about 6,500 linear feet (about 40 acres) of Miller Creek. These buffers include enhancement of about 7.40 acres of wetlands in the Miller Creek buffer;
- c. Restoration of in-stream habitat at four locations in the Miller Creek channel;
- d. Installation of large woody debris along approximately 6,500 linear feet of the Miller Creek channel.

Onsite and in-basin mitigation for filling of 14.37 acres of wetlands in the Miller Creek watershed, described above, will occur on approximately 57 acres of property around Miller Creek that would be placed in native growth protection easements or an equivalent restrictive covenant. Additional in-basin mitigation would result from the establishment of a \$150,000 Trust Fund to promote enhancement of aquatic habitat in Miller Creek.

- Mitigation on the Tyee Valley Golf Course has increased from 4.5 to 10.46 acres. This results from the addition of increased buffers on the Tyee Valley golf course enhancement project, which would convert a managed golf course to scrub-shrub wetland habitat, bringing the total to 6.07 acres, and by adding buffers to a portion of the West Branch of Des Moines Creek (4.39 acres), and enhancing them with native shrubs.

The major details of mitigation for filling of 3.88 acres of wetlands in the Des Moines Creek watershed remain as from the first revised public notice and will occur on over 10 acres of property that would be placed in native growth protection easements or an equivalent restrictive covenant. Additional in-basin mitigation would result from the establishment of a \$150,000 Trust Fund to promote enhancement of aquatic habitat in Des Moines Creek.

- Out-of-basin mitigation in Auburn has increased from 51 acres to over 65 acres. This increase results from an increase in the buffer width from 50 to 100 feet. The project now includes 15.9 acres of buffer, 19.5 acres of wetlands enhancement, and 29.98 acres of wetlands creation or restoration.

The major features of the out-of-basin mitigation, on a site within the city of Auburn, adjacent to the Green River remain as in the 1999 public notice. This mitigation is located more than 10,000 feet from active runways at STIA, and consistent with provisions of the FAA Advisory Circular 150/5200-33, which limits wildlife habitat mitigation near airports, would provide habitat mitigation. The mitigation plan consists of the following elements:

- a. In-kind replacement of wetlands at a mitigation ratio of 2.1:1 (about 17.20 acres).
- b. In-kind replacement of scrub-shrub wetlands at a ratio of 2:1 (about 6.00 acres).
- c. In-kind replacement of emergent wetlands at a ratio of 0.9:1 (about 6.80 acres, which includes 0.60 of an acre of open water).
- d. Enhance approximately 19.50 acres of existing wetlands with native tree and shrub species.

Protect the replacement wetlands with 100-foot-wide forested buffers and other upland forest areas. About 11.9 acres of buffer would protect the mitigation wetlands. About 4 acres of upland forest would provide habitat for upland wildlife in the interior portion of the site.

Consolidate impacts to many small, isolated, lower functioning wetlands into a larger, ecologically diverse wetlands ecosystem. The wetlands would provide increased habitat function in comparison to that provided by the impacted wetlands.

The Auburn wetland mitigation site consists of upland and palustrine emergent wetlands. About 10.40 acres of palustrine emergent wetlands dominated by pasture grasses would be regraded and replanted with native

wetland species. Approximately 9.10 acres of emergent wetlands (areas dominated by pasture grass) would be temporarily impacted by installation of plantings and temporary irrigation. About 1.60 acres of offsite emergent wetlands would be temporarily disturbed during construction of the temporary construction road. About 19.50 acres of existing emergent wetlands dominated by pasture grasses would be enhanced and restored to native forested wetlands habitat. Finally, about 2.20 acres of seasonally saturated emergent wetlands (dominated by reed canarygrass, pasture grasses, and/or row crops) could be altered by construction of channels connecting the mitigation site to the 100-year floodplain of the Green River. About 0.12 of an acre of wetlands (dominated by emergent pasture grasses) would be permanently impacted by construction access to the Auburn mitigation project. The total wetlands area affected at the Auburn mitigation site, including construction access, would be about 23 acres.

**ENDANGERED SPECIES** - The Endangered Species Act of 1973 (ESA), as amended, requires assessment of potential impacts to listed and proposed species. Puget Sound chinook salmon (*Oncorhynchus tshawytscha*) and the Coastal/Puget Sound bull trout (*Salvelinus confluentus*) have been listed as threatened in the State of Washington. These two species occur downstream of the proposed project area in the Miller and Des Moines Creek estuaries and do occur in the Green River (located approximately 200 feet east of the proposed offsite wetlands mitigation area in Auburn, Washington). Critical habitat has been designated for chinook salmon. The Miller and Des Moines Creek estuaries are in designated critical habitat areas for the species. The bald eagle (*Haliaeetus leucocephalus*), listed as threatened in Washington, occurs in the project area. Overwintering bald eagles may use the Green River as a forage area; however, construction of the mitigation project will occur during the summer months when eagles are unlikely to be present. Upon completion, the mitigation site may provide additional roosting and forage habitat for eagles.

In 1995, during preparation of the EIS, a biological assessment (*Appendix K – STIA Airport Master Update Final EIS Biological Assessment, April 1995*) and addendum (*Addendum to Biological Assessment STIA Airport Master Plan Update Final EIS, December 1995*) were completed for the proposed work. At that time, the bald eagle (*Haliaeetus leucocephalus*), and peregrine falcon (*Falco peregrinus*), were listed as threatened in Washington. Based on the biological assessment and addendum, the FAA, the lead Federal agency, determined the proposed action was not likely to adversely affect bald eagles or peregrine falcons. The U.S. Fish and Wildlife Service concurred with this determination on 6 December 1995. After that time, the peregrine falcon was formally delisted under ESA.

In early 2000, following the listing of Puget Sound chinook, and Coastal/Puget Sound bull trout, the FAA, as the lead Federal agency for ESA consultation, reinitiated consultation for all currently listed fish and wildlife species. A biological assessment has been prepared addressing potential impacts to chinook salmon, bull trout, marbled murrelet (*Brachyramphus marmoratus*), and bald eagle. The FAA has initiated formal consultation under Section 7 of the ESA with the National Marine Fisheries Service (NMFS), and the U. S. Fish and Wildlife Service (USFWS). The Services are currently preparing biological opinions. The Corps will not proceed to a permit decision until ESA consultation has been completed.

**CULTURAL RESOURCES** - The District Engineer has reviewed the latest published version of the National Register of Historic Places, lists of properties determined eligible and other sources of information. The following is current knowledge of the presence or absence of historic properties and the effects of the undertaking upon these properties:

An historic properties investigation has been conducted within the permit area. One site, the Sunnydale School, is potentially eligible for the National Register and, while not within the permit area proposed herein, would be indirectly affected by the operation of the third runway. The applicant is preparing a Memorandum



of Agreement for the sound insulation of the school in accordance with Section 106 of the National Historic Preservation Act. That process includes review and coordination by the Washington State Office of Archaeology and Historic Preservation, and the Advisory Council on Historic Preservation, as appropriate.

A cultural resource survey has been conducted for the permit area. No archeological or cultural resources were identified. The applicant proposes monitoring of portions of the project area by a qualified archaeologist during construction. If necessary, coordination with the State Historic Preservation Officer (SHPO) would occur per the requirements of Section 106 of the National Historic Preservation Act prior to a Corps permit decision.

The District Engineer invites responses to this public notice from Federal, State, and local agencies, historical and archeological societies, Indian tribes, and other parties likely to have knowledge of or concerns with historic properties in the area.

PUBLIC HEARING – Two joint public hearings will be held by the Corps for the Department of the Army permit application and the Washington State Ecology's Washington State Water Quality Certification for the proposed project.

Dates and Times: 26 January 2001 5:30 p.m. – 10 p.m.;  
27 January 2001 9 a.m. – 5 p.m.

Location: Washington State Criminal Justice Training Center  
19010 - 1<sup>st</sup> Avenue South  
Burien, Washington 98148

The purpose of the hearings is to obtain public views and opinions on the proposed project that are relevant for consideration in making a permit decision for this proposed project.

HEARING FORMAT – The forum will be two formal hearings with verbatim recording. Oral and/or written comments can be presented. The hearings will be conducted in accordance with procedures set forth in 33 CFR, Part 327 (see Federal Register, Vol. 51, Number 219, dated November 13, 1986, page 41249 et. Seq.), and requirements of the State of Washington at 173-225 WAC. A brief description of the proposal, including changes from the prior project reviewed in the public hearing of 3 November 1999, will be presented. Following this, interested parties may present specific information on the proposal, potential impacts, alternatives, or other related concerns.

During the afternoon session of 26 January 2001, 4 p.m. to – 5 p.m., and from 9 a.m. to 10 a.m. at the beginning of the 27 January 2001 session, Corps and Ecology staffs will conduct question and answer sessions to discuss procedural issues and concerns that the public may have about the permit process. Discussion will be limited to procedural issues only. Comments or questions of a technical nature on the applicant's proposal must be given as formal comment during the testimony portions of the hearings.

Testimony should be restricted to changes in the applicant's proposal from that presented in the public hearing of 3 November 1999, or to update previously submitted comments. All written and oral statements given during the previous hearings and accompanying comment periods remain a part of the record and will be given full consideration in making a permit decision.

All interested parties are invited to be present or to be represented at these public hearing. Oral statements will be heard, but for accuracy of the record, important testimony should be submitted in writing. Oral statements should be brief, and summarize any extensive written material so that there will be time for all interested persons to be heard.

COMMENT AND REVIEW PERIOD - The Corps and the Ecology will accept written comments on the proposed work for 20 days following the public hearing, until 16 February 2001. Comments for the Corps should be submitted to:

U.S. Army Corps of Engineers  
Regulatory Branch  
Post Office Box 3755  
Seattle, Washington 98124-2255  
ATTN: Jonathan Freedman, Project Manager

Comments for Ecology should be submitted to:

Washington State Department of Ecology  
Shorelands and Environmental Assistance Program  
3190 - 160<sup>th</sup> Avenue Southeast  
Bellevue, Washington 98008-5452  
ATTN: Ann Kenny, Environmental Specialist

PROJECT BIBLIOGRAPHY - The following is a non-inclusive list of documents, issued since the November 1999 public hearing, relating to this permit application. Additional information on this project is available in the project files located at the Corps Seattle District office.

**I. Port of Seattle Projects—404 Permit Documents**

1. *Wetland Functional Assessment and Impact Analysis*, Parametrix (December 2000)
2. *Natural Resource Management Plan*, Parametrix (December 2000)
3. *Wetland Delineation Report*, Parametrix (December 2000)
4. *Comprehensive Stormwater Management Plan*, Parametrix (December 2000)
5. *Wildlife Hazard Management Plan* (August 2000)
6. *Seattle – Tacoma Master Plan Update Low Streamflow Analysis*, Earth Tech Inc., (December 2000).

**II. Port of Seattle Projects—Other Documents**

1. *Industrial Wastewater System Lagoon #3 Upgrades and Expansions* SEPA Determination of Non-Significance (December 22, 1999) and Environmental Checklist.
2. *Part 150 Noise Compatibility Plan* SEPA Determination of Non-Significance (October 20, 2000) and Environmental Checklist (October 16, 2000).

3. *Water System Improvements Project Seattle-Tacoma International Airport* SEPA Determination of Non-Significance (July 5, 2000) *Addendum to Water System Improvements* (June 27, 2000) and Environmental Checklist (March 8, 2000).

4. *North Electrical Service Upgrade Seattle-Tacoma International Airport* Final SEPA Determination of Non-Significance (August 7, 2000), SEPA Determination of Non-Significance (June 2, 2000) and Environmental Checklist (June 2, 2000).

III. Projects in the Airport Vicinity Initiated by Other Agencies

1. Central Puget Sound Regional Transit Authority: *Central Link Light Rail Transit Project* Final Environmental Impact Statement, Volume 1 and *Executive Summary Report* (November 1999).

2. Washington State Department of Transportation: *Selected SR 509/South Access Road EIS Discipline Reports*:

<i>Geology and Soils</i>	February 2000
<i>Vegetation, Wildlife and Fisheries</i>	March 2000
<i>Wetlands</i>	April 2000
<i>Section 4(f)</i>	August 2000
<i>Water Quality</i>	August 2000

3. City of Sea Tac: *SeaTac City Center Plan* Final Supplemental Programmatic Environmental Impact Statement (November 12, 1999).

4. Des Moines Creek Basin Committee: *Des Moines Creek Regional Capital Improvement Project Preliminary Design Report Alternative Analysis* (November 1, 1999).

5. Des Moines Creek Basin Committee: *Des Moines Creek Regional Capital Improvement Project Preliminary Design Report Alternative Analysis Addendum* (November 1, 1999).

6. Washington State Department of Ecology: *Sea-Tac Runway Fill Hydrologic Studies Report*. Northwest Regional Office, Bellevue Washington, (June 19, 2000).

The above documents will be available for public review at the following locations during the public comment period:

- The Port of Seattle Neighborhood Field Office at 19639 28<sup>th</sup> Avenue South, SeaTac WA 98188 Building E, Room SC4-1011A;
- Burien Public Library, 14700 6<sup>th</sup> Avenue Southwest, Burien WA 98166.
- Des Moines Public Library at 21620 11<sup>th</sup> South, Des Moines WA 98198.
- U.S. Army Corps of Engineers, Seattle District Law Library, Room 2131A 4735 E. Marginal Way South, Seattle WA 98124-2255.

**EVALUATION** - The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the

national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

The Corps is soliciting comments from the public; Federal, State, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to determine whether to issue, condition, or deny a permit for the work. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used to determine if supplemental documentation under the National Environmental Policy Act (NEPA) may be required, as appropriate. Comments may also be used to determine the overall public interest of the activity.

The evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act. This evaluation will include an alternatives analysis.

ADJACENT PROPERTY OWNERS - A list of adjacent property owners is available for review at the Seattle District offices and from the Port of Seattle at the address listed on the first page of this notice.

The State of Washington is reviewing this work for consistency with the approved Washington Coastal Zone Management Program.

The State of Washington is reviewing this work pursuant to the State Hydraulic Project Code.

The State of Washington water quality certification for the proposed work is necessary under the provisions of Section 401 of the Clean Water Act.

The State of Washington is reviewing this work for compliance with the State water quality standards. The Ecology will extend jurisdiction over 7.88 acres of lands as waters of the State considered as prior converted cropland by the Corps (non-jurisdictional under Federal law) on the Vacca Farm property. Accordingly, impacts being considered under water quality standards include an additional .92 of an acre of waters of the State to be filled at the Vacca Farm site, and an additional 6.92 acres of waters of the State temporarily impacted during construction of mitigation.

The FAA issued a Record of Decision on the SASA on 13 September 1994, and issued a Record of Decision for the Master Plan Update Development Actions on 3 July 1997.

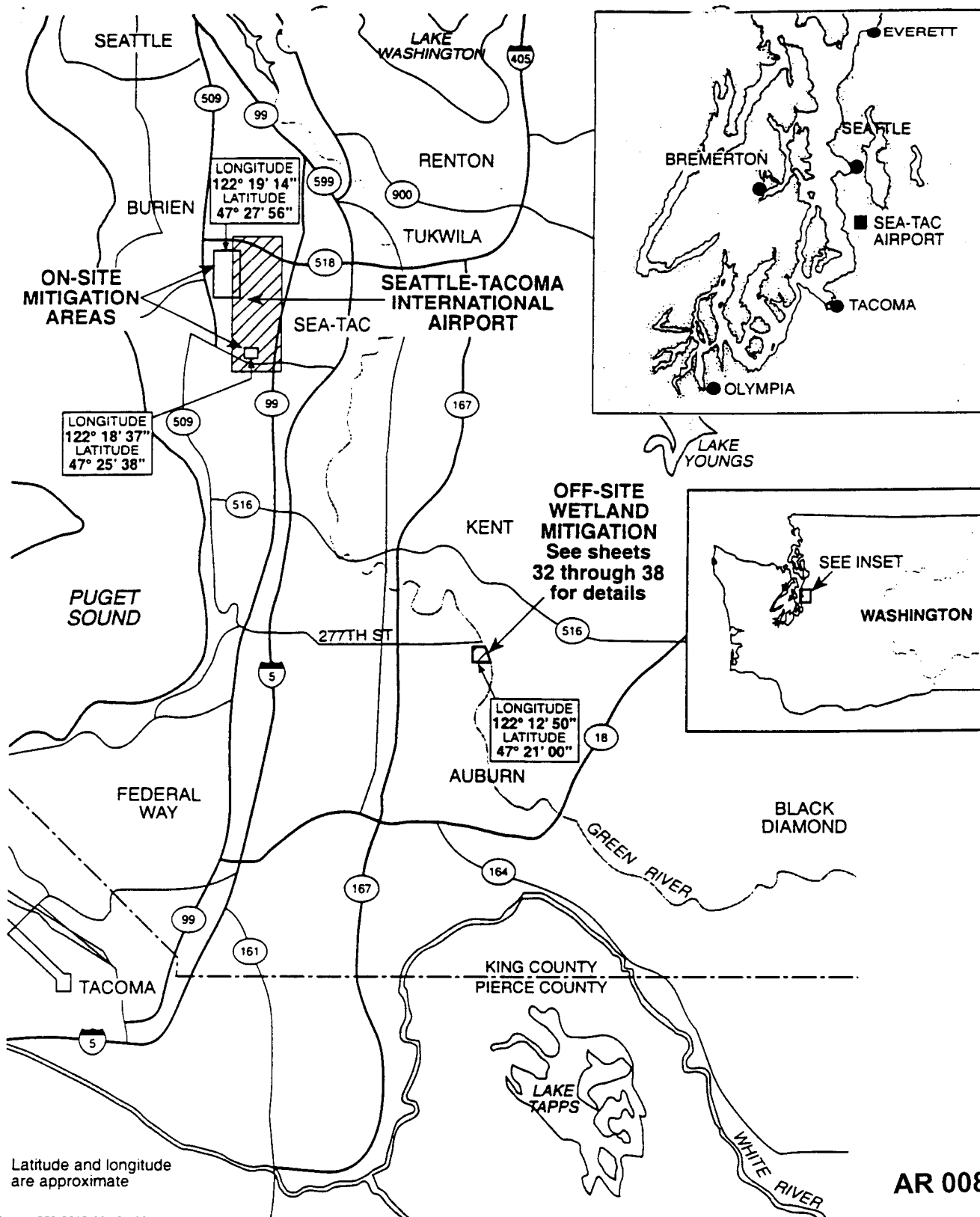
The Port has concluded that the portion of this action at STIA is outside the jurisdictional authority of the Shoreline Management Act of 1971.

1996-4-02325

COMMENT AND REVIEW PERIOD - Comments on these factors will be accepted and made part of the record and will be considered in determining whether it would be in the best public interest to grant a permit. Comments should reach this office, Attn: Regulatory Branch, not later than the expiration date of this public notice to ensure consideration and refer to the following name and file number:

Seattle, Port of  
1996-4-02325

Encl  
Drawings (38)



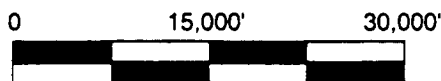
Note: Latitude and longitude are approximate

Port of Seattle/556-2912-001/01(03) 10/00

AR 008718

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

#### VICINITY MAP

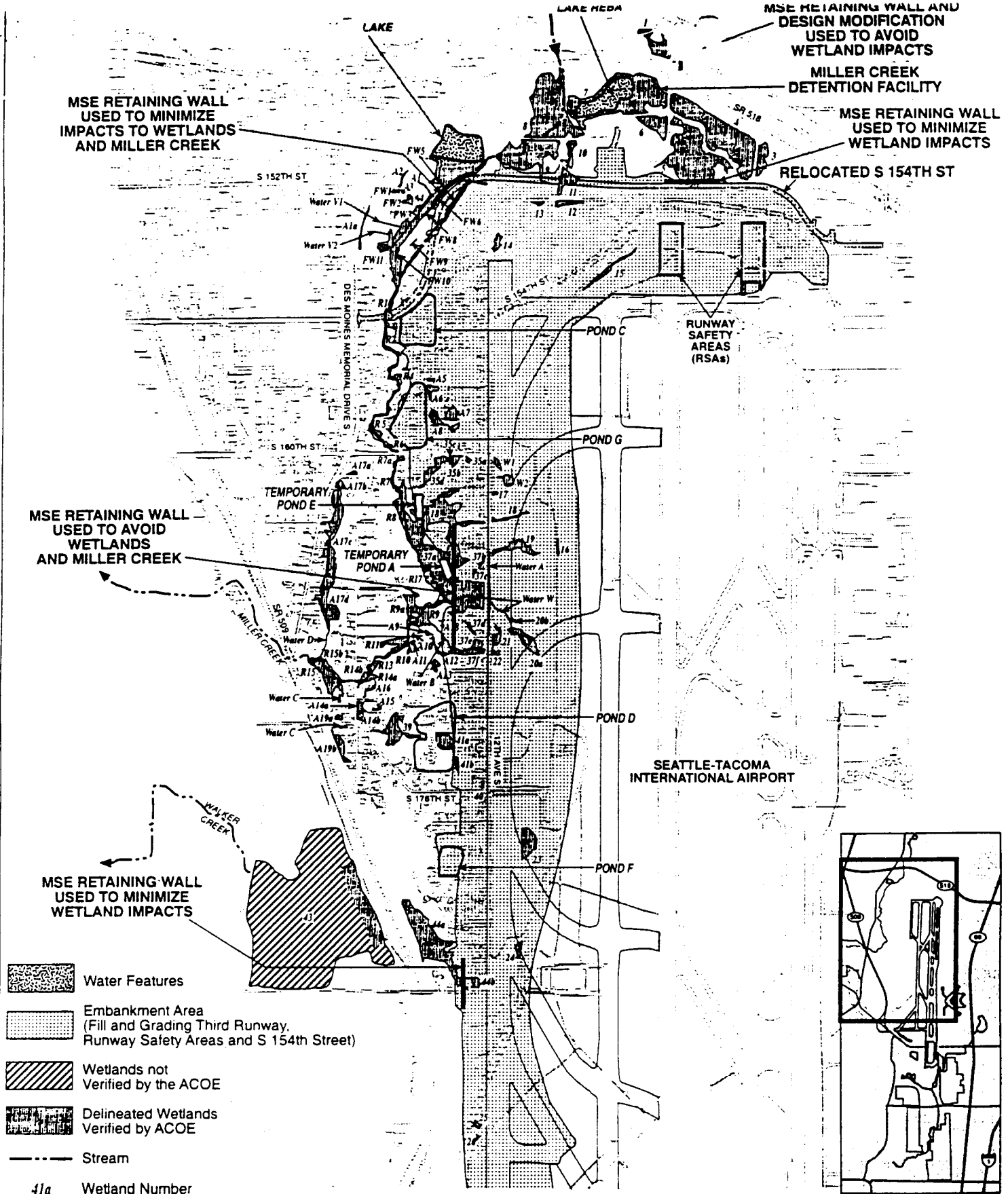


SCALE 1" = 15,000'

IMPACT/MITIGATION SITES FOR PROPOSED MASTER PLAN UPDATE IMPROVEMENTS AT SEATTLE TACOMA INTERNATIONAL AIRPORT  
 IN: SECTIONS 20, 21, 28, 29, 32, AND 33, TOWNSHIP 23N, RANGE 4E;  
 SECTIONS 4, 5, AND 9 TOWNSHIP 22N, RANGE 4E; AND SECTION 31 TOWNSHIP 22N, RANGE 5E  
 COUNTY OF: KING STATE: WA  
 APPLICATION BY: PORT OF SEATTLE  
 SHEET 1 of 38 DECEMBER 2000

96-4-02325





PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

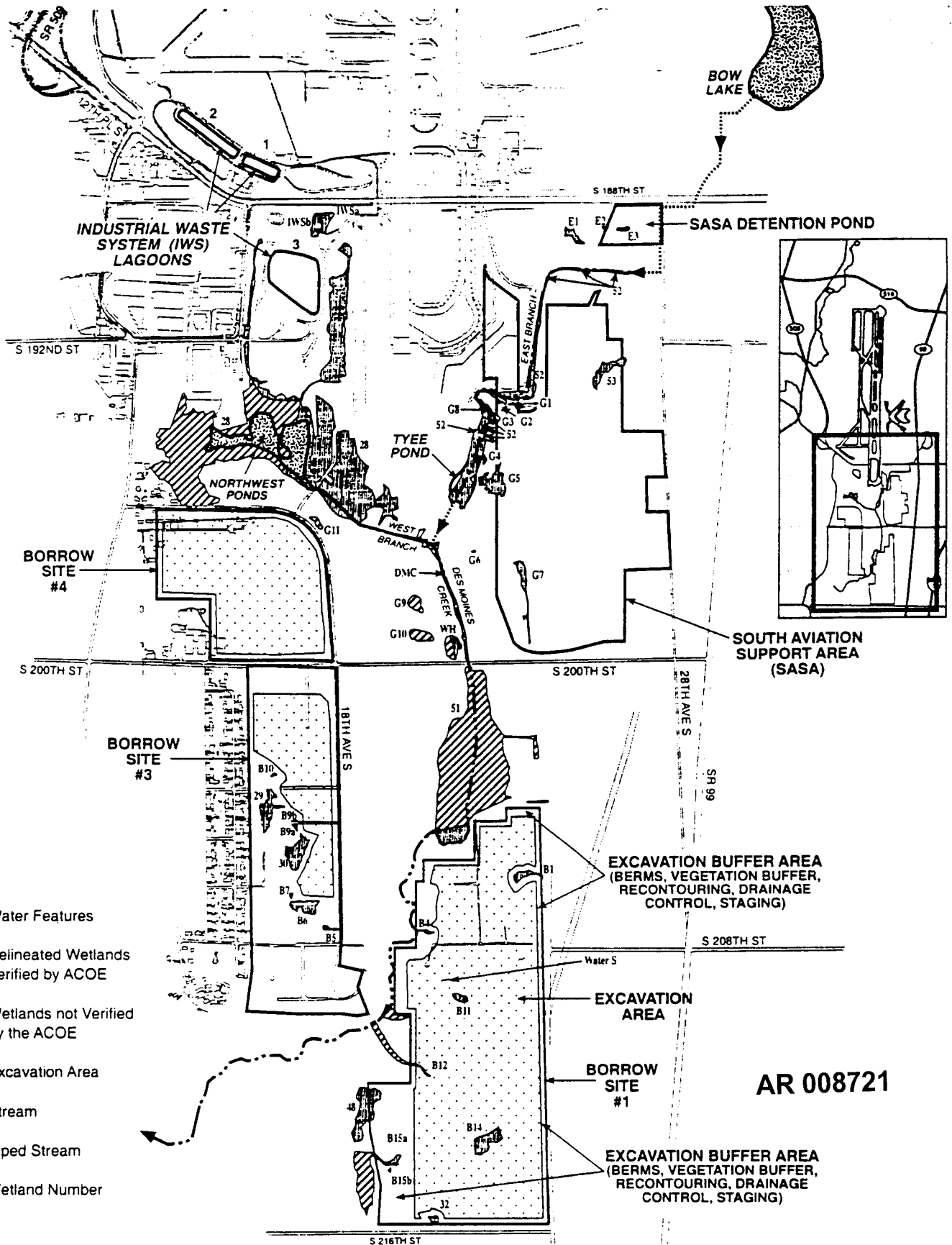
96-4-02325

AR 008720

0 800' 1,600'

SCALE 1" = 1,300'





Port of Seattle/556-2912-001/01(03) 12/00

**PURPOSE:** MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

96-4-02325

**PLAN VIEW**



0 800' 1,600'



SCALE 1" = 1,300'

**WETLANDS IN THE DES MOINES CREEK BASIN IMPACTED BY MASTER PLAN UPDATE IMPROVEMENTS**

IN SECTIONS 4, 5, AND 9 TOWNSHIP 22N, RANGE 4E

COUNTY OF: KING

STATE: WA

APPLICATION BY: PORT OF SEATTLE

SHEET 4 of 38

DECEMBER 2000

In the approximately 2,600-acre area that will be owned by the Port of Seattle after property acquisition is complete, there are approximately 117 delineated wetlands associated with Master Plan Update improvements totaling approximately 115 acres. Full implementation of the proposed Master Plan Update improvements will permanently impact approximately 18.37 acres of wetlands, including 8.17 acres of forested wetlands, 2.98 acres of scrub-shrub wetlands, and 7.22 acres of emergent wetlands. A complete description of wetlands in the impact area is included in the *Wetland Delineation Report* and *Natural Resource Mitigation Plan*.

Wetland Number	Vegetation Type <sup>a</sup>	Indirect Impact (acres)	Direct Impact (acres)	Total Impact (acres) <sup>b</sup>	Vegetation Types Impacted (acres)		
					Forested	Shrub	Emergent
Runway Safety Area Extension							
5	Shrub	0.00	0.14	0.14	0.07	0.07	0.00
	Subtotal	0.00	0.14	0.14	0.07	0.07	0.00
Third Runway Project Area							
9	Forested/Emergent	0.00	0.03	0.03	0.01	0.00	0.02
11	Forested/Emergent	0.16	0.34	0.50	0.40	0.00	0.10
12	Forested/Emergent	0.00	0.21	0.21	0.04	0.00	0.17
13	Emergent	0.00	0.05	0.05	0.00	0.00	0.05
14	Forested	0.00	0.19	0.19	0.19	0.00	0.00
West Airfield							
15	Emergent	0.00	0.28	0.28	0.00	0.00	0.28
16	Emergent	0.00	0.05	0.05	0.00	0.00	0.05
17	Emergent	0.00	0.02	0.02	0.00	0.00	0.02
18	Forested/Shrub/Emergent	0.55	2.29	2.84	1.28	0.75	0.81
19	Forested	0.00	0.56	0.56	0.56	0.00	0.00
20	Shrub/Emergent	0.00	0.57	0.57	0.00	0.51	0.06
21	Forested	0.00	0.22	0.22	0.22	0.00	0.00
22	Shrub/Emergent	0.00	0.06	0.06	0.00	0.01	0.05
23	Emergent	0.00	0.77	0.77	0.00	0.00	0.77
24	Emergent	0.00	0.14	0.14	0.00	0.00	0.14
25	Forested	0.00	0.06	0.06	0.06	0.00	0.00
26	Emergent	0.00	0.02	0.02	0.00	0.00	0.02
W1	Forested/Emergent	0.00	0.10	0.10	0.00	0.00	0.10
W2	Forested/Emergent	0.00	0.22	0.22	0.04	0.00	0.18
West Acquisition Area							
35a-d	Forested/Emergent	0.04	0.63	0.67	0.27	0.00	0.40
37a-f	Forested/Emergent	0.34	3.75	4.09	2.84	0.00	1.25
39	Forested	0.02	0.00	0.02	0.02	0.00	0.00
40	Forested	0.00	0.03	0.03	0.00	0.03	0.00
41a and b <sup>c</sup>	Emergent	0.00	0.44	0.44	0.00	0.00	0.44
44a and b	Forested	0.00	0.26	0.26	0.18	0.08	0.00
A5	Emergent	0.02	0.01	0.03	0.00	0.00	0.03

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND  96-4-02325	PERMANENT IMPACTS TO WETLANDS	IN: SECTIONS 20, 21, 28, 29, 32, AND 33, TOWNSHIP 23N, RANGE 4E; SECTIONS 4, 5, AND 9, TOWNSHIP 22N, RANGE 4E; SECTION 31, TOWNSHIP 22N, RANGE 5E COUNTY OF: KING STATE: WA APPLICATION BY: PORT OF SEATTLE SHEET 5 OF 38      DECEMBER 2000

Wetland Number	Classification <sup>a</sup>	Indirect (acres)	Direct (acres)	Total Impact (acres) <sup>b</sup>	Vegetation Types Impacted (acres)		
					Forested	Shrub	Emergent
A6	Forested	0.09	0.07	0.16	0.16	0.00	0.00
A7	Forested	0.00	0.30	0.30	0.30	0.00	0.00
A8	Forested/Shrub	0.00	0.38	0.38	0.07	0.31	0.00
A12	Shrub	0.06	0.02	0.08	0.00	0.08	0.00
A 18	Shrub	0.01	0.00	0.01	0.00	0.01	0.00
<b>Vacca Farm Site</b>							
A1	Forested/Shrub/Emergent	0.00	0.59	0.59	0.09	0.09	0.41
FW 5	Farmed Wetland	0.00	0.08	0.08	0.00	0.00	0.08
FW 6	Farmed Wetland	0.00	0.07	0.07	0.00	0.00	0.07
<b>Riparian Wetland</b>							
R1	Emergent	0.00	0.13	0.13	0.00	0.00	0.13
	<b>Subtotal</b>	<b>1.29</b>	<b>12.94</b>	<b>14.23</b>	<b>6.73</b>	<b>1.87</b>	<b>5.63</b>
<b>South Aviation Support Area (SASA)/Tyee Valley Golf Course</b>							
52	Forested/Shrub/Emergent	0.54	0.00	0.54	0.54	0.00	0.00
53	Forested	0.00	0.60	0.60	0.60	0.00	0.00
E2	Forested	0.00	0.04	0.04	0.04	0.00	0.00
E3	Forested	0.00	0.06	0.06	0.06	0.00	0.00
G1	Shrub (Slope)	0.00	0.05	0.05	0.00	0.05	0.00
G2	Emergent	0.00	0.02	0.02	0.00	0.00	0.02
G3	Emergent	0.02	0.04	0.06	0.00	0.00	0.06
G4	Emergent	0.04	0.00	0.04	0.00	0.00	0.04
G5	Emergent	0.47	0.40	0.87	0.00	0.00	0.87
G7	Forested/Shrub	0.00	0.50	0.50	0.13	0.37	0.00
	<b>Subtotal</b>	<b>1.07</b>	<b>1.71</b>	<b>2.78</b>	<b>1.37</b>	<b>0.42</b>	<b>0.99</b>
<b>Borrow Area and Haul Road</b>							
28	Emergent	0.00	0.07	0.07	0.00	0.00	0.07
B11	Emergent	0.00	0.18	0.18	0.00	0.00	0.18
B12	Forested	0.04	0.03	0.07	0.00	0.07	0.00
B14	Shrub	0.00	0.78	0.78	0.00	0.55	0.23
	<b>Subtotal</b>	<b>0.04</b>	<b>1.06</b>	<b>1.10</b>	<b>0.00</b>	<b>0.62</b>	<b>0.48</b>
<b>Mitigation<sup>d</sup></b>							
Auburn area 7	Emergent	0.00	0.02	0.02	0.00	0.00	0.02
Auburn area 9	Emergent	0.00	0.03	0.03	0.00	0.00	0.03
Auburn area 10	Emergent	0.00	0.07	0.07	0.00	0.00	0.07
	<b>Subtotal</b>	<b>0.00</b>	<b>0.12</b>	<b>0.12</b>	<b>0.00</b>	<b>0.00</b>	<b>0.12</b>
<b>TOTAL</b>		<b>2.40</b>	<b>15.97</b>	<b>18.37</b>	<b>8.17</b>	<b>2.98</b>	<b>7.22</b>

<sup>a</sup> All wetlands are palustrine, based on USFWS wetland classification system (Cowardin et al. 1979).

<sup>b</sup> Values are rounded to two significant figures and may be subject to minor change.

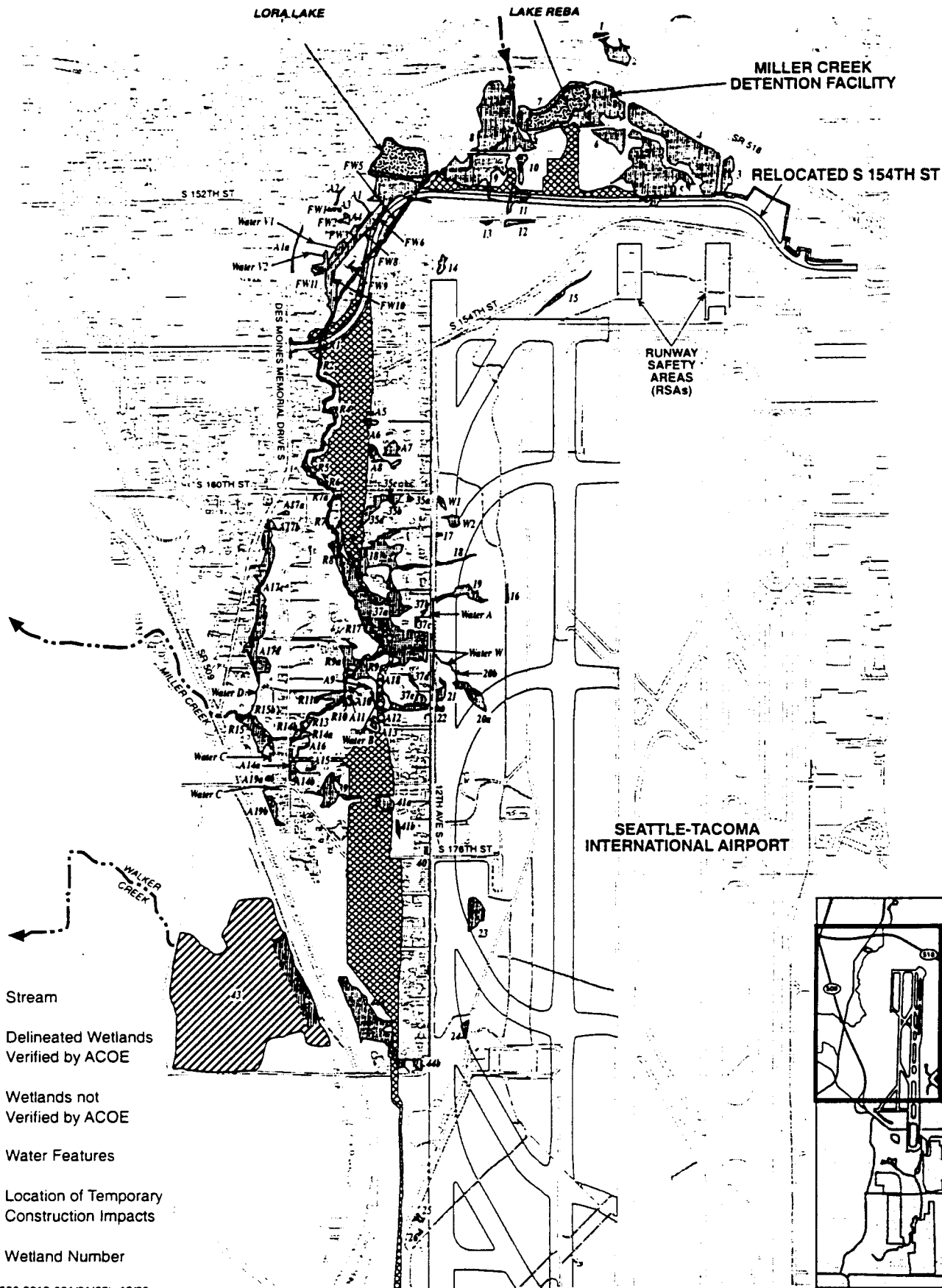
<sup>c</sup> Includes 0.18 acre of open water habitat.

<sup>d</sup> Impacts result from access roads (see Sheet 33 of 38).

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND	PERMANENT IMPACTS TO WETLANDS (continuation of Sheet 5 of 38)	IN: SECTIONS 20, 21, 28, 29, 32, AND 33, TOWNSHIP 23N, RANGE 4E; SECTIONS 4, 5, AND 9, TOWNSHIP 22N, RANGE 4E; SECTION 31, TOWNSHIP 22N, RANGE 5E COUNTY OF: KING STATE: WA APPLICATION BY: PORT OF SEATTLE SHEET 6 OF 38
96-4-02325		DECEMBER 2000

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AR 008723



Port of Seattle/556-2912-001/01(03) 12/00

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

96-4-02325

AR 008724

PLAN VIEW



0 800' 1,600'



SCALE 1" = 1,300'

TEMPORARY PROJECT CONSTRUCTION  
IMPACTS TO WETLANDS IN THE  
MILLER CREEK BASIN

SECTIONS 20, 21, 28, 29, 32 AND 33,  
TOWNSHIP 23N, RANGE 4E

COUNTY OF: KING

STATE: WA

APPLICATION BY: PORT OF SEATTLE

SHEET 7 of 38

NOVEMBER 2000

Wetland	Classification <sup>a</sup>	Total Temporary Impact Area (acres)	Forest	Vegetation Type Impacted (acres)	
				Shrub	Emergent
Runway Safety Area Extension					
4	Forested <sup>b</sup>	0.20	0.20	0.00	0.00
5	Forested /Shrub <sup>b</sup>	0.20	0.10	0.10	0.00
Third Runway					
9	Forested/Emergent	0.16	0.11	0.00	0.05
18	Forested/Shrub/Emergent	0.22	0.04	0.07	0.11
37	Forested/Shrub/Emergent	0.71	0.50	0.10	0.11
44a	Forested/Shrub	0.28	0.18	0.10	0.00
A1	Forested/Shrub/Emergent <sup>b</sup>	0.05	0.01	0.01	0.03
A12	Shrub	0.03	0.00	0.03	0.00
A13	Forested	0.01	0.01	0.00	0.00
R2	Emergent	0.02	0.00	0.00	0.02
South Aviation Support Area					
52	Forested/Shrub/Emergent <sup>b</sup>	0.17	0.00	0.05	0.12
TOTAL		2.05	1.15	0.46	0.44

<sup>a</sup> All wetlands are palustrine, based on USFWS wetland classification system (Cowardin et al. 1979).

<sup>b</sup> Temporary impacts will be limited to installation of sediment fencing and other standard BMPs such as temporary seeding, straw mulch, interception swales, etc.

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND	TEMPORARY CONSTRUCTION IMPACTS TO WETLANDS FROM MASTER PLAN UPDATE IMPROVEMENTS, SEATTLE-TACOMA INTERNATIONAL AIRPORT	IN: SECTIONS 20, 21, 28, 29, 32, AND 33, TOWNSHIP 23N, RANGE 4E; SECTIONS 4, 5, AND 9, TOWNSHIP 22N, RANGE 4E COUNTY OF: KING STATE: WA APPLICATION BY: PORT OF SEATTLE SHEET 8 OF 38      DECEMBER 2000
96-4-02325		

G:\Data\working\2912\53291201\03mpu\2000 JARPA\New Tables\Export Table Temp Impacts.doc

AR 008725

Wetland	Vegetation Types	Total Area (acres)	Vegetation Type Disturbed (acres)		
			Forest	Shrub	Emergent
Temporary impacts to wetlands associated with implementing mitigation that includes excavation or installation of temporary roads					
FW 1, 2, 3, 8, 9, 10, and FW 11 <sup>a</sup>	Farmed Wetlands	0.88	0.00	0.00	0.88
A1 <sup>a</sup>	Forest/Shrub/Emergent	3.74	0.56	0.56	2.62
A2 <sup>a</sup>	Shrub	0.05	0.00	0.05	0.00
A3 <sup>a</sup>	Shrub	0.01	0.00	0.01	0.00
A4 <sup>a</sup>	Shrub	0.03	0.00	0.03	0.00
Auburn Area 1 <sup>b</sup>	Emergent	1.55	0.00	0.00	1.55
Auburn Area 2 <sup>c</sup>	Emergent	0.06	0.00	0.00	0.06
Auburn Area 3 <sup>c</sup>	Emergent	5.11	0.00	0.00	5.11
Auburn Area 4 <sup>c</sup>	Emergent	0.99	0.00	0.00	0.99
Auburn Area 5 <sup>c</sup>	Emergent	3.27	0.00	0.00	3.27
Auburn Area 6 <sup>c</sup>	Emergent	0.35	0.00	0.00	0.35
Auburn Area 8 <sup>c</sup>	Emergent	0.60	0.00	0.00	0.60
Auburn Area 11 <sup>c</sup>	Emergent	0.01	0.00	0.00	0.01
Auburn <sup>d</sup>	Emergent	2.20	0.00	0.00	2.20
	Subtotal	18.85	0.56	0.65	17.64
Temporary impacts in wetlands associated with enhancement planting					
18 <sup>e</sup>	Forest/Shrub/Emergent	1.27	1.27	0.00	0.00
28 <sup>f</sup>	Forest/Shrub/Emergent	4.50	0.00	0.00	4.50
37a <sup>e,i</sup>	Forest/Emergent	1.96	1.50	0.00	0.46
A1 <sup>e,i</sup>	Forest/Shrub/Emergent	0.34	0.34	0.00	0.00
A9 <sup>e,i</sup>	Shrub	0.04	0.00	0.04	0.00
A10 <sup>e,i</sup>	Shrub	0.01	0.00	0.01	0.00
A11 <sup>e,i</sup>	Shrub	0.02	0.00	0.02	0.00
A13 <sup>e,i</sup>	Forest	0.12	0.12	0.00	0.00
A16 <sup>e,i</sup>	Shrub/Emergent	0.05	0.00	0.00	0.05
R1 <sup>e</sup>	Emergent	0.04	0.00	0.00	0.04
R2 <sup>e,i</sup>	Shrub/Emergent	0.12	0.00	0.06	0.06
R3 <sup>e,i</sup>	Shrub	0.02	0.00	0.02	0.00
R4 <sup>e,i</sup>	Emergent	0.11	0.00	0.00	0.11
R4b <sup>e,i</sup>	Forest/Emergent	0.11	0.03	0.00	0.08
R5 <sup>e,i</sup>	Emergent	0.05	0.00	0.00	0.05
R5b <sup>e,i</sup>	Forest/Emergent	0.07	0.02	0.00	0.05
R6 <sup>e,i</sup>	Forest/Emergent	0.21	0.05	0.00	0.16
R6b <sup>e,i</sup>	Emergent	0.09	0.00	0.00	0.09
R7 <sup>e,i</sup>	Forest/Emergent	0.04	0.04	0.00	0.00
R7a <sup>e,i</sup>	Emergent	0.04	0.04	0.00	0.00
R8 <sup>e,i</sup>	Shrub/Emergent	0.40	0.00	0.20	0.20

Continued on Sheet 10 of 38

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND  96-4-02325	TEMPORARY IMPACTS TO WELANDS DUE TO WETLAND MITIGATION ACTIVITIES	IN: SECTIONS 20, 21, 28, 29, 32, AND 33, TOWNSHIP 23N, RANGE 4E; SECTIONS 4, 5, AND 9, TOWNSHIP 22N, RANGE 4E; SECTION 31, TOWNSHIP 22N, RANGE 5E COUNTY OF: KING STATE: WA APPLICATION BY: PORT OF SEATTLE SHEET 9 OF 38 DECEMBER 2000
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AR 008726

Wetland	Vegetation Types	Total Area (acres)	Vegetation Type Disturbed (acres)		
			Forest	Shrub	Emergent
R9 <sup>c,i</sup>	Forest	0.38	0.38	0.00	0.00
R9a <sup>c,i</sup>	Forest/Shrub/Emergent	0.30	0.30	0.00	0.00
R10 <sup>c,i</sup>	Shrub	0.04	0.04	0.00	0.00
R11 <sup>c,i</sup>	Emergent	0.42	0.00	0.00	0.42
R12 <sup>c,i</sup>	Forest	0.03	0.03	0.00	0.00
R13 <sup>c,i</sup>	Emergent	0.12	0.00	0.00	0.12
R14a <sup>c,i</sup>	Shrub/Emergent	0.13	0.13	0.00	0.00
R14b <sup>c,i</sup>	Emergent	0.08	0.00	0.00	0.08
R15a <sup>c,i</sup>	Forest/Shrub/Emergent	0.79	0.25	0.40	0.14
R15b <sup>c,i</sup>	Forest/Emergent	0.25	0.06	0.00	0.19
R17 <sup>c,i</sup>	Forest	0.31	0.31	0.00	0.00
Waters B, V1, V2	Open Water	0.05	0.00	0.00	0.05
Auburn <sup>h</sup>	Emergent	9.13	0.00	0.00	9.13
	<b>Subtotal</b>	<b>21.64</b>	<b>4.91</b>	<b>0.75</b>	<b>15.98</b>
<b>TOTAL</b>		<b>40.49</b>	<b>5.47</b>	<b>1.40</b>	<b>33.62</b>

<sup>a</sup> Temporary impacts associated with restoration activities at the Vacca Farm site (Sheets 14 and 19).

<sup>b</sup> Temporary impacts result from constructing temporary roads to provide access to the mitigation site (Sheet 33).

<sup>c</sup> Excavation in wetlands at off-site mitigation site to increase habitat diversity/complexity, construction of temporary roads to access the interior portion of the site to conduct monitoring and maintenance activities, and approximately 3 acres of temporary staging area.

<sup>d</sup> Maximum of 2.20 acres of existing off-site ditches and farmed wetland will be converted to a wetland drainage channel that connects the mitigation site to the 100-year floodplain of the Green River (Sheet 33).

<sup>e</sup> Enhancements in these wetlands may include excavation for temporary irrigation systems (Sheet 3).

<sup>f</sup> Planting and removal of culverts in wetland located at the Tyee Valley Golf Course (Sheet 30).

<sup>g</sup> Existing drain tiles will be removed and natural wetland topography restored.

<sup>h</sup> Mowing, disking, and planting in existing meadow wetland.

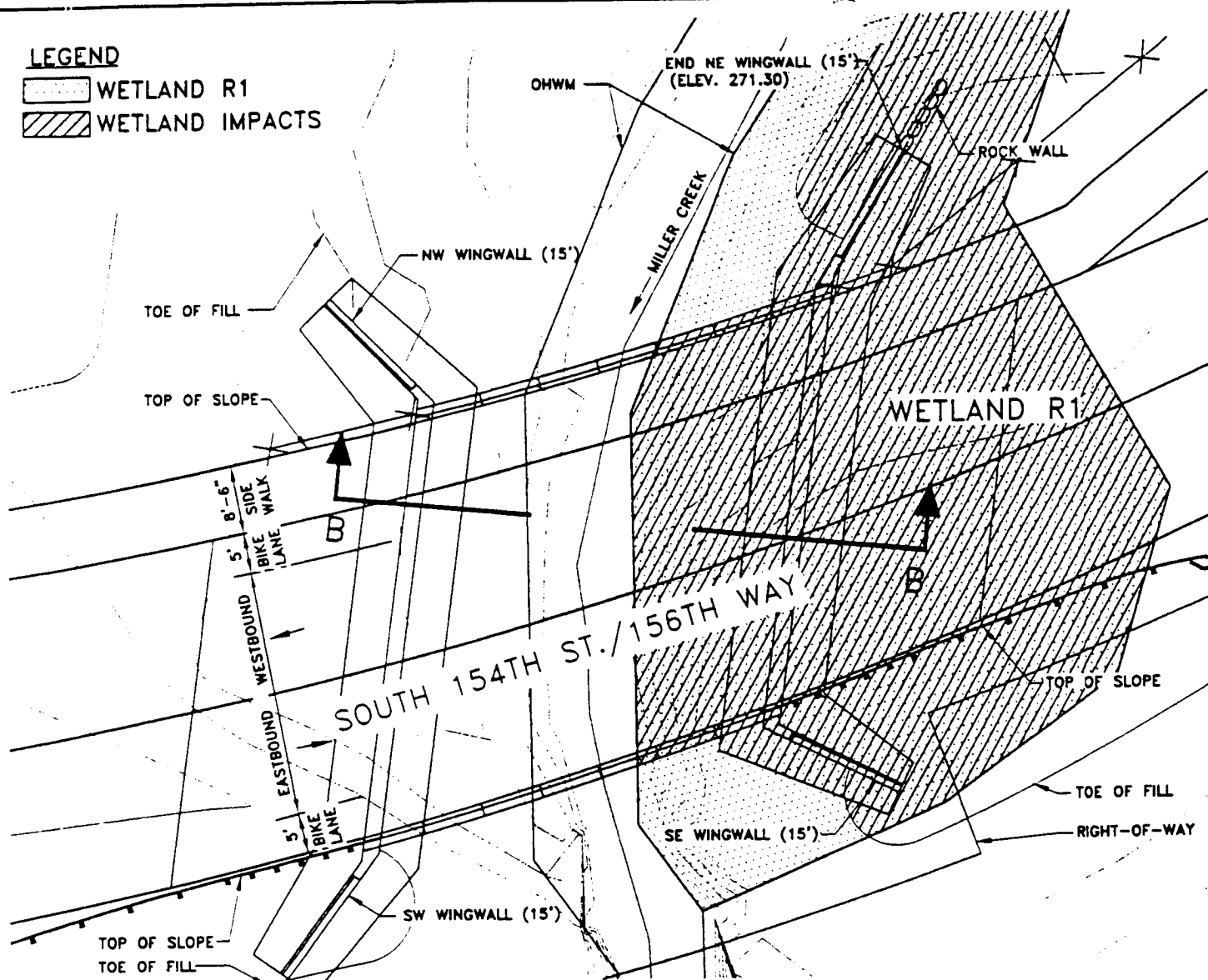
<sup>i</sup> Wetlands in the Miller Creek riparian buffer to be enhanced.

AR 008727

<b>PURPOSE:</b> MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND  96-4-02325	<b>TEMPORARY IMPACTS TO WETLANDS DUE TO WETLAND MITIGATION ACTIVITIES</b> (continuation of Sheet 9 of 38)	<b>IN: SECTIONS 20, 21, 28, 29, 32, AND 33, TOWNSHIP 23N, RANGE 4E; SECTIONS 4, 5, AND 9, TOWNSHIP 22N, RANGE 4E; SECTION 31, TOWNSHIP 22N, RANGE 5E COUNTY OF: KING STATE: WA APPLICATION BY: PORT OF SEATTLE SHEET 10 OF 38 DECEMBER 2000</b>
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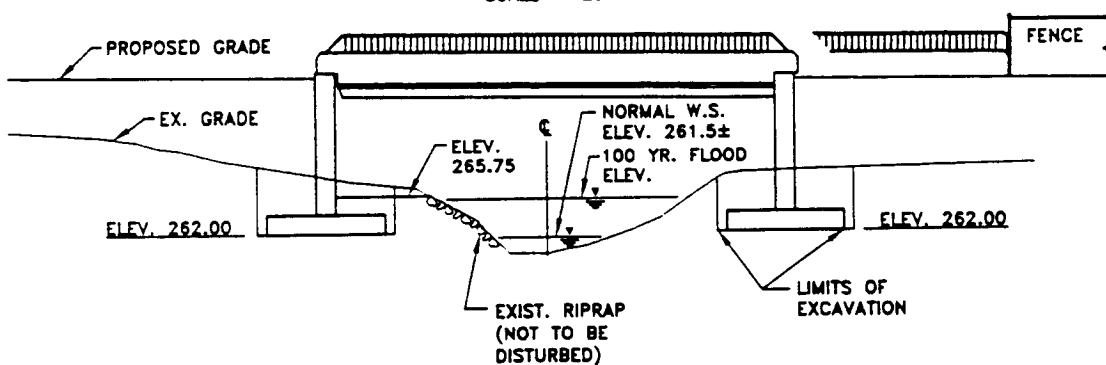
# LEGEND

-  WETLAND R1
-  WETLAND IMPACTS



## PLAN

SCALE 1"=20'



## SECTION - B

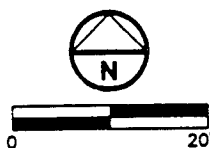
SCALE 1"=20'

NOTE:  
ALL DISTURBED AREAS WILL BE  
STABILIZED USING APPROPRIATE BMPS.

AR 008728

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET ANTICIPATED  
FUTURE DEMAND

PLAN VIEW



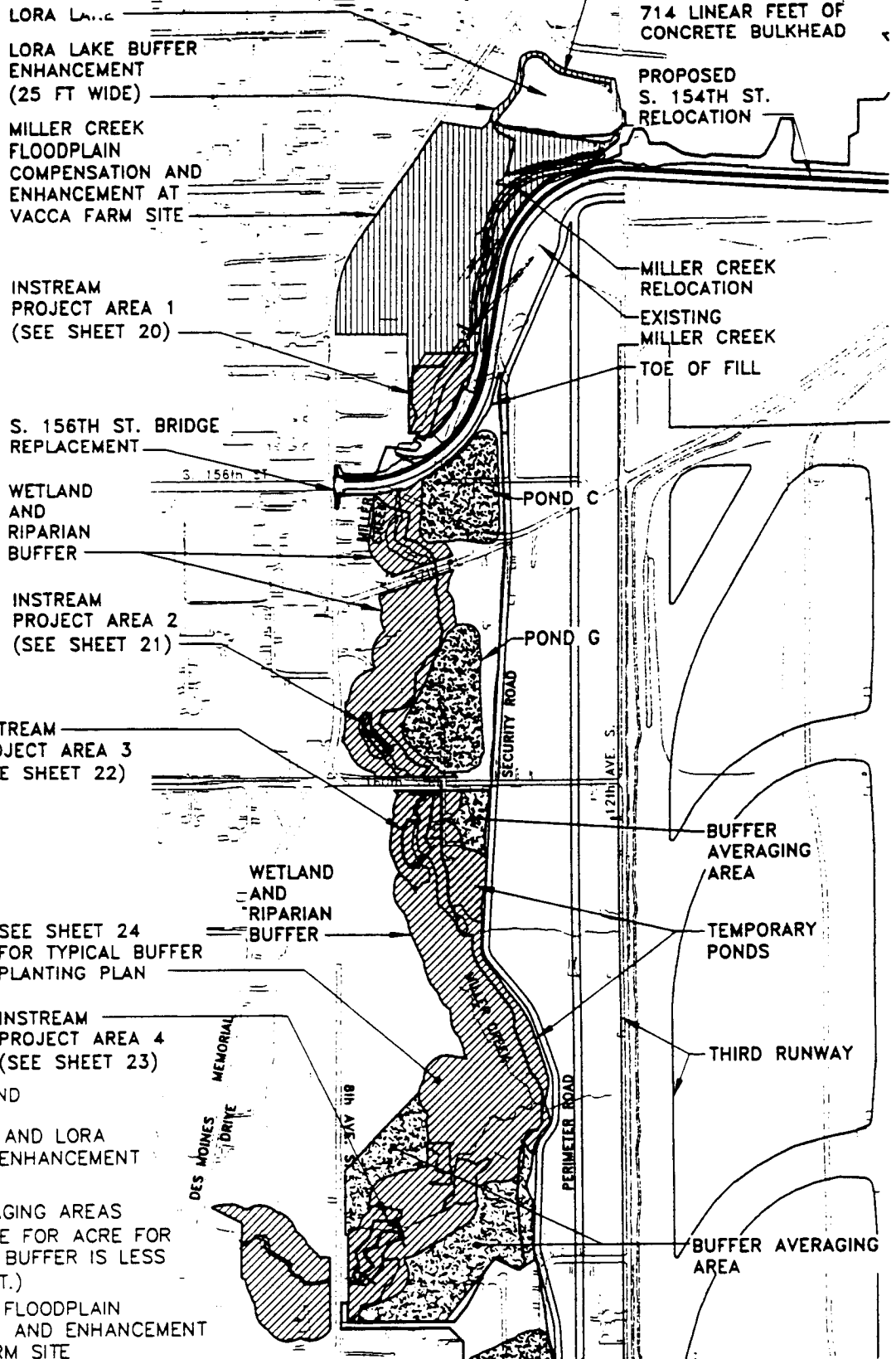
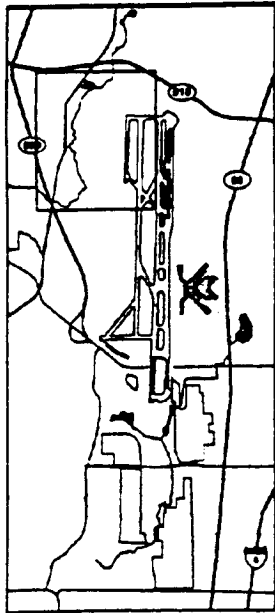
SCALE: 1"=20'

SOUTH 156th WAY BRIDGE  
RELOCATION



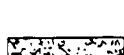
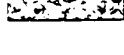
IN: SECTION 20, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 11 OF 38 DECEMBER 2000

96-4-02325





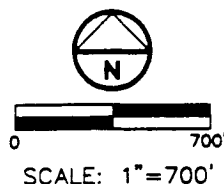
# LEGEND:

-  DETENTION POND
-  MILLER CREEK AND LORA LAKE BUFFER ENHANCEMENT AREAS
-  BUFFER AVERAGING AREAS (REPLACE ACRE FOR ACRE FOR AREAS WHERE BUFFER IS LESS THAN 100 FEET.)
-  MILLER CREEK FLOODPLAIN COMPENSATION AND ENHANCEMENT AT VACCA FARM SITE

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

DATUM: SEATAC GRID  
96-4-02325

## PLAN VIEW



## IN-BASIN MITIGATION PROJECTS MILLER CREEK BASIN

IN: SECTIONS 20,29 TOWNSHIP 23N,  
RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 12 OF 38 DECEMBER 2000

## Summary of Wetland Mitigation Areas

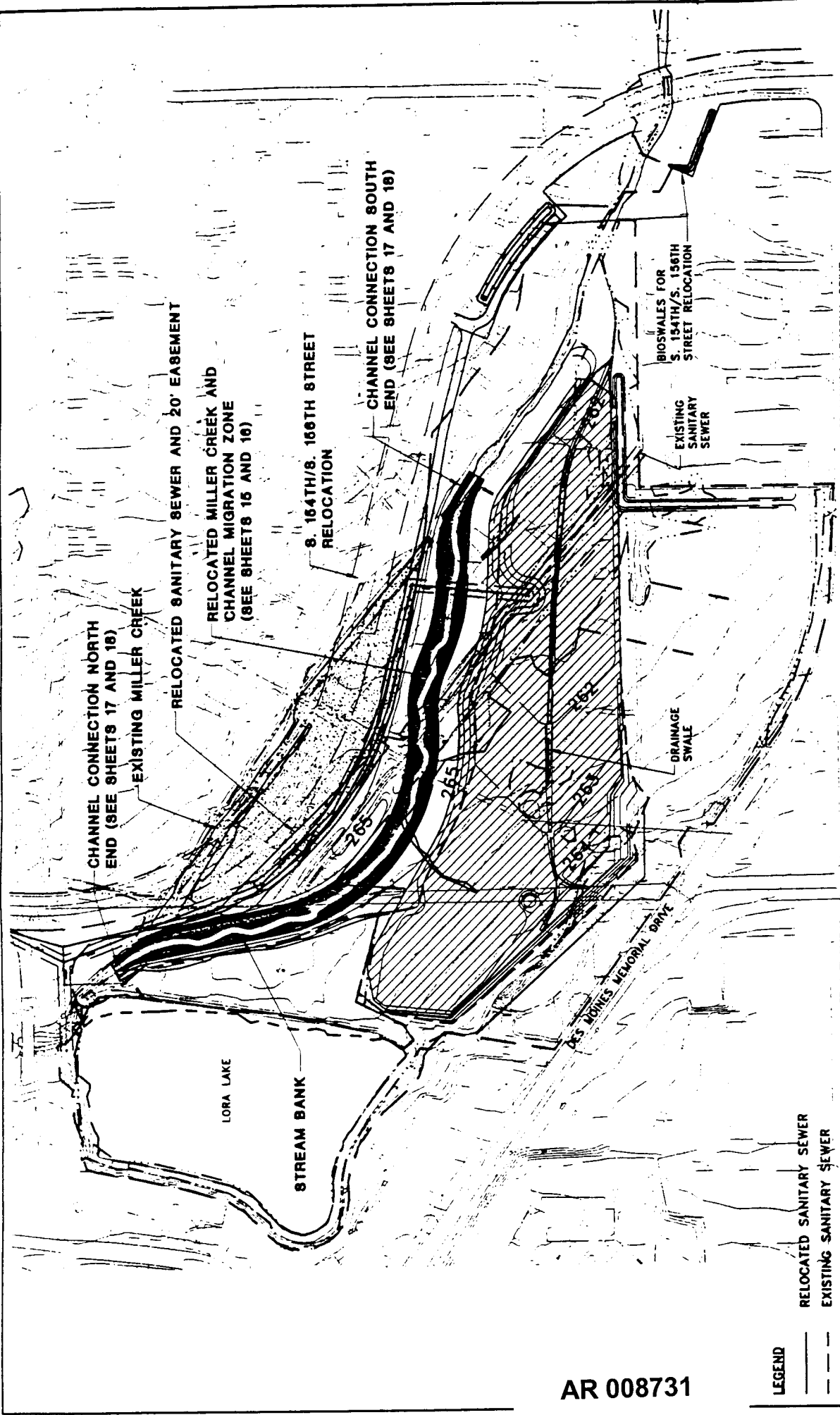
Mitigation	Mitigation Area (acres)
<b>In-Basin</b>	
<u>Wetland Restoration</u>	
Vacca Farm (prior converted wetland and other upland)	6.60
<u>Wetland Enhancement</u>	
Vacca Farm (Farmed Wetland, Other Wetlands, Lora Lake and Water Quality)	5.70
Wetlands in Miller Creek Wetland and Riparian Buffer	7.40
Tyee Valley Golf Course Wetland 28	4.50
Wetland in Des Moines Creek Buffer	1.01
<b>Subtotal</b>	<b>25.21</b>
<u>Buffer Enhancement</u>	
Miller Creek Buffer, South of Vacca Farm (not including enhanced wetlands)	32.00
Vacca Farm (Des Moines Memorial Drive and new Miller Creek channel)	4.58
Lora Lake	0.27
Tyee Valley Golf Course Mitigation Area Buffer <sup>1</sup>	1.57
Des Moines Creek Upland Buffer <sup>2</sup>	3.38
<b>Subtotal</b>	<b>41.80</b>
<u>Other Actions</u>	
Miller Creek Channel Replacement	--
Miller Creek Instream Enhancement Projects	--
Miller Creek Drainage Channel Replacement	--
Trust Fund of \$300,000 for Miller and Des Moines Creek Basins	--
<b>Total In-Basin Mitigation</b>	<b>67.01<sup>3</sup></b>
<b>Out-of-Basin</b>	
<u>Wetland Restoration</u>	29.98
<u>Wetland Enhancement</u>	19.50
<u>Buffer Enhancement</u>	15.90
<b>Total Out-of-Basin Mitigation</b>	<b>65.38</b>
<b>TOTAL MITIGATION</b>	<b>134.39</b>

<sup>1</sup> This includes buffer around the 4.5 acres of wetland enhancement.

<sup>2</sup> This enhancement is located along the west branch of Des Moines Creek, south of the Tyee Valley Golf Course Mitigation Area.

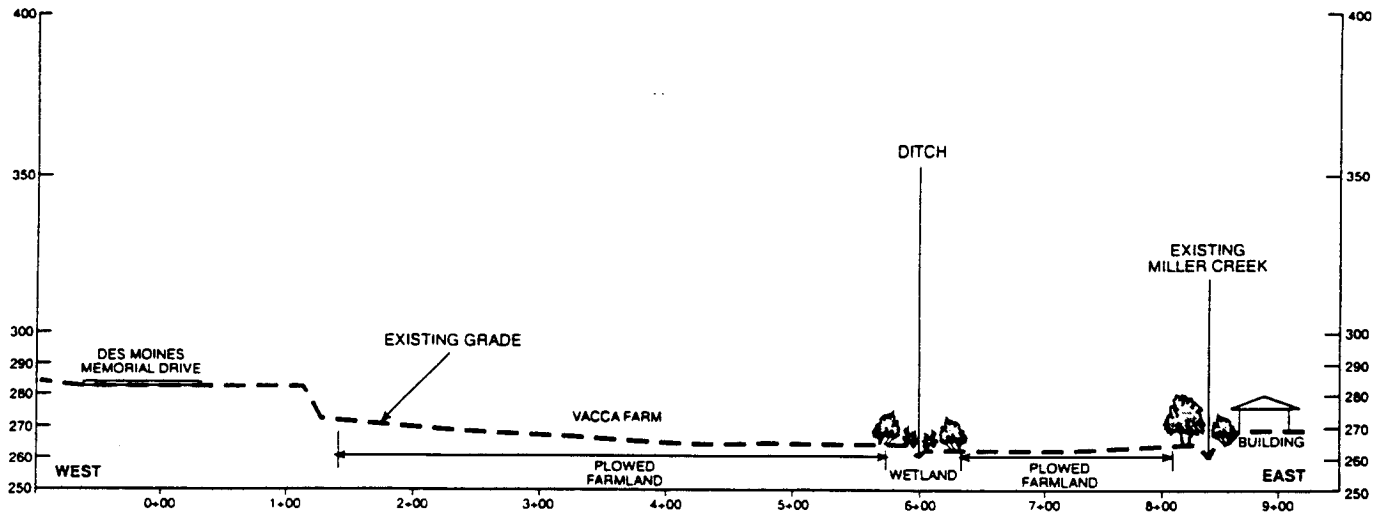
<sup>3</sup> Mitigation area in the Des Moines and Miller Creek watersheds is 10.46 acres and 56.55 acres respectively; in-basin mitigation area divided by wetland impact (18.37 acres) provides 3:1 aerial replacement ratio.

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND  96-4-02325	SUMMARY OF WETLAND MITIGATION	IN: SECTIONS 20, 21, 28, 29, 32, AND 33, TOWNSHIP 23N, RANGE 4E; SECTIONS 4, 5, TOWNSHIP 22N, RANGE 4E; SECTION 31, TOWNSHIP 22N, RANGE 5E COUNTY OF: KING STATE: WA APPLICATION BY: PORT OF SEATTLE SHEET 13 OF 38 DECEMBER 2000
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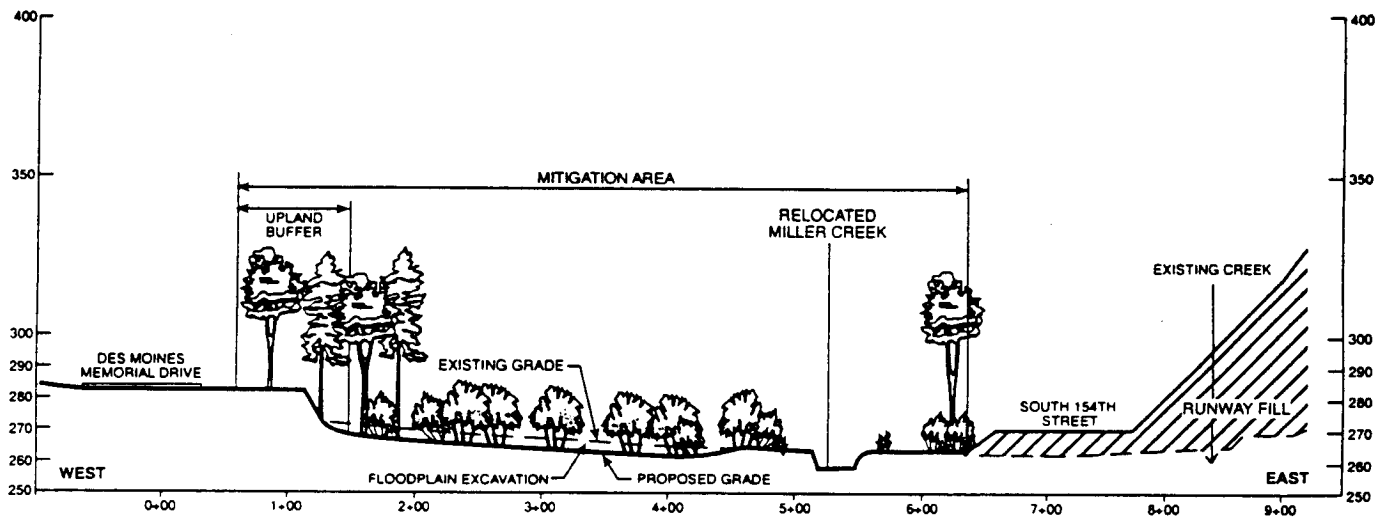


AR 008731

# Existing Conditions



# Post-Mitigation



AR 008732

Port of Seattle/556-2912-001/01(03) 12/00

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

DATUM: VERTICAL: KING COUNTY  
HORIZONTAL: SEA-TAC GRID

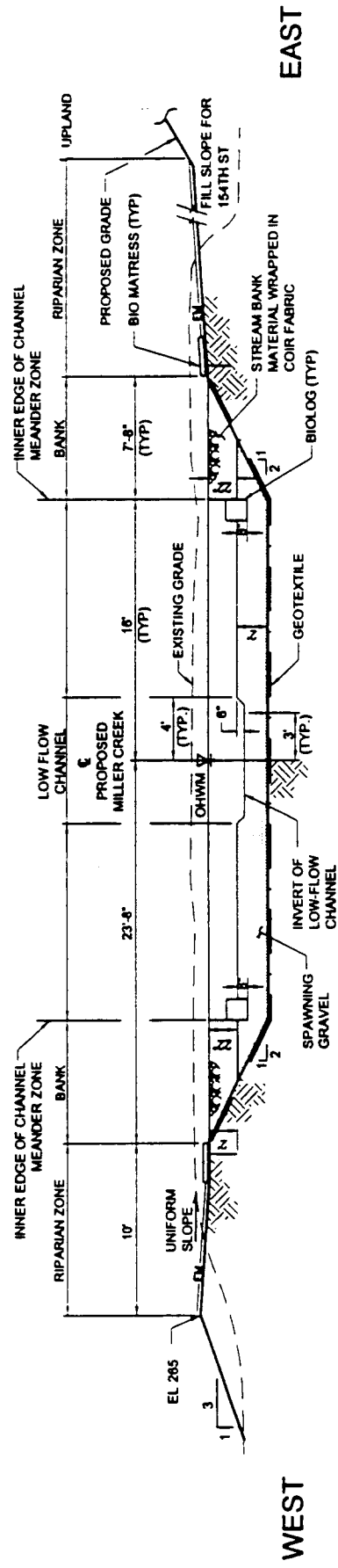
96-4-02325

## SECTION VIEW

VERTICAL SCALE 1" = 60'  
HORIZONTAL SCALE 1" = 150'

TYPICAL CROSS SECTION PROPOSED  
GRADING FOR MILLER CREEK  
RELOCATION AND FLOODPLAIN  
ENHANCEMENT AT VACCA FARM

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 15 of 38 DECEMBER 2000



TYPICAL CHANNEL CROSS SECTION,  
MILLER CREEK RELOCATION

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE

SHEET 16 OF 38 DECEMBER 2000

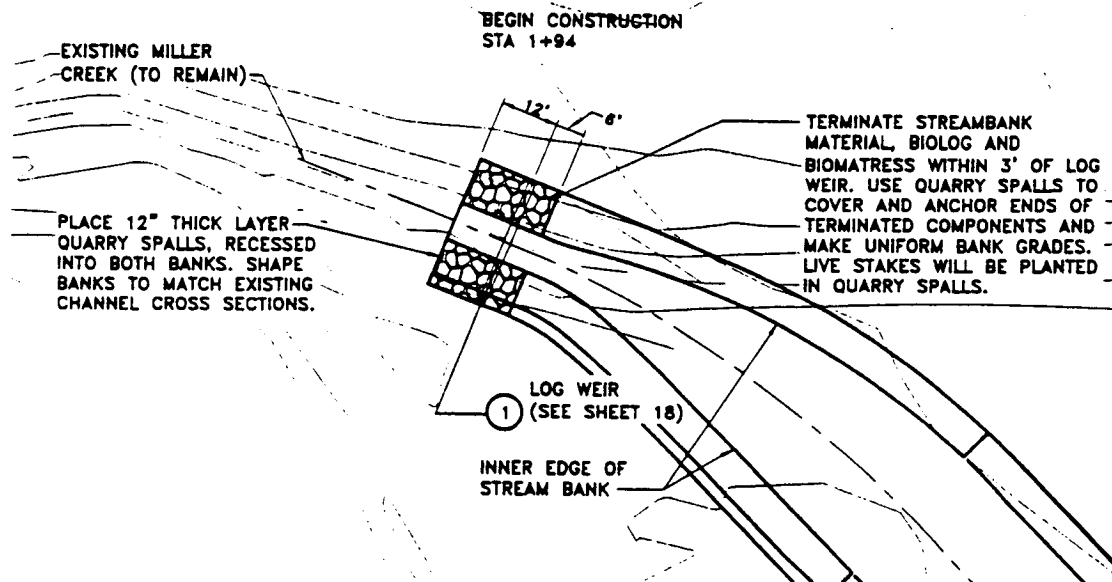
TYPICAL CROSS SECTION

SCALE 1" = 10'

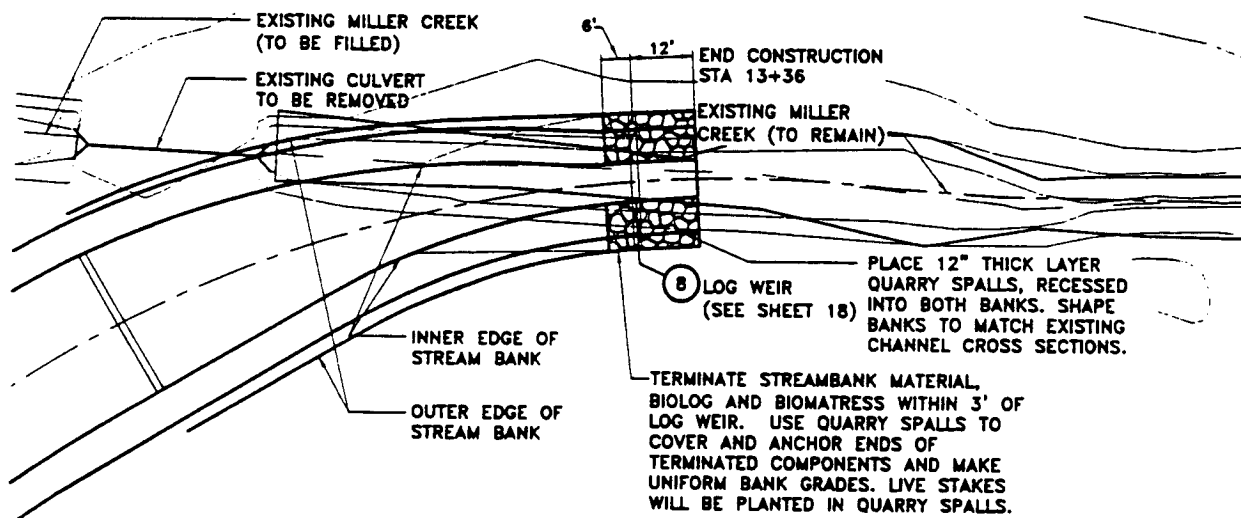
PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

96-4-02325

AR 008733



**DETAIL**  
CHANNEL CONNECTION  
NORTH END  
SCALE: 1"=40'



**DETAIL**  
CHANNEL CONNECTION  
SOUTH END  
SCALE: 1"=40'

AR 008734

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

DATUM: SEATAC GRID  
96-4-02325

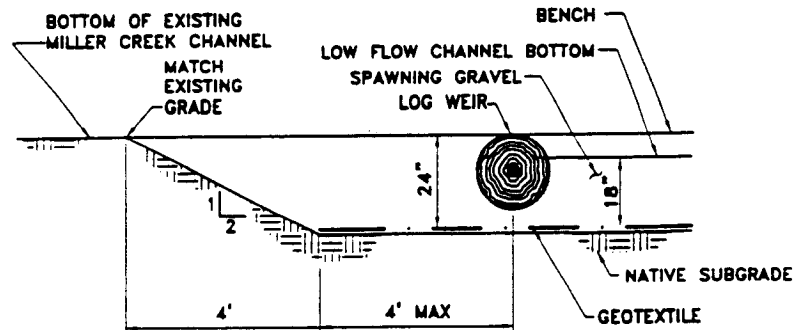
PLAN VIEW

SCALE: AS SHOWN

RELOCATED MILLER CREEK CHANNEL  
CONNECTIONS TO EXISTING CREEK

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 17 OF 38 DECEMBER 2000

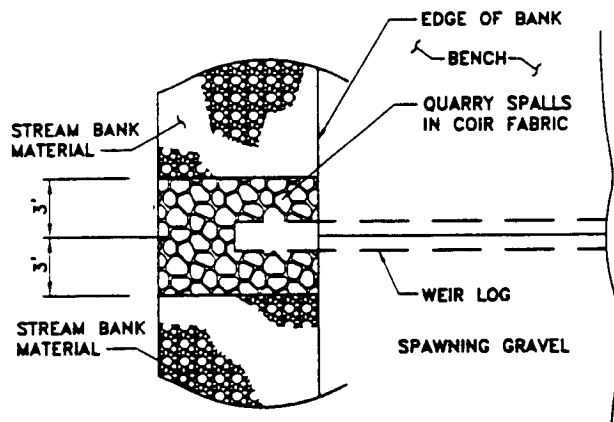
— STREAM FLOW DIRECTION, LOG WEIR NO. 1 —  
 — STREAM FLOW DIRECTION, LOG WEIR NO. 1 —



### CHANNEL END SECTION

(SEE SHEET 17)

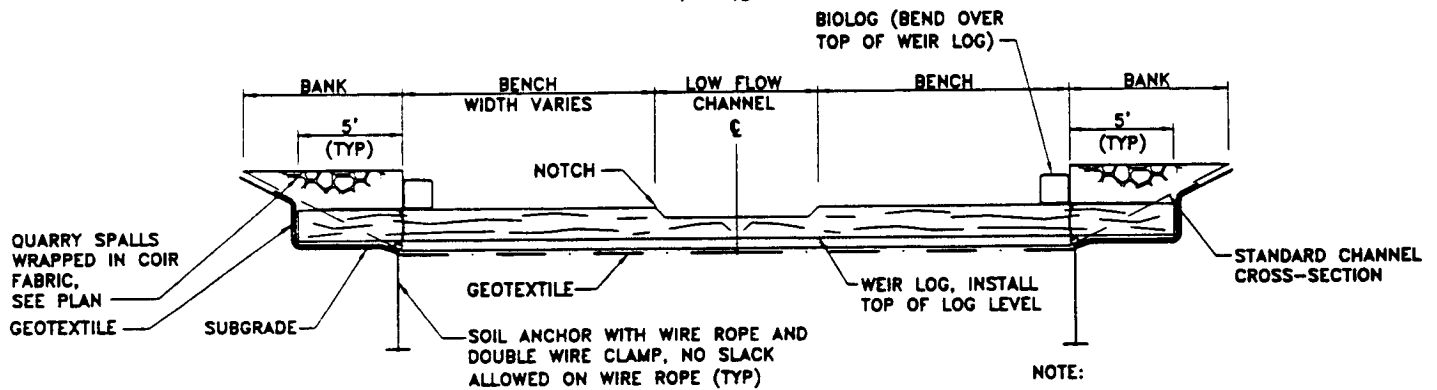
1" = 4'



### DETAIL

(SEE SHEET 17)

1" = 10'



### TYPICAL LOG WEIR SECTION

(SEE SHEET 17)

1" = 10'

NOTE:

COIR FABRIC USED AT LOG WEIRS No. 2-7 ONLY.

WEIR NOTCH DEPTH CAN VARY FROM 4" TO 8" AS NEEDED TO PROVIDE LEVEL SURFACE ACROSS NOTCH WIDTH.

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

CROSS SECTIONS AND DETAIL

AR 008735

SCALE AS SHOWN

DETAIL, RELOCATED MILLER CREEK LOG WEIRS

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E

COUNTY OF: KING

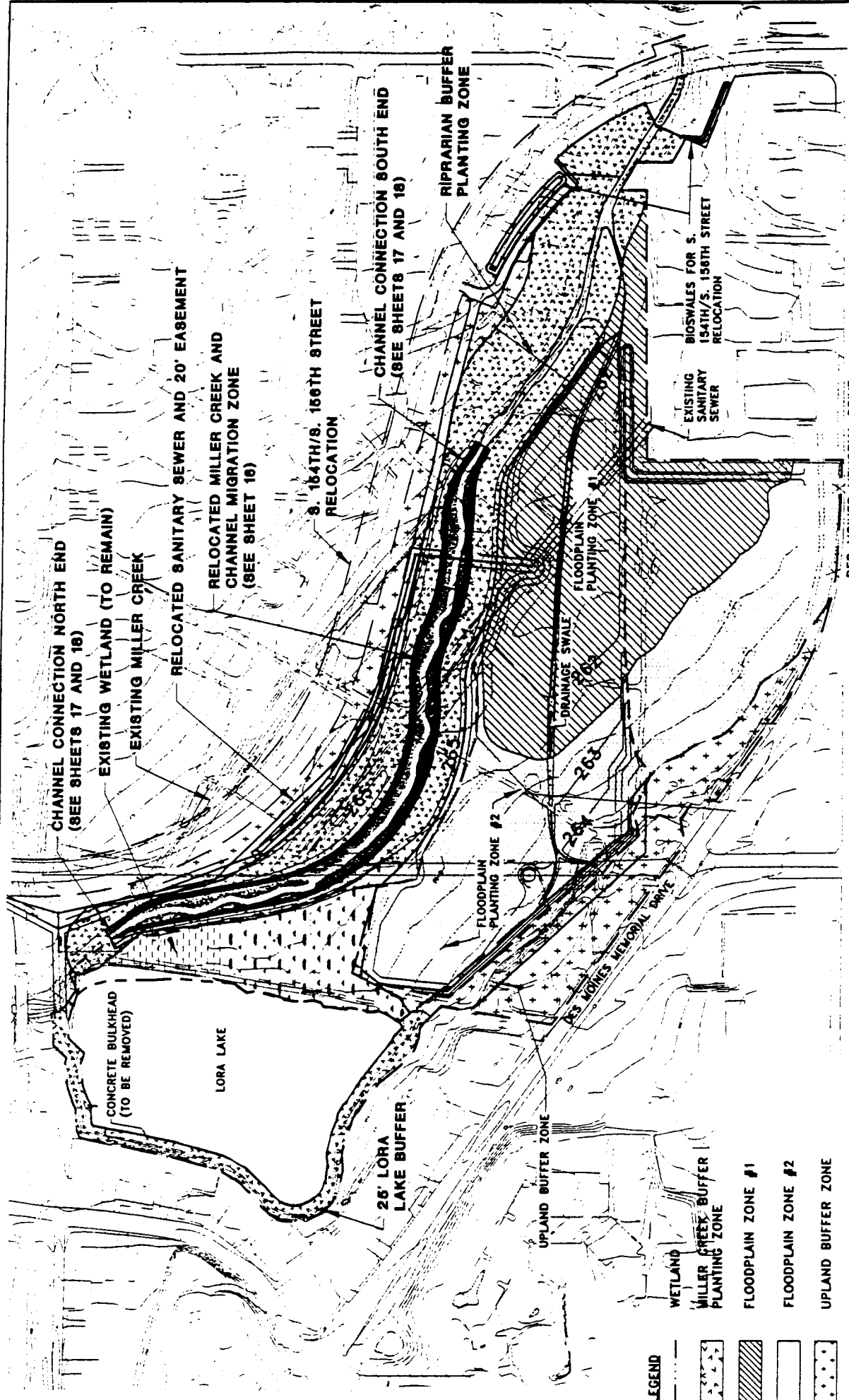
STATE OF: WA

APPLICATION BY: PORT OF SEATTLE

SHEET 18 OF 38

DECEMBER 2000

96-4-02325



LEGEND

- WETLAND
- MILLER CREEK BUFFER PLANTING ZONE
- FLOODPLAIN ZONE #1
- FLOODPLAIN ZONE #2
- UPLAND BUFFER ZONE
- ENHANCED EXISTING WETLAND
- EXISTING WETLAND (TO REMAIN)
- RIPIARIAN PLANTING
- EXISTING CONTOUR
- PROPOSED CONTOUR
- LIMIT OF CONSTRUCTION
- RELOCATED SANITARY SEWER
- EXISTING SANITARY SEWER

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

DATUM: SEATAC GRID

96-4-02325

PLAN VIEW



CONTOUR INTERVAL = 2 FEET  
SCALE 1" = 225'

PLANTING ZONES FOR THE MILLER  
CREEK RELOCATION AND FLOODPLAIN  
ENHANCEMENT AT VACCA FARM  
IN: SECTION 20, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE

SHEET 19 OF 38

DECEMBER 2000





1. ROCK RIPRAP TO BE REMOVED AND DISPOSED ON SITE IN AN UPLAND LOCATION DETERMINED BY THE ENGINEER.
2. TO BE DISPOSED OFF SITE IN AN APPROVED LOCATION.
3. BUILDINGS SHOWN WITH ... HAVE BEEN REMOVED BY THE PORT OF SEATTLE.
4. REGRADE CHANNEL IN PROJECT AREA TO MATCH THE AVERAGE EXISTING GRADIENT BETWEEN STATION 29+50 (WATERFALL) AND STATION 39+56.7 (CULVERT AT S. 180TH); FILL WITH A GRAVEL/COBBLE MIX.
5. DISTURBED AREAS WILL BE STABILIZED BY HYDROSEEDING, EROSION CONTROL FABRIC, BIOENGINEERING, OR OTHER APPROVED METHOD.
6. WETLAND AND RIPARIAN BUFFER ENHANCEMENTS ARE SHOWN IN THE NATURAL RESOURCE MITIGATION PLAN AND SHEET 24 OF 38.

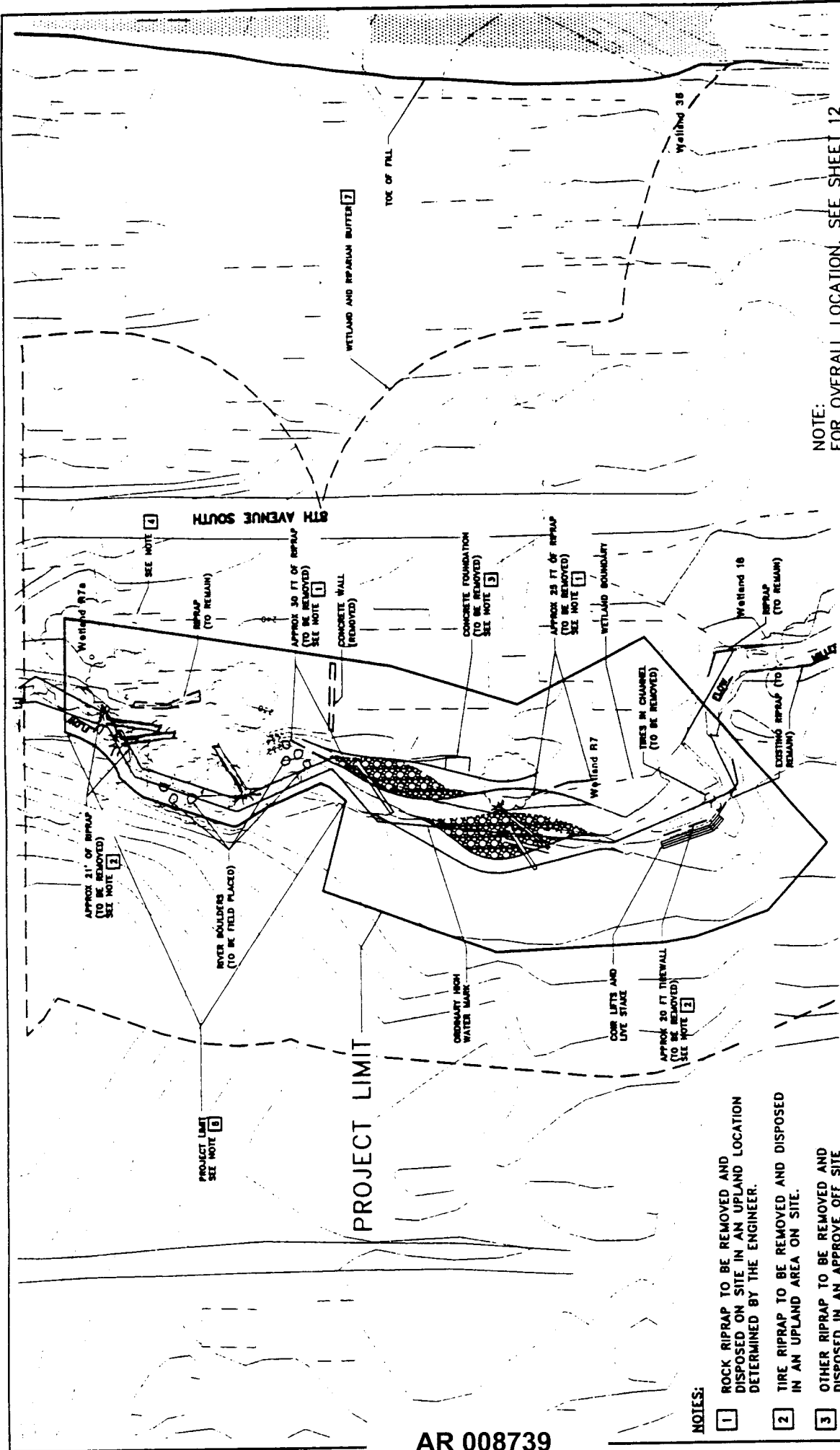
96-4-02325

0 30'

SCALE 1" = 30'

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 21 OF 38 DECEMBER 2000

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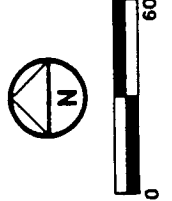


NOTE:  
FOR OVERALL LOCATION, SEE SHEET 12

## INSTREAM PROJECT 3

IN: SECTION 29, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 22 OF 38 DECEMBER 2000

PLAN VIEW



**PURPOSE:** MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

DATUM: SEATAC GRID

**96-4-02325**

**NOTES:**

1. ROCK RIPRAP TO BE REMOVED AND DISPOSED ON SITE IN AN UPLAND LOCATION DETERMINED BY THE ENGINEER.
2. TIRE RIPRAP TO BE REMOVED AND DISPOSED IN AN UPLAND AREA ON SITE.
3. OTHER RIPRAP TO BE REMOVED AND DISPOSED IN AN APPROVE OFF SITE LOCATION.
4. BUILDINGS SHOWN WITH HAVE BEEN REMOVED BY THE PORT OF SEATTLE.
5. PROJECT BOUNDARY IN THIS AREA IS TOP OF BANK.
6. DISTURBED AREAS WILL BE STABILIZED BY HYDROSEEDING, EROSION CONTROL FABRIC, BIOENGINEERING, OR OTHER APPROVED METHOD.
7. WETLAND AND RIPARIAN BUFFER ENHANCEMENTS ARE SHOWN IN THE NATURAL RESOURCE MITIGATION PLAN AND SHEET 24 OF 38.



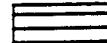


Wetland



Existing vegetation to remain




Existing non-native invasive plant species to be removed and replaced with native riparian trees and shrubs




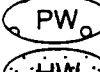


Areas for partial non-native plant removal. Native coniferous trees will be planted to provide shading

### Riparian Floodplain Zone

#### TREES

-  Western Redcedar
-  Red Alder
-  Oregon Ash

#### SHRUBS



-  Sitka Willow
-  Pacific Willow
-  Hooker's Willow
-  Hydroseed Mix/Natural Colonization

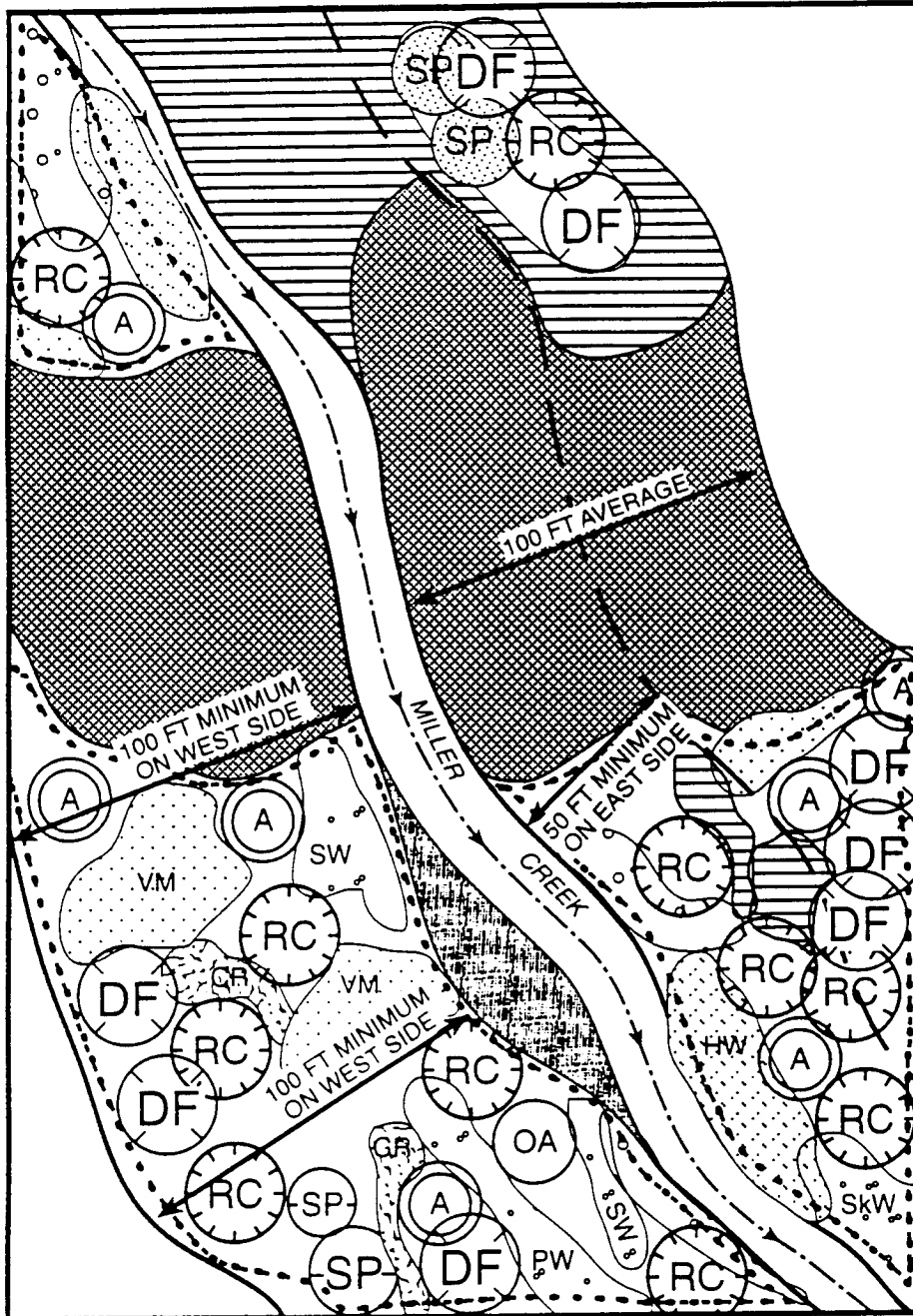
### Upland Zone

#### TREES

-  Western Redcedar
-  Sitka Spruce
-  Douglas Fir
-  Red Alder
-  Cascara

#### SHRUBS

-  Vine Maple
-  Clustered Rose



Port of Seattle/556-2912-001/01(03) 12/00

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

PLAN VIEW

AR 008741

SCALE 1" = 50'

TYPICAL PLANTING PLAN FOR THE MILLER CREEK UPLAND AND RIPARIAN BUFFER

IN: SECTIONS 20 AND 29, TOWNSHIP 23N, RANGE 4E

COUNTY OF: KING

STATE: WA

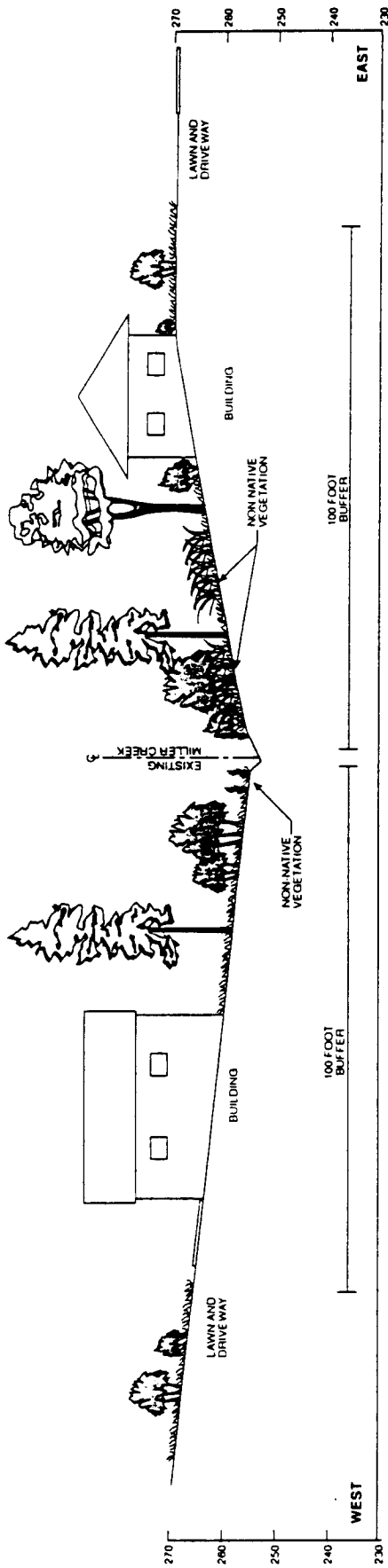
APPLICATION BY: PORT OF SEATTLE

SHEET 24 of 38

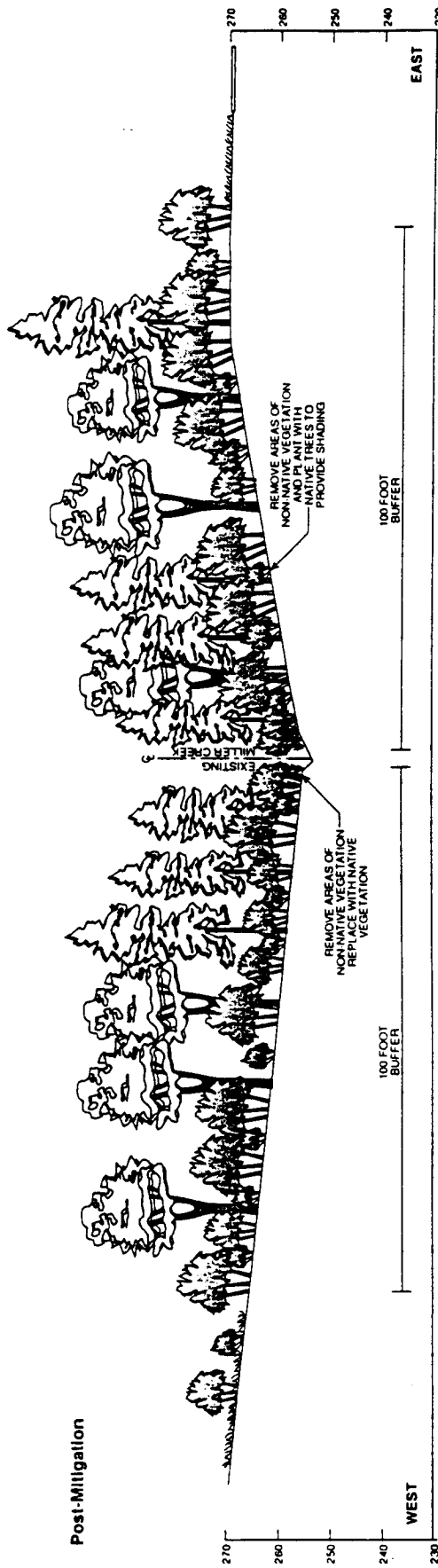
DECEMBER 2000

96-4-02325

# Existing Conditions



# Post-Mitigation



AR 008742

Port of Seattle/556-2912-001/01/03 12/00

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

DATUM: VERTICAL: KING COUNTY  
HORIZONTAL: SEA-TAC GRID

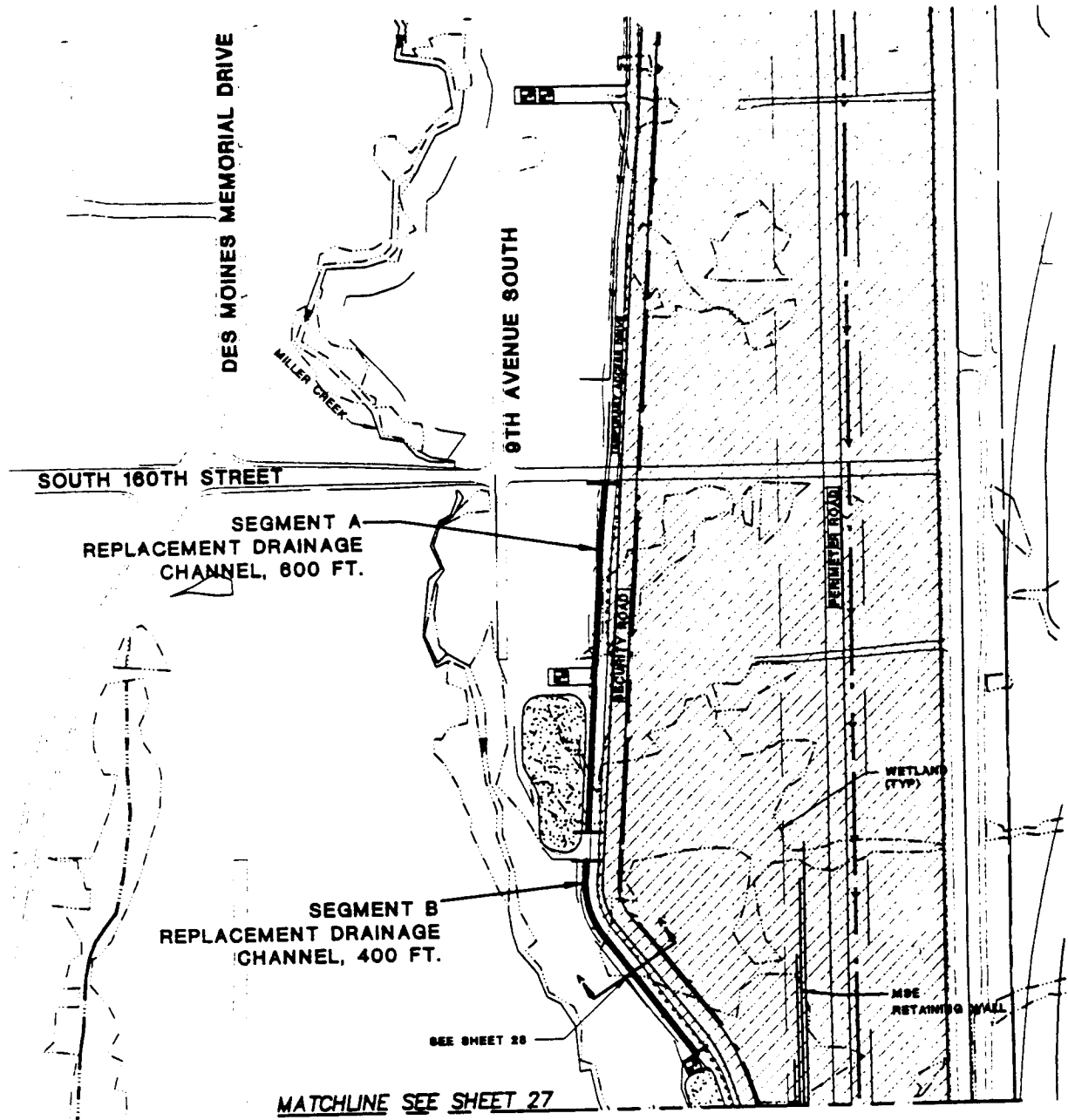
96-4-02325

## SECTION VIEW

NOT TO SCALE

## MILLER CREEK TYPICAL BUFFER ENHANCEMENT

IN: SECTION 20, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 25 of 38 DECEMBER 2000



# LEGEND

- Replacement Drainage Channel
- Temporary Drainage Channel
- Toe of Embankment

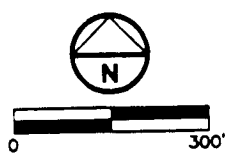
- Drainage Collection Swale
- Embankment
- Wetland

AR 008743

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

DATUM: SEATAC GRID  
96-4-02325

## PLAN VIEW



SCALE: 1" = 300'

LOCATION OF PROPOSED REPLACEMENT DRAINAGE CHANNEL AND SWALES ALONG THE WEST SIDE OF THE THIRD RUNWAY EMBANKMENT, NORTH HALF

IN: SECTION 29, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 26 OF 38 DECEMBER 2000

MATCHLINE SEE SHEET 26

SEE SHEET 28

SEGMENT C  
REPLACEMENT DRAINAGE  
CHANNEL, 250 FT.

SEGMENT D  
REPLACEMENT DRAINAGE  
CHANNEL, 150 FT.

EXISTING  
CHANNEL

DRAINAGE COLLECTION  
SWALE

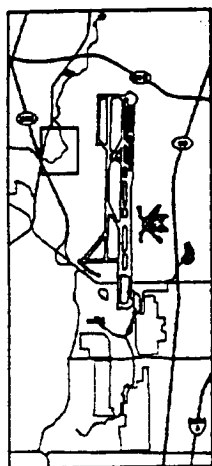
8TH AVENUE SOUTH

SOUTH 168TH STREET

TH 168TH STREET

SECURITY ROAD

PERMETER ROAD



## LEGEND



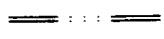
Replacement Drainage  
Channel



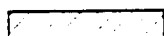
Temporary Drainage Channel



Toe of Embankment



Drainage Collection Swale



Embankment



Wetland

AR 008744

PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

DATUM: SEATAC GRID  
96-4-02325

## PLAN VIEW

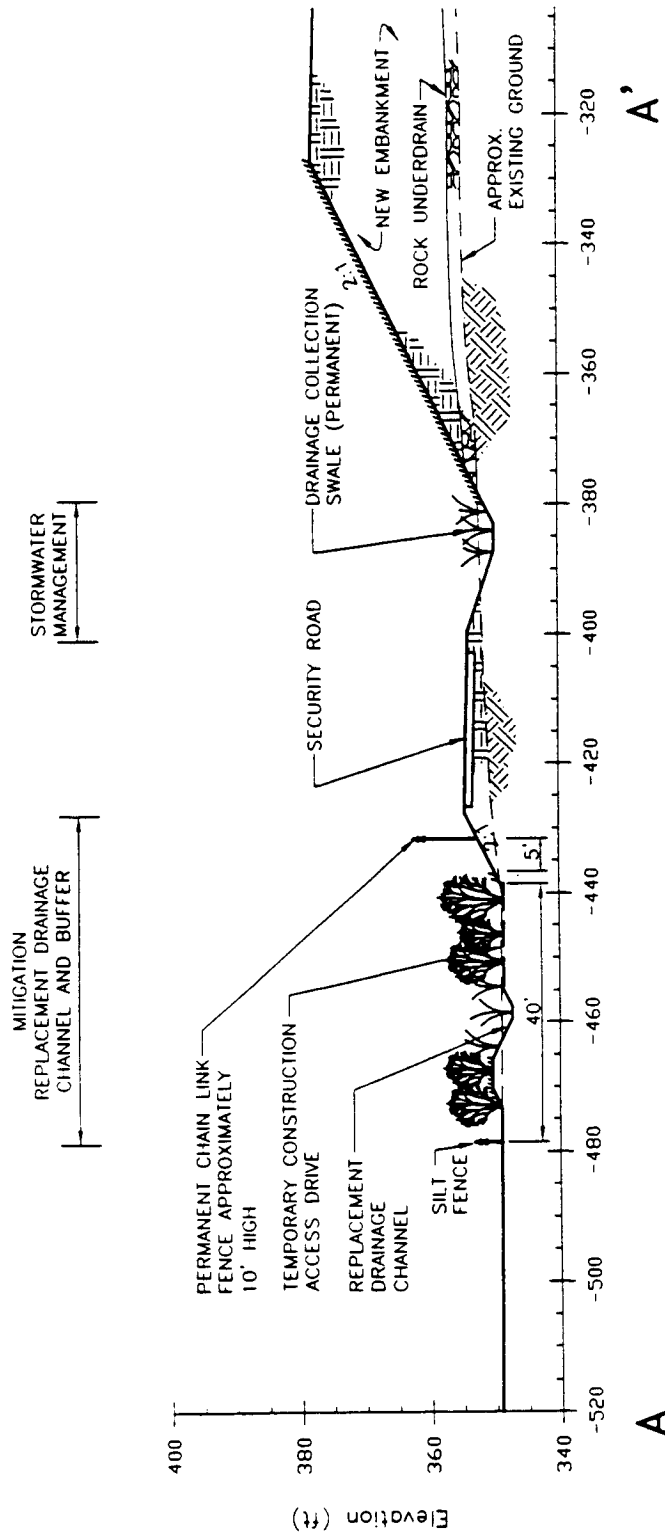


SCALE: 1" = 300'

LOCATION OF PROPOSED  
REPLACEMENT DRAINAGE CHANNEL  
AND SWALES ALONG THE WEST SIDE  
OF THE THIRD RUNWAY EMBANKMENT,  
SOUTH HALF

IN: SECTION 29, TOWNSHIP 23N, RANGE 4E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 27 OF 38 DECEMBER 2000

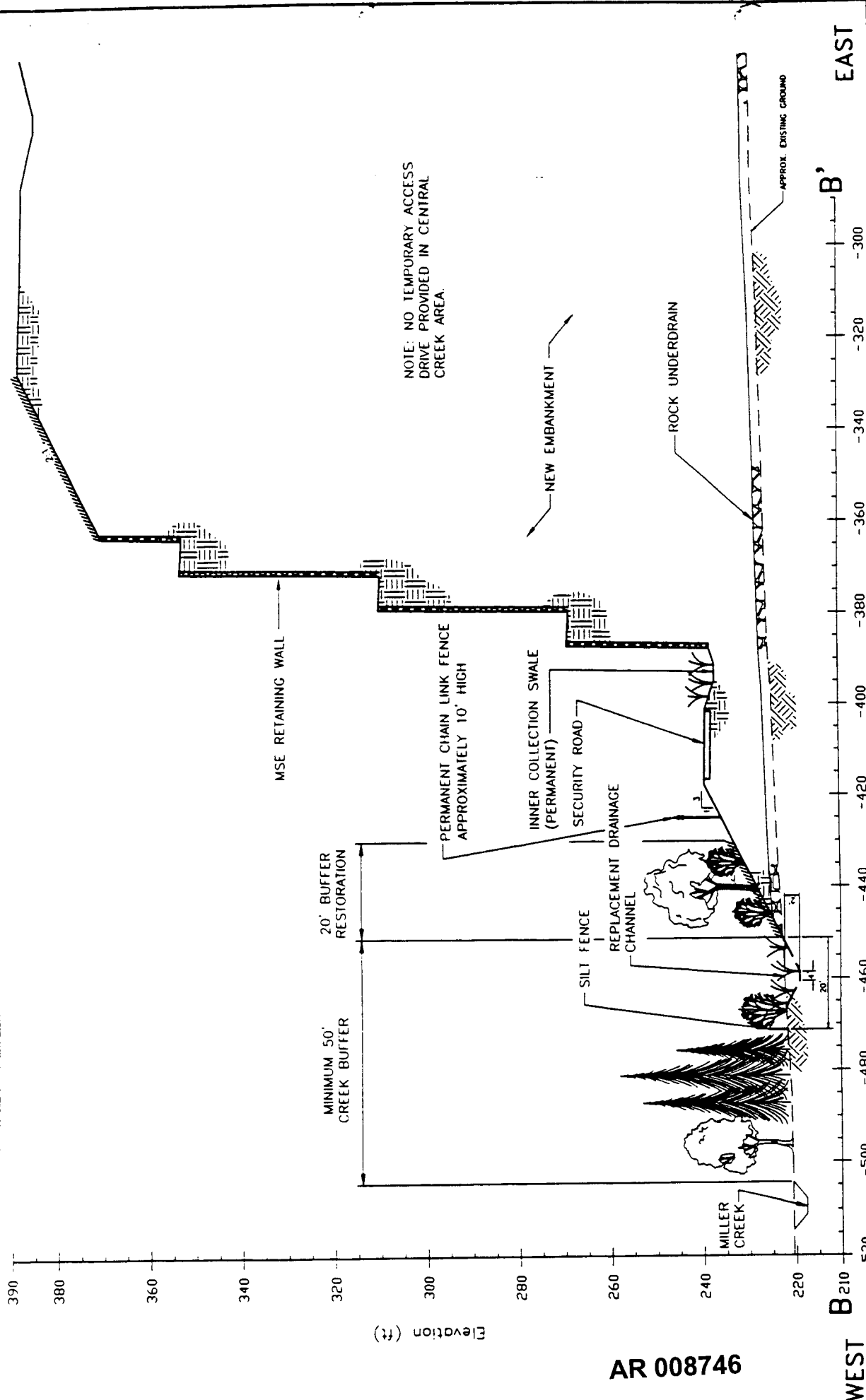




SEE SHEET 26 OF 38 FOR CROSS SECTION LOCATION

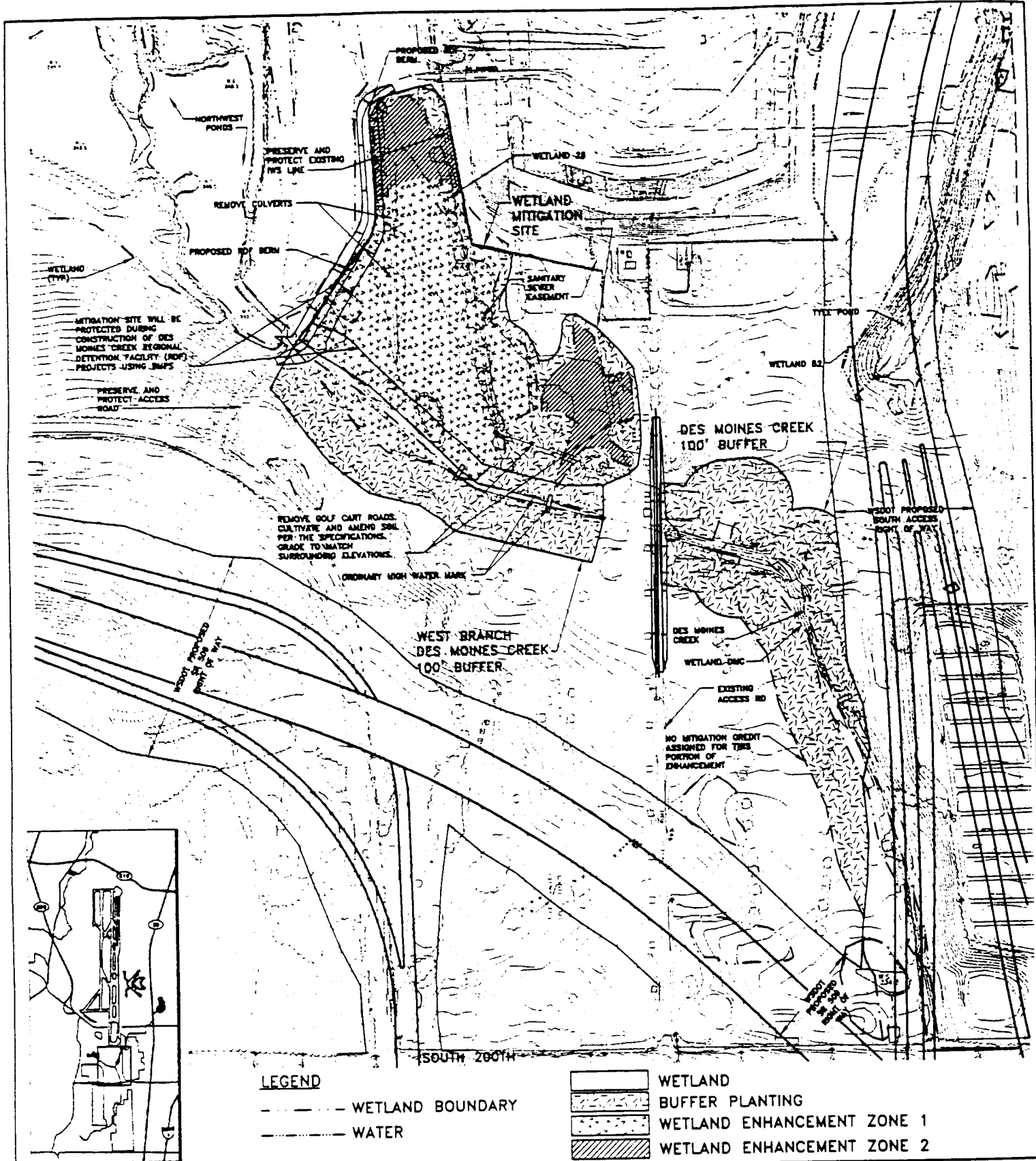
AR 008745

<p>CROSS SECTION A-A' OF THE REPLACEMENT DRAINAGE CHANNEL, DRAINAGE COLLECTION SWALE AND THIRD RUNWAY EMBANKMENT</p> <p>IN: SECTION 29, TOWNSHIP 23N, RANGE 4E COUNTY OF: KING STATE OF: WA APPLICATION BY: PORT OF SEATTLE</p> <p>SHEET 28 OF 38 DECEMBER 2000</p>	<p>CROSS SECTION</p>	<p>PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND</p> <p>DATUM: VERTICAL: KING COUNTY HORIZONTAL: SEATAC GRID</p> <p>96-4-02325</p> <p>SCALE 1" = 30'</p>
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AR 008746

<p>SEE SHEET 27 OF 38 FOR CROSS SECTION LOCATION</p>	<p>PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND</p>	<p>DATUM: VERTICAL: KING COUNTY HORIZONTAL: SEATAC GRID</p>	<p>CROSS SECTION B-B' OF THE REPLACEMENT DRAINAGE CHANNEL, DRAINAGE COLLECTION SWALE AND THIRD RUNWAY EMBANKMENT</p> <p>IN: SECTION 29, TOWNSHIP 23N, RANGE 4E COUNTY OF: KING STATE OF: WA APPLICATION BY: PORT OF SEATTLE SHEET 29 OF 38 DECEMBER 2000</p>
<p>CROSS SECTION</p>	<p>SCALE 1" = 30'</p>	<p>CROSS SECTION</p>	<p>CROSS SECTION</p>



PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

DATUM: NGVD 29/AUBURN  
96-4-02325

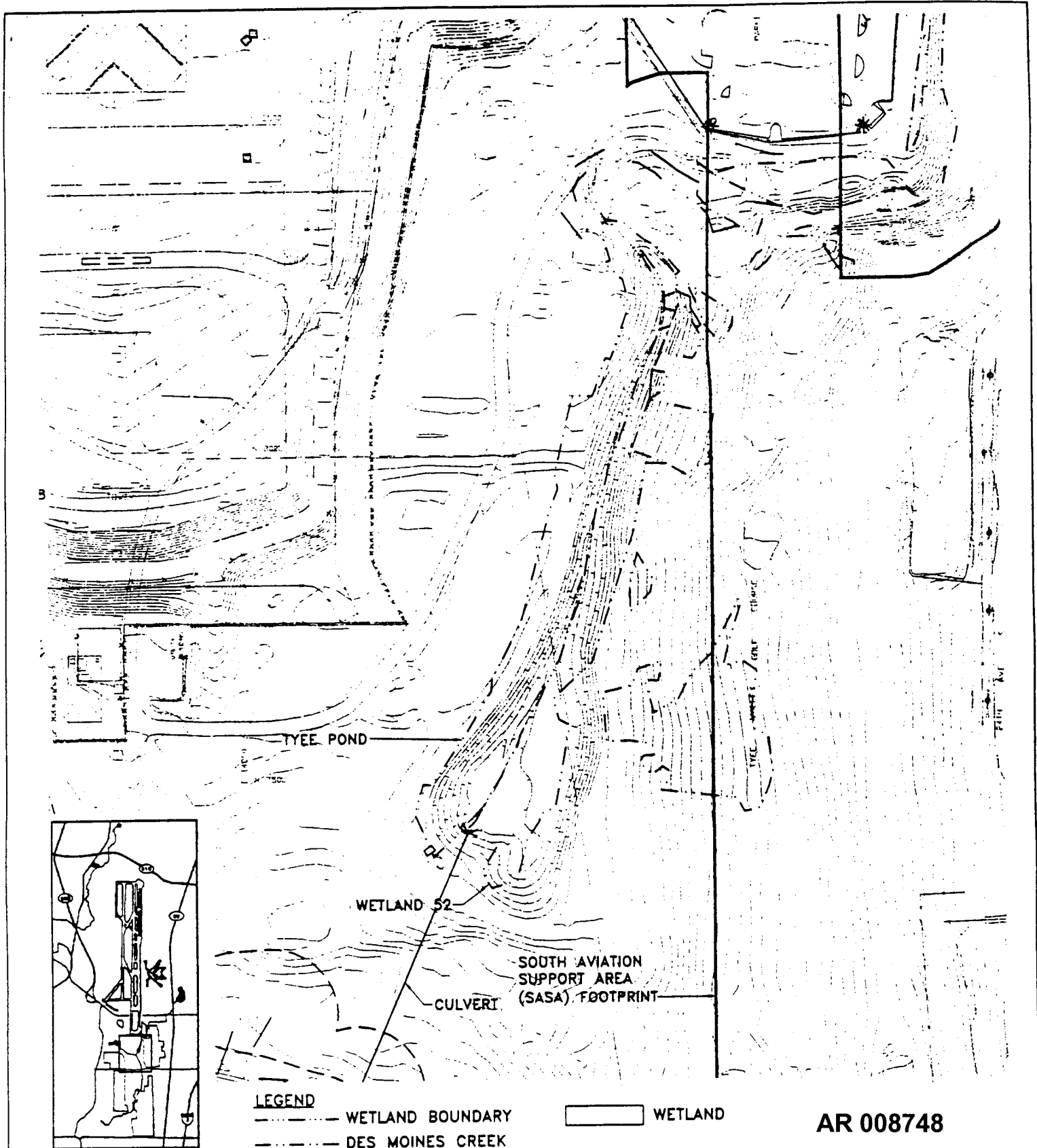
PLAN VIEW



0 300'  
SCALE: 1" = 300'

LOCATION OF WETLAND  
ENHANCEMENT ON THE TYEE VALLEY  
GOLF COURSE, DES MOINES CREEK  
BASIN  
IN: SECTION 4.5 TOWNSHIP 22N, RANGE 5E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 30 OF 38 DECEMBER 2000

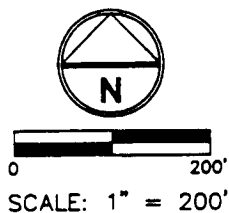
AR 008747



PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

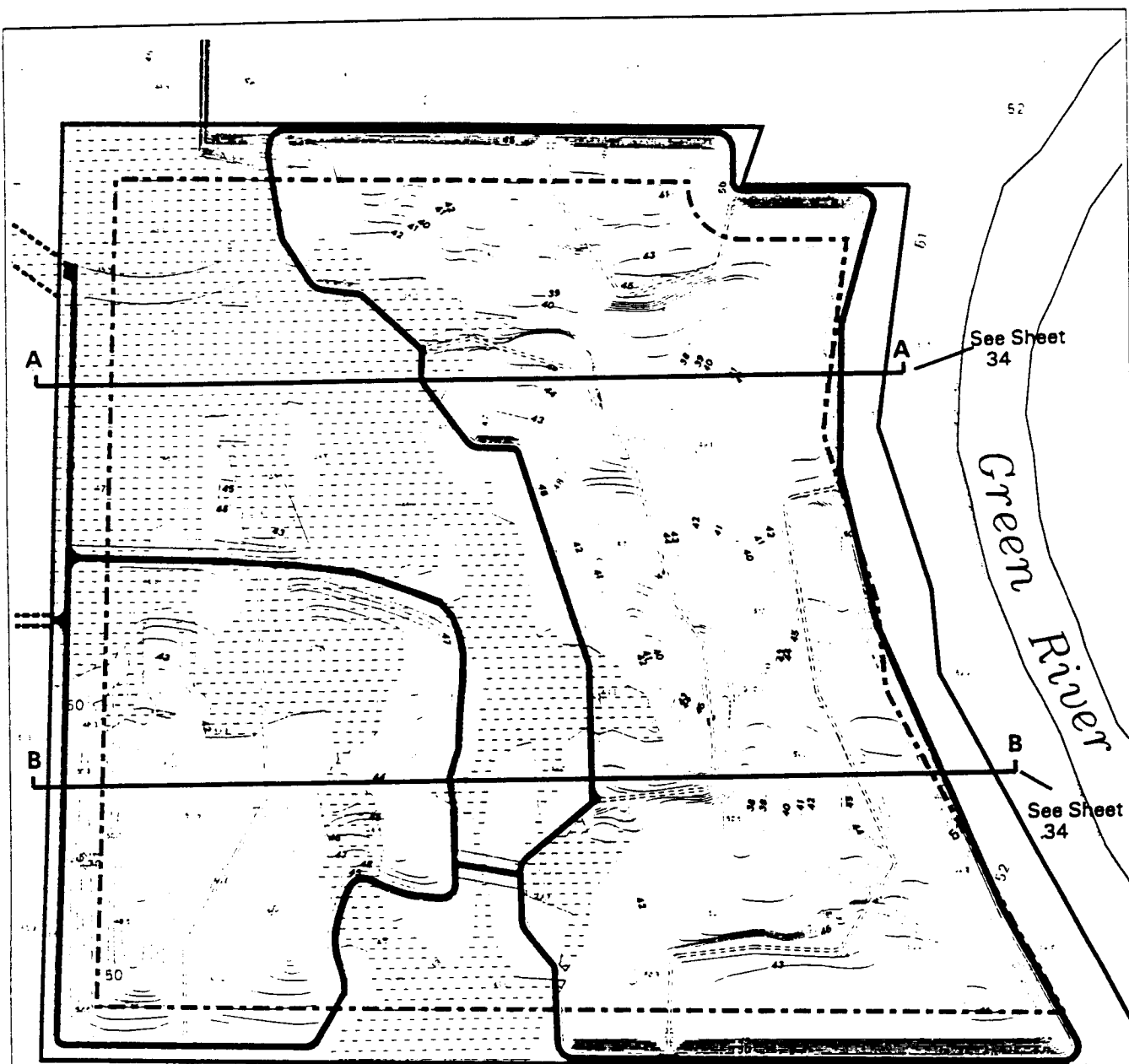
DATUM: NGVD 29/AUBURN  
96-4-02325

PLAN VIEW



SASA FACILITY FOOTPRINT NEAR  
EAST BRANCH OF DES MOINES CREEK

IN: SECTION 4,5 TOWNSHIP 22N, RANGE 5E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 31 OF 38 DECEMBER 2000



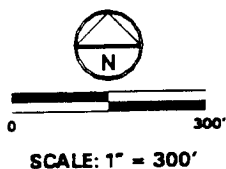
# **LEGEND:**

	Jurisdictional Wetlands		Proposed Grade		Easement
	Temporary Roads		Property Boundary		Existing Contours
			100 Foot Buffer		

**PURPOSE:** MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET ANTICIPATED  
FUTURE DEMAND

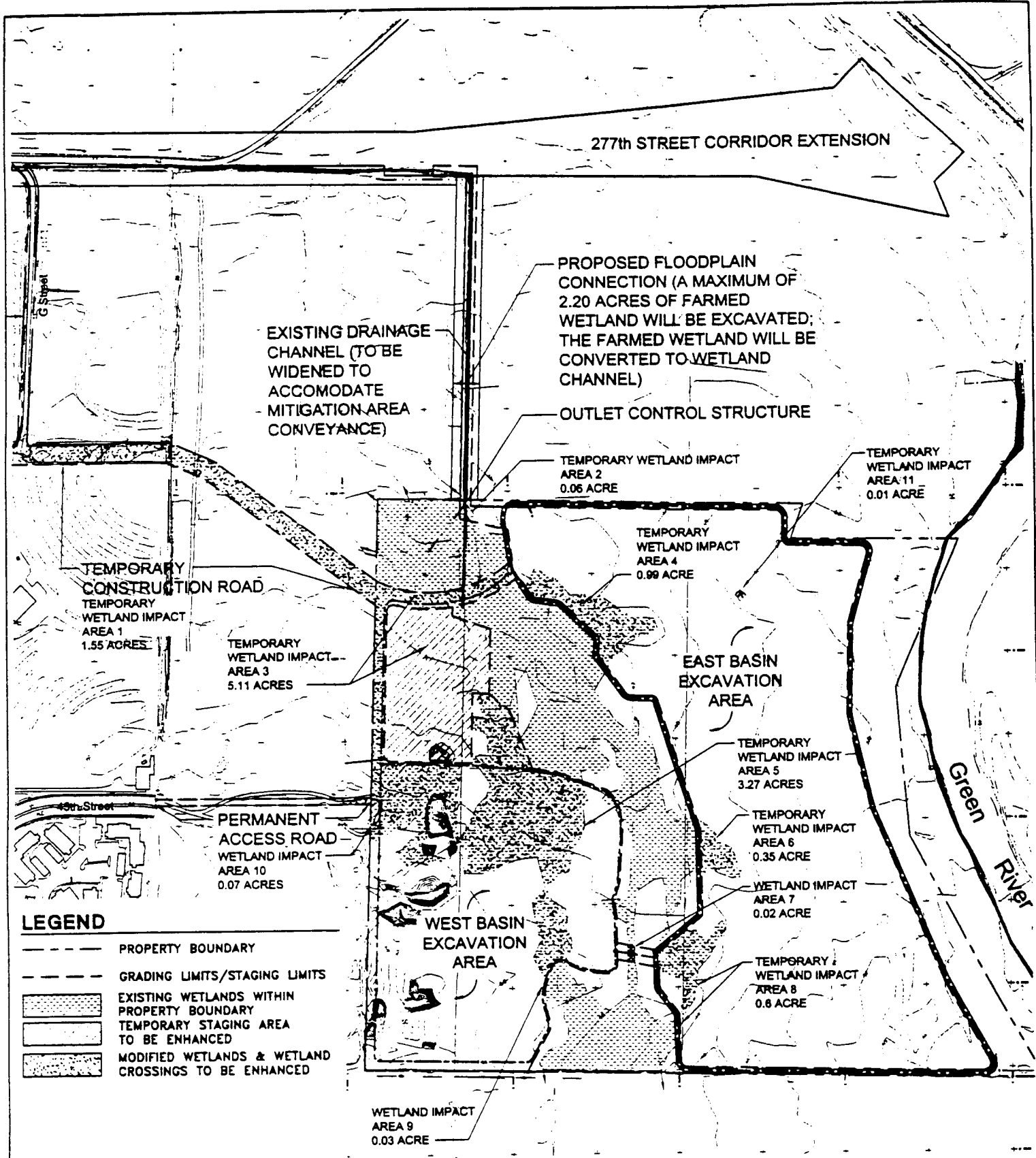
**DATUM:** NGVD 29/AUBURN  
96-4-02325

## **PLAN VIEW**



## **OFF-SITE WETLAND MITIGATION AND GRADING PLAN**

**IN:** SECTION 31, TOWNSHIP 22N, RANGE 5E  
**COUNTY OF:** KING **STATE OF:** WA  
**APPLICATION BY:** PORT OF SEATTLE  
**SHEET 32 OF 38** **DECEMBER 2000**



PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

DATUM: NGVD 29/AUBURN  
96-4-02325

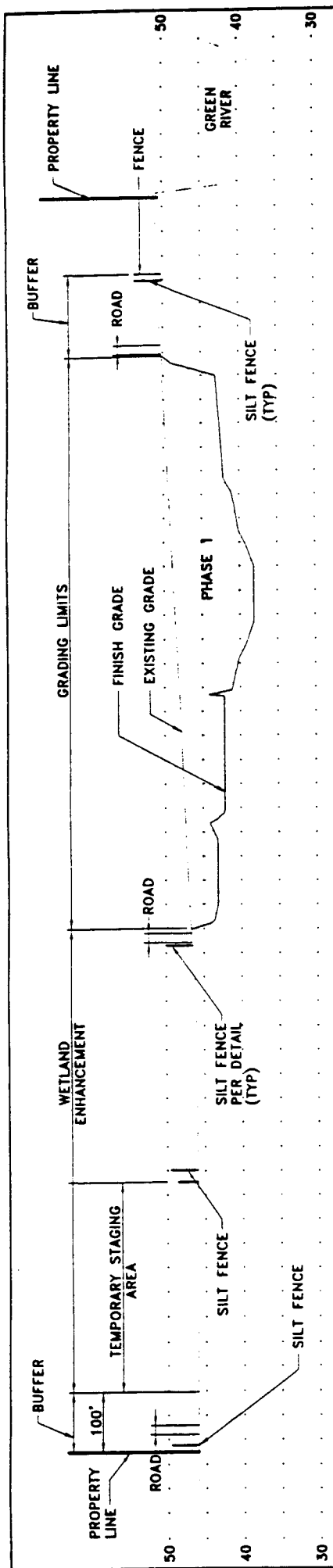
PLAN VIEW



SCALE: 1"=400'

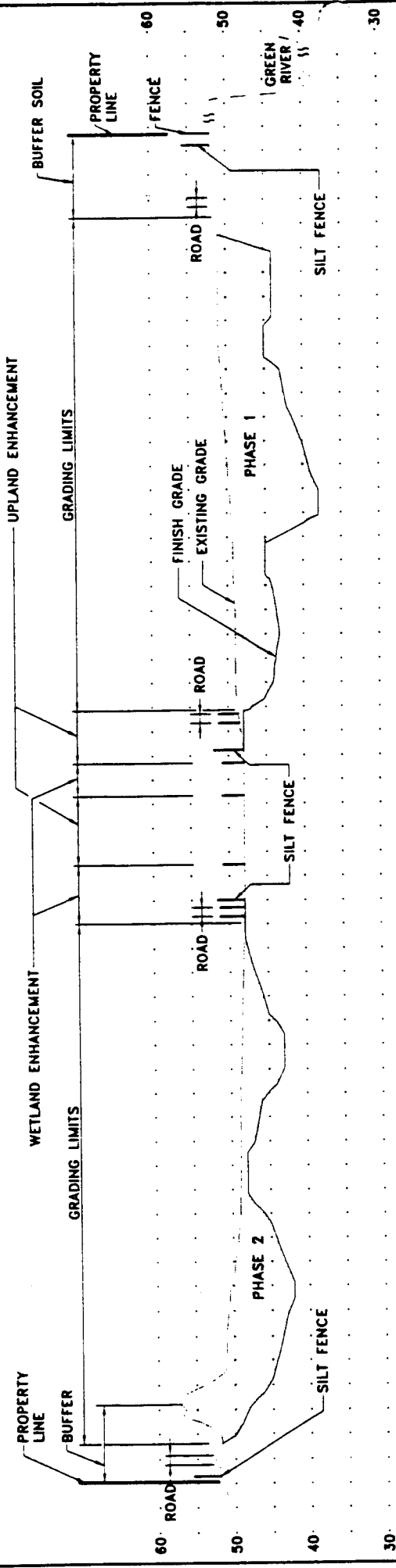
LOCATION OF  
TEMPORARY/PERMANENT WETLAND  
IMPACTS, AUBURN MITIGATION SITE  
IN: SECTION 31, TOWNSHIP 22N, RANGE 5E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 33 OF 38 DECEMBER 2000

AR 008750



**SECTION A**

HORIZ: 1"=200'  
VERT: 1"=20'  
SEE SHEET 32

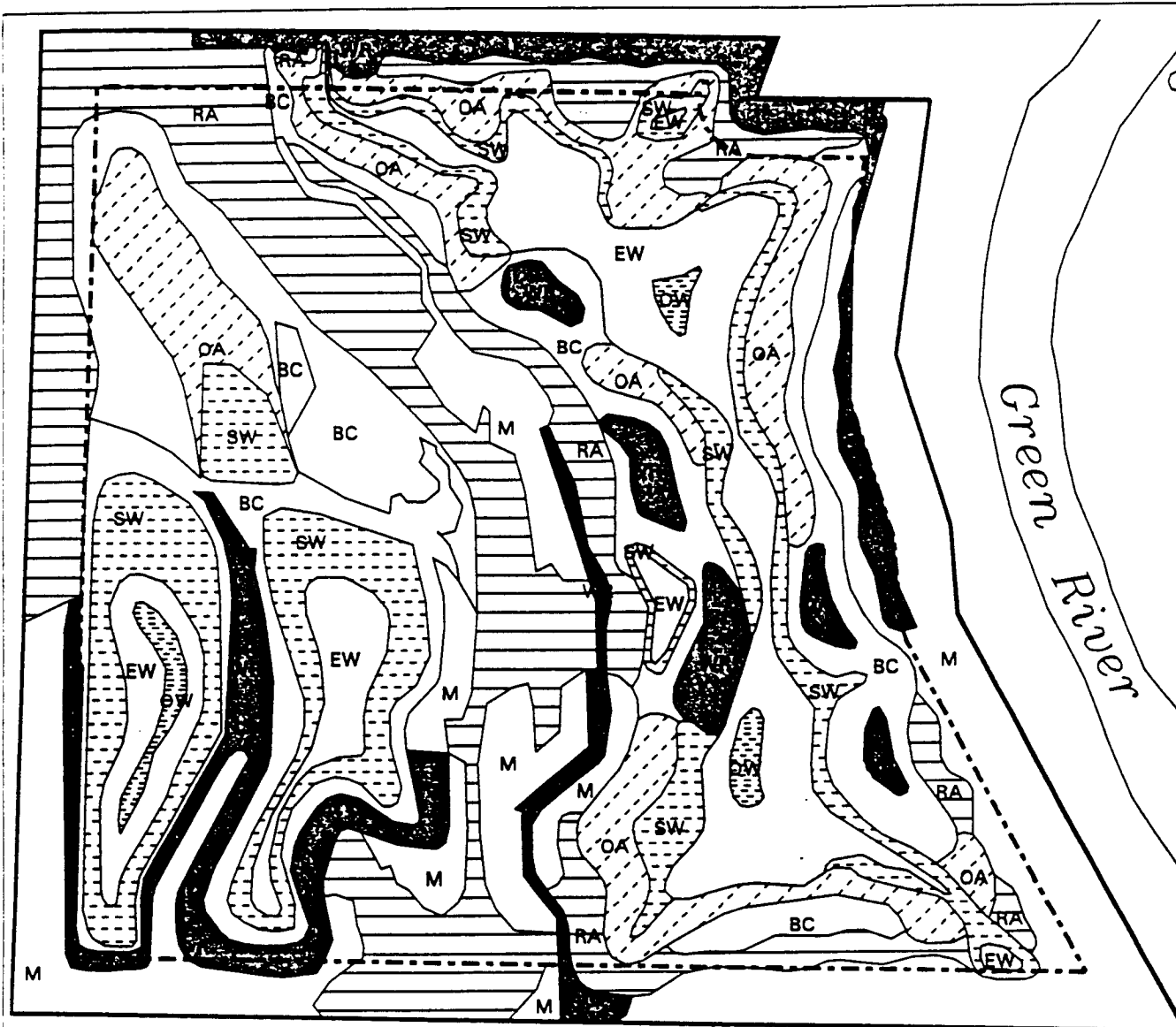


**SECTION B**

HORIZ: 1"=200'  
VERT: 1"=20'  
SEE SHEET 32

AR 008751

<p>PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND</p> <p>DATUM: NGVD 29/AUBURN</p> <p>96-4-02325</p>	<p>CROSS SECTION</p> <p>SCALE AS SHOWN</p>	<p>PROPOSED GRADING FOR OFF-SITE WETLAND MITIGATION, CROSS SECTION</p> <p>IN: SECTION 20, TOWNSHIP 23N, RANGE 4E COUNTY OF: KING STATE OF: WA APPLICATION BY: PORT OF SEATTLE SHEET 34 OF 38 DECEMBER 2000</p>
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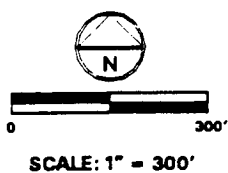
# **LEGEND:**

	Black Cottonwood (BC)		Western Redcedar (WR)		Property Boundary
	Red Alder (RA)		Shrub Wetland (SW)		100 Foot Buffer
	Oregon Ash (OA)		Emergent Wetland (EW)		
	Mixed Forest (M)		Open Water Non-vegetated (OW)		

**PURPOSE:** MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET ANTICIPATED FUTURE DEMAND

**DATUM:** NGVD 29/AUBURN  
96-4-02325

## **PLAN VIEW**



## **PROPOSED PLANT ASSOCIATIONS FOR THE WETLAND MITIGATION SITE**

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 35 OF 38 DECEMBER 2000

**AR 008752**



BC

**Black Cottonwood/Willow Plant Association**

Trees	<i>Populus trichocarpa</i>	Black cottonwood
	<i>Fraxinus latifolia</i>	Oregon ash
	<i>Malus fusca</i>	Pacific crabapple
	<i>Alnus rubra</i>	Red alder
	<i>Salix lasiandra</i>	Pacific willow
	<i>Picea sitchensis</i>	Sitka spruce
Shrubs	<i>Salix sitchensis</i>	Sitka willow
	<i>Salix hookeriana</i>	Hooker's willow
	<i>Lonicera involucrata</i>	Twinberry
	<i>Rosa nutkana</i>	Nootka rose
	<i>Physocarpus capitatus</i>	Pacific ninebark

RA

**Red Alder/Salmonberry Plant Association**

Trees	<i>Alnus rubra</i>	Red alder
	<i>Fraxinus latifolia</i>	Oregon ash
	<i>Malus fusca</i>	Pacific crabapple
	<i>Picea sitchensis</i>	Sitka spruce
	<i>Populus trichocarpa</i>	Black cottonwood
	<i>Salix lasiandra</i>	Pacific willow
	<i>Thuja plicata</i>	Western redcedar
Shrubs	<i>Rubus spectabilis</i>	Salmonberry
	<i>Cornus stolonifera</i>	Red-osier dogwood
	<i>Lonicera involucrata</i>	Twinberry
	<i>Rosa nutkana</i>	Nootka rose
	<i>Salix scouleriana</i>	Scouler's willow

OA

**Oregon Ash Plant Association**

Trees	<i>Fraxinus latifolia</i>	Oregon ash
	<i>Malus fusca</i>	Pacific crabapple
	<i>Populus trichocarpa</i>	Black cottonwood
	<i>Salix lasiandra</i>	Pacific willow
	<i>Picea sitchensis</i>	Sitka spruce
Shrubs	<i>Lonicera involucrata</i>	Twinberry
	<i>Salix sitchensis</i>	Sitka willow
	<i>Rubus spectabilis</i>	Salmonberry
	<i>Cornus stolonifera</i>	Red-osier dogwood

SW

**Willow/Red-osier Dogwood Shrub Association**

<i>Salix hookeriana</i>	Hooker's willow
<i>Salix lasiandra</i>	Pacific willow
<i>Salix sitchensis</i>	Sitka willow
<i>Cornus stolonifera</i>	Red-osier dogwood
<i>Lonicera involucrata</i>	Twinberry

M

**Mixed Forest Plant Association**

Trees	<i>Abies grandis</i>	Grand fir
	<i>Prunus emarginata</i>	Bitter cherry
	<i>Populus trichocarpa</i>	Black cottonwood
	<i>Alnus rubra</i>	Red alder
	<i>Pseudotsuga menziesii</i>	Douglas fir
	<i>Acer macrophyllum</i>	Bigleaf maple
	<i>Rhamnus purshiana</i>	Cascara
	<i>Thuja plicata</i>	Western redcedar
	<i>Crataegus douglasii</i>	Black hawthorn
Shrubs	<i>Acer circinatum</i>	Vine maple
	<i>Amelanchier alnifolia</i>	Serviceberry
	<i>Rosa gymnocarpa</i>	Bald-hip rose
	<i>Rubus parviflorus</i>	Thimbleberry
	<i>Corylus cornuta</i>	California filbert
	<i>Oemleria cerasiformis</i>	Indian plum
	<i>Symphoricarpos albus</i>	Snowberry
	<i>Berberis aquifolium</i>	Tall Oregon grape
	<i>Rosa nutkana</i>	Nootka rose
	<i>Sambucus racemosa</i>	Red elderberry

**Western Redcedar Plant Association**

Trees	<i>Thuja plicata</i>	Western redcedar
	<i>Populus trichocarpa</i>	Black cottonwood
	<i>Alnus rubra</i>	Red alder
	<i>Abies grandis</i>	Grand fir
	<i>Pseudotsuga menziesii</i>	Douglas fir
	<i>Acer macrophyllum</i>	Bigleaf maple
	<i>Rhamnus purshiana</i>	Cascara
Shrubs	<i>Acer circinatum</i>	Vine maple
	<i>Physocarpus capitatus</i>	Pacific ninebark
	<i>Salix scouleriana</i>	Scouler's willow
	<i>Oemleria cerasiformis</i>	Indian plum

EW

**Beaked Sedge/Water Parsley Emergent Association**

<i>Carex rostrata</i>	Beaked sedge
<i>Oenanthe sarmentosa</i>	Water-parsley
<i>Eleocharis palustris</i>	Spike-rush
<i>Polygonum amphibium</i>	Water smartweed
<i>Scirpus acutis</i>	Hardstem bulrush
<i>Scirpus microcarpus</i>	Small-fruited bulrush
<i>Sparganium emersum</i>	Narrow-leaf burreed

AR 008753

Port of Seattle/556-2912-001/01(03) 12/00

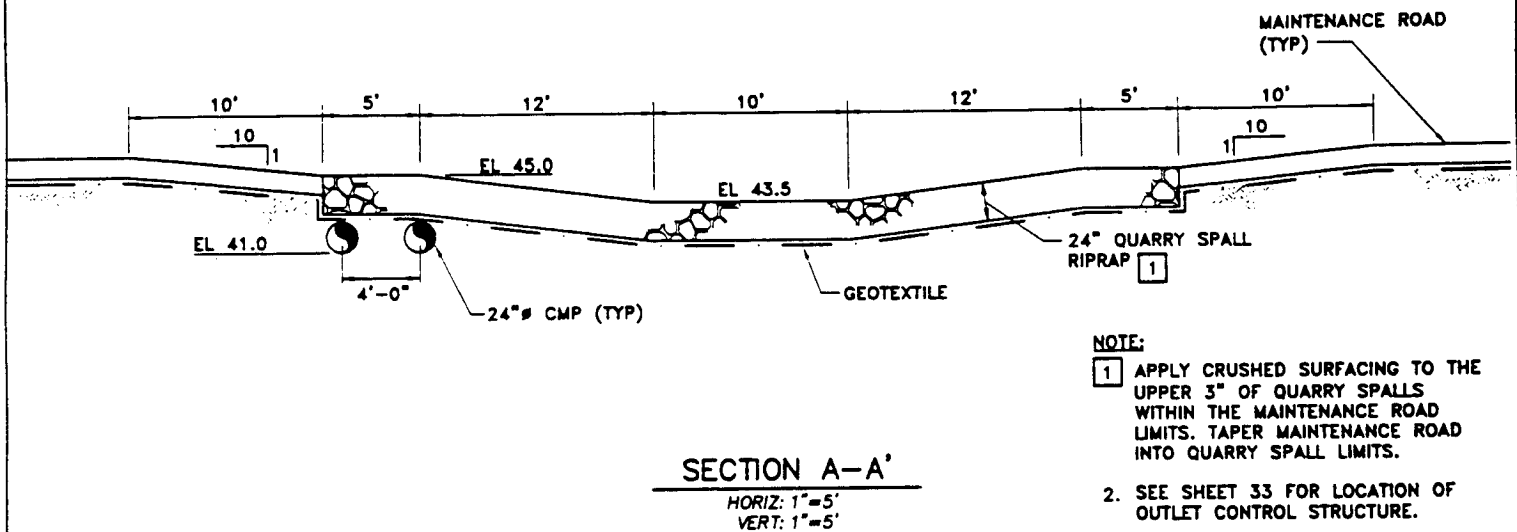
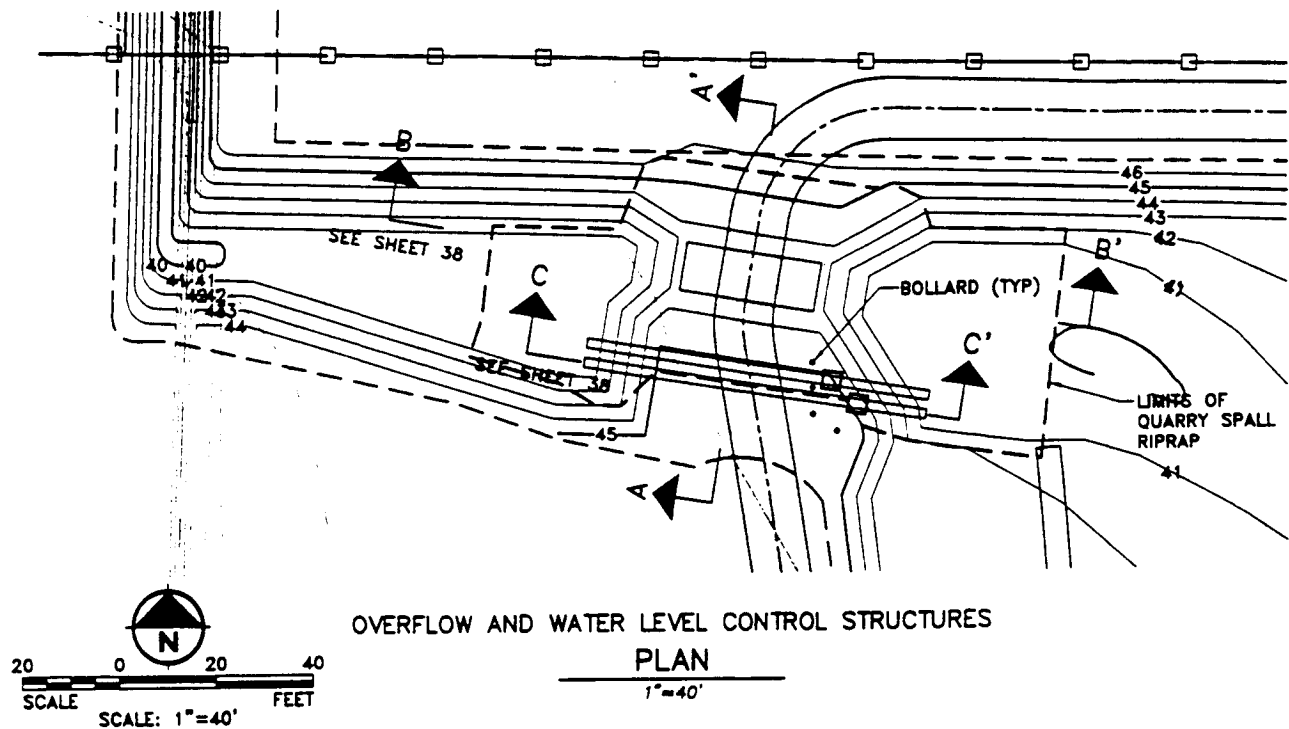
PURPOSE: MEET PUBLIC NEED FOR  
EFFICIENT REGIONAL AIR  
TRANSPORTATION FACILITY  
TO MEET EXISTING AND  
FUTURE DEMAND

96-4-02325

TABLE

PLANT SPECIES FOR OFF-SITE  
WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E  
COUNTY OF: KING STATE: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 36 of 38 DECEMBER 2000



AR 008754

PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND

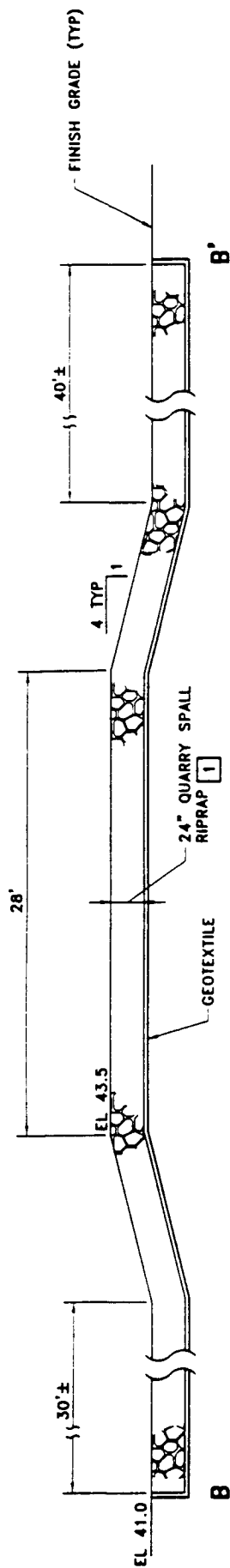
DATUM: NGVD 29/AUBURN  
96-4-02325

PLAN AND SECTION VIEWS

SCALE AS SHOWN

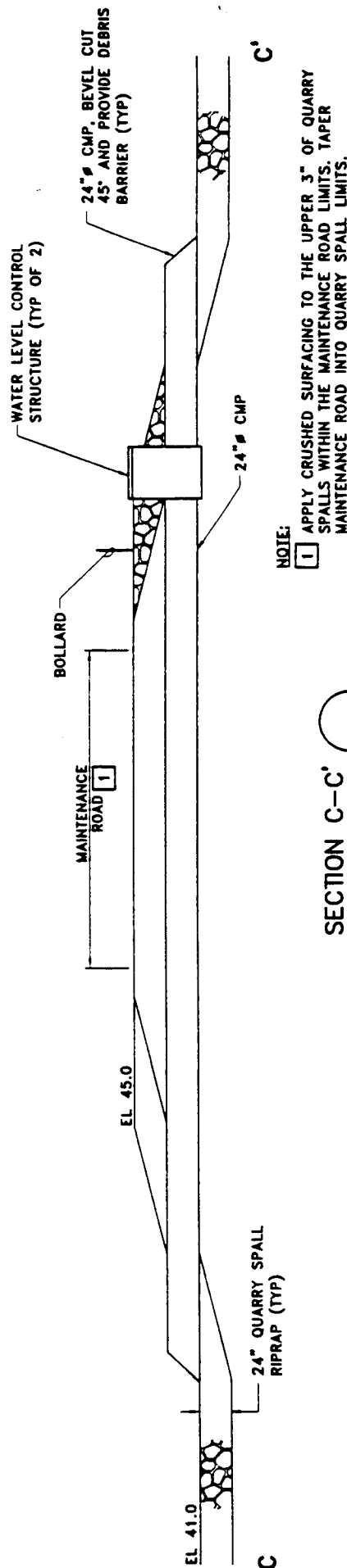
OUTLET CONTROL STRUCTURE AT OFF-SITE WETLAND MITIGATION

IN: SECTION 31, TOWNSHIP 22N, RANGE 5E  
COUNTY OF: KING STATE OF: WA  
APPLICATION BY: PORT OF SEATTLE  
SHEET 37 OF 38 DECEMBER 2000



NOTE:  
 [1] APPLY CRUSHED SURFACING TO THE UPPER 3" OF QUARRY SPALLS WITHIN THE MAINTENANCE ROAD LIMITS. TAPER MAINTENANCE ROAD INTO QUARRY SPALL LIMITS.

SECTION B-B'  
 1"=5'



NOTE:  
 [1] APPLY CRUSHED SURFACING TO THE UPPER 3" OF QUARRY SPALLS WITHIN THE MAINTENANCE ROAD LIMITS. TAPER MAINTENANCE ROAD INTO QUARRY SPALL LIMITS.

SECTION C-C'  
 1"=5'

AR 008755

<p>PURPOSE: MEET PUBLIC NEED FOR EFFICIENT REGIONAL AIR TRANSPORTATION FACILITY TO MEET EXISTING AND FUTURE DEMAND</p> <p>DATUM: NGVD 29/AUBURN</p> <p>96-4-02325</p>	<p>CROSS SECTION</p> <p>SCALE AS SHOWN</p>	<p>OUTLET CONTROL STRUCTURE AT OFF-SITE WETLAND MITIGATION</p> <p>IN: SECTION 20, TOWNSHIP 23N, RANGE 4E          COUNTY OF: KING STATE OF: WA          APPLICATION BY: PORT OF SEATTLE          SHEET 38 OF 38 DECEMBER 2000</p>
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STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

Notice of Application for  
Certification of Consistency with the  
Washington Coastal Zone Management Program

Date: 27 December 2000

Notice is hereby given that a request has been filed with the Department of Ecology, pursuant to the requirements of Section 307(c) of the federal Coastal Zone Management Act of 1972 (16 U.S.C. 1451), to certify that the project described in the Corps of Engineers Public Notice No. 1996-4-02325 will comply with the Washington State Coastal Zone Management Program and that the project will be conducted in a manner consistent with that Program.

Any person desiring to present views on the project pertaining the project's compliance or consistency with the Washington State Coastal Zone Management Program may do so by providing written comments within 30 days of the above publication date to:

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

AR 008756

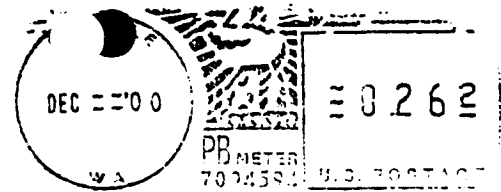


DEPARTMENT OF THE ARMY  
SEATTLE DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 3755  
SEATTLE, WA 98124-3755

OFFICIAL BUSINESS

RETURN SERVICE REQUESTED

PRESORTED  
STANDARD



RECEIVED  
JAN 02 2001

ACTION ID#199602325  
PETER EGLICK  
PO BOX 21846  
SEATTLE, WA 98111-3846

HELSELL FETTERMAN LLP

AR 008757



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

In the Matter of:

SEA-TAC INTERNATIONAL AIRPORT

)  
)  
) AGREED ORDER  
)  
) # 97TC-N122  
)

TO: Port of Seattle  
Sea-Tac International Airport  
P.O. Box 68727  
Seattle, WA 98168-0727

I.

Jurisdiction

This Agreed Order ("Order") is issued pursuant to the authority of RCW 70.105D.050(1).

II.

Findings of Fact

Ecology makes the following Findings of Fact, without admission of such facts by the Port of Seattle.

1. Seattle-Tacoma International Airport (STIA) is a major commercial air facility serving the Pacific Northwest. The Port of Seattle (Port) has owned and operated STIA since it opened in 1944. Airport operations, including passenger terminal operations, baggage and cargo handling, ground transportation, aircraft maintenance, and fueling storage and delivery have been conducted at STIA since its opening within an area of about 1/2 square mile in the southeast quadrant of the airport. This 1/2 square-mile area will subsequently be referred to in this Agreed Order as the "Aircraft Operations and Maintenance Area (AOMA)."

2. Hazardous substances have been released at times within the AOMA during some of these airport operations. By bulk volume, the most abundant contaminant is jet fuel. Other known contaminants include, primarily, gasoline, but also some industrial solvents, mineral spirits, lubricating oil, and aircraft deicing fluids. At this time, thirteen separate areas (sites) within the AOMA are known to have contaminants present in perched ground water and/or significant soil contamination (Appendix 1). Ground water in the Qva aquifer (see Section II.3 below) is also impacted at eight of the thirteen sites. Eight sites are impacted with jet fuel, two sites with gasoline, and three sites are impacted by more than one contaminant. There are also some small areas within the AOMA where the contamination is apparently minor and limited to near-surface soils.

Environmental investigations and/or cleanup actions have been or are currently being conducted independently by STIA tenants and/or the Port in all known contaminated areas. Cleanup actions have been completed at four former sites within the AOMA, and also at some of the areas with minor contamination. Unknown areas of contamination associated with past operations could exist within the AOMA. It is not practicable at this time to conduct a remedial investigation of the entire AOMA in order to identify unknown contaminated areas because: (1) the extensive drilling required would be very difficult given taxiing aircraft, thick concrete in most areas, and the large number of underground utilities, (2) such extensive work over time would represent a significant safety risk to aircraft operations and personnel, (3) extensive drilling could potentially spread contamination, and (4) costs of investigating the 1/2 sq. mile area of the AOMA are not warranted.

3. Zones of perched ground water have been identified at some locations within the AOMA. These zones are small and discontinuous laterally, occur at various depths, and the perched ground water flows in various directions. STIA area perched



groundwater is not a public or private drinking water resource based on current information.

The uppermost aquifer of regional extent beneath the airport is an unconfined aquifer known in the technical literature as the Qva aquifer. The Qva aquifer is not used as a public drinking water supply resource in the general area of STIA. Available information from wells located in the AOMA indicates the Qva aquifer surface is at about 90 ft. below ground surface (bgs) at the north end of the AOMA and about 60 ft. bgs at the south end of the AOMA. Over the same areal extent, the ground surface elevation changes by about 25 ft. At individual sites, the local flow directions of the Qva aquifer are predominantly to the west, that is, from the AOMA towards the interior of the airport (taxiway and runway areas), with northwestward and southwestward flow components at some sites.

4. A project to (1) evaluate ground water flow in the Qva aquifer throughout the AOMA, (2) model contaminant fate and transport, and (3) confirm model results by obtaining and analyzing ground water samples is appropriate because:
  - a) The project results would determine whether or not the Qva aquifer downgradient of the AOMA has been significantly impacted by airport operations within the AOMA during the last 50 years.
  - b) The project results would confirm the predominant flow direction of the Qva aquifer relative to the AOMA and downgradient from the AOMA. If a westward flow direction is confirmed, this would demonstrate that contamination generated within the AOMA would migrate to the interior of the airport property via ground water flow in the Qva aquifer.
  - c) The project results would provide a more comprehensive understanding than is now available of the fate and transport of contamination originating within the AOMA. Project results would identify the potential risk posed by contamination

originating within the AOMA to public drinking water supply wells (specifically the City of Seattle Highline well field north of STIA, the Highline Water District Angle Lake and Des Moines production wells south of STIA, and King County Water District 54 production wells south of STIA); any publicly recorded and operational local private drinking water supply wells; Bow Lake; Des Moines Creek; and Miller Creek. These surface water bodies and drinking water supply wells will hereafter be collectively referred to as "potential local receptors" in this Agreed Order.

- d) The information generated by the project could provide a basis for a consistent approach to cleanup actions within the AOMA.
5. The primary cause of soil and ground water contamination at STIA has been leakage from underground storage tanks (USTs) and associated underground piping. UST systems exist at STIA that are critical to airport/aircraft operations. The various UST systems have different regulatory requirements depending on the size and function of the system. Most small UST systems at STIA are fully regulated under Washington UST regulations (WAC 173-360). The airport hydrant fuel distribution systems (hydrant systems) are specifically deferred from leak detection requirements [WAC 173-360-110(3d)] because of the inherent technical difficulties in accurately testing large, high-throughput systems. The UST systems at STIA that store heating fuel are exempt from all UST regulatory requirements except release reporting [WAC 173-360-110 (2h)].

The UST regulations require that fully regulated UST systems must have been either upgraded to meet specific standards or closed by the end of 1998. The fully regulated UST systems at STIA are reported to be either upgraded to 1998 standards or closed. In recent years, owners/operators of the deferred hydrant systems made credible voluntary efforts to address leak detection on those systems. As of autumn 1998,

there is one operational hydrant system remaining at STIA. The four other hydrant systems have now ceased operations and are, or will be, in the process of formal closure as per the UST regulations.

As part of a project concerning ground water quality at STIA, it is appropriate to evaluate the compliance and adequacy of in-place pollution prevention activities, and also consider the feasibility of additional pollution prevention activities regarding all UST systems at STIA.

### III.

#### Ecology Determinations

1. The Port of Seattle is an "owner or operator" as defined at RCW 70.105D.020(12) of a "facility" as defined in RCW 70.105D.020(4).
2. The facility is known as Sea-Tac International Airport and is located within the city of SeaTac, King County, Washington.
3. The substances found at the facility as described above are "hazardous substances" as defined at RCW 70.105D.020(7).
4. Based on the presence of these hazardous substances at the facility and all factors known to the Department, there is a release or threatened release of hazardous substances from the facility, as defined at RCW 70.105D.020(20).
5. By a letter of December 23, 1996, the Port of Seattle voluntarily waived its rights to notice and comment and accepted Ecology's determination that the Port of Seattle is a "potentially liable person" under RCW 70.105D.040.
6. Pursuant to RCW 70.105D.030(1) and 70.105D.050, the Department may require potentially liable persons to investigate or conduct other remedial actions with respect to the release or threatened release of hazardous substances, whenever it believes such action to be in the public interest.

7. Based on the foregoing facts, Ecology believes the ground water evaluation required by this Order is in the public interest.

#### IV.

##### Work to be Performed

Based on the foregoing Facts and Determinations, it is hereby ordered that the Port of Seattle take the following actions and that these actions be conducted in accordance with Chapter 173-340 WAC unless otherwise specifically provided for herein. Two distinct types of action will be performed under this Agreed Order: STIA Groundwater Study Tasks (Tasks IV.1 - IV.5) and STIA Fuel Systems Pollution Prevention Tasks (Tasks IV.6 - IV.7).

1. The Port will research existing technical literature, environmental and geological reports, land-use data, airport historical information, and other appropriate documents. The purposes of the research are:
  - a) To provide a background hydrogeological description of the aquifers at the airport and surrounding area, and their relation to the AOMA and potential local receptors.
  - b) To identify (1) known and potential (based on historical operations) areas of soil and ground water contamination within the AOMA and its near-vicinity (defined, for STIA groundwater study tasks, as within approximately 1/4 mile of the AOMA), and (2) potential preferred pathways of contaminant transport.
  - c) To compile a database of wells screened across the surface of the Qva aquifer throughout the AOMA and its near vicinity. The database will include, to the extent information is available, well locations, construction details, ground water elevation data, ground water quality data, and available hydrogeological data and

existing calculations (flow rate and direction, gradient, slug and pump test results, computed hydraulic conductivity, etc.).

- d) To identify any publicly recorded, operational, private drinking water supply wells within one mile of the AOMA that could potentially be impacted by contamination within the AOMA.
2. Ground water elevation data for the Qva aquifer will be acquired from a set of wells representative of the entire AOMA and its near vicinity. The representative set of wells will consist of approximately 10 - 15 wells selected from the well database compiled for Task IV.1(c). The selected wells will be located in the area of the AOMA and its near vicinity. Wells outside the AOMA will be limited to existing wells that are reasonably accessible and in useable condition. The final representative set of wells will be agreed upon by Ecology and the Port. Four quarterly rounds of ground water elevation data will be collected from the set of representative wells. Ground water elevation contours will be determined from each of the quarterly data sets. The data will be reported to Ecology after each quarterly round. If Ecology and the Port agree that additional hydrogeological data are necessary to complete the modeling described in Task IV.3, the Port will conduct the agreed hydrogeological testing on wells selected by Ecology and the Port from the representative set.
3. A ground water flow and contaminant fate and transport model will be developed utilizing appropriate data obtained in Tasks IV.1 and IV.2. The modeling will evaluate the possibility that known and potential (based on historical operations) contamination within the AOMA could impact the potential local receptors. The modeling will utilize standard software and methodology to be selected by agreement of Ecology and the Port.
4. Following the completion of Tasks IV.1, IV.2, and IV.3, Ecology and the Port will evaluate task-generated data and modeling results. Ecology and the Port will agree to

a scope of work for additional investigation activities agreed necessary, based on the results of Tasks IV.1, IV.2, and IV.3. Additional work will be stipulated in an Addendum to this Agreed Order (STIA Ground Water Study, Phase II). Additional activities could include the installation of up to 10 - 15 new wells to be used to confirm modeling results, to conduct additional characterization of ground water and/or to perform long-term monitoring of ground water as appropriate. Model results will be used by Ecology and the Port to jointly determine the need for, and the location of, new ground water monitoring wells to be installed in the Qva aquifer, or other locations, as agreed appropriate.

5. The Port will prepare a report compiling and evaluating data generated from Tasks IV.1, IV.2, IV.3, and IV.4 (STIA Ground Water Study Phase I Report). An approximate schedule of Tasks IV.1 through IV.5 activities (STIA Ground Water Study Tasks) is provided as Appendix 2.
6. Ecology and the Port will work together to assess the fuel storage and distribution systems at STIA and to identify and address appropriate fuel systems pollution prevention activities:
  - a) Ecology and the Port will consult with the owners/operators of the following fuel facilities: pipelines, fuel racks, and UST systems at STIA that are either deferred or exempt from certain provisions of the UST regulations (i.e., heating oil USTs and hydrant systems). Ecology and the Port will develop an understanding of the technical operations of each of these fuel facilities, review in-place leak detection and prevention methods, and identify technically and economically reasonable leak detection and prevention methods which could possibly be employed in addition to, or in lieu of, the methods in place.

Leak detection and prevention methods to be considered for these facilities could include, but would not be limited to: tank tightness testing, pipeline tightness

testing, internal tank inspection, corrosion protection, fuel inventory control procedures, installation of automatic tank gauging equipment, continuous pressure monitoring, best management practices, etc. Ecology and the Port will also work with owners/operators to identify reasonable time periods in which the identified leak detection and prevention methods could be accomplished.

For the purpose of determining that each deferred and exempt fuel facility is operated to reasonably detect and prevent releases to the soil and ground water, Ecology and the Port will request each owner/operator to implement the identified leak detection and prevention methods. Ecology and the Port will maintain regular contact with owners/operators to track progress and to determine whether the requested leak detection and prevention methods are accomplished within the identified time periods.

- b) Ecology will conduct an inspection of UST systems at STIA that are subject to all provisions of the Washington UST regulations (WAC 173-360). Ecology will compile and/or update system information, provide technical assistance concerning compliance with UST requirements, notify owners/operators of violations, and conduct enforcement as appropriate. Ecology will report updated system information and results of inspections to the Port.
- c) The Port will create a database for all UST systems at STIA. The purpose of the database is to enable the Port to track the changes in operations and equipment of the UST systems at STIA brought about by (1) the procedures requested in Task IV.6(a), and/or (2) the procedures and upgrades of equipment required by the UST regulations to meet the 1998 UST standards. The database will include available UST system information such as tank size, age, construction, leak detection methods, corrosion protection, associated piping, etc., for all Port owned and tenant owned/operated UST systems.

- d) For the requirements of this Agreed Order, the Port will annually, for a period of five years beginning no more than 45 days following the execution of this Agreed Order, present to the owners/operators of UST systems at STIA a written request to provide (1) information identifying changes and upgrades made to UST system equipment and operations during the past year; and (2) specific descriptions of methods and procedures used to perform leak detection/prevention during the past year. The Port will update the UST database [Task IV.6(c)] with information provided in response to these requests.
7. The Port will prepare a report presenting the results of Tasks IV.6(a) and (c), (STIA Fuel Systems Pollution Prevention Report), at the conclusion of subtasks (b) and (c). The Port will include a report prepared by Ecology presenting the results of Task IV.6(b) as an Appendix to this report. The Port will also provide annual reports (STIA Fuel Systems Pollution Prevention Followup Reports) presenting the information generated by completion of Task IV.6(d). In addition, the Port will notify Ecology of apparent differences in UST system regulatory requirements and reported system design and/or operation, as well as apparent deviation from the accomplishment of owner/operator agreed leak detection and prevention measures, whenever such apparent differences or deviations become known. An approximate schedule of Tasks IV.6 and IV.7 activities (STIA Fuel Systems Pollution Prevention Tasks) is provided as Appendix 2.

## V.

### Terms and Conditions of Order

#### 1. Definitions

Unless otherwise specified, the definitions set forth in ch. 70.105D RCW and ch. 173-340 WAC shall control the meanings of the terms used in this Order.



2. Public Notices

RCW 70.105D.030(2)(a) requires that, at a minimum, this Order be subject to concurrent public notice. Ecology shall be responsible for providing such public notice and reserves the right to modify or withdraw any provisions of this Order should public comment disclose facts or considerations which indicate to Ecology that the Order is inadequate or improper in any respect.

V 3. Remedial Action Costs

The Port shall pay to Ecology costs incurred by Ecology beginning July 1, 1996, pursuant to this Order. These costs shall include work performed by Ecology or its contractors for investigations, remedial actions, and Order preparation, oversight and administration. Ecology costs shall include costs of direct activities and support costs of direct activities as defined in WAC 173-340-550(2). Ecology and the Port may enter into an agreement for the prepayment of recoverable MTCA costs related to the Airport. In the event that costs are not covered by a prepayment agreement, the Port shall pay the required amount within 90 days of receiving from Ecology an itemized statement of costs that includes a summary of costs incurred, an identification of involved staff, and the amount of time spent by involved staff members on the project. A general description of work performed will be provided upon request. Itemized statements shall be prepared quarterly. Failure to pay Ecology's costs within 90 days of receipt of the itemized statement of costs will result in interest charges.

4. Designated Project Coordinators

The project coordinator for Ecology is:

Roger Nye  
Department of Ecology  
Northwest Regional Office  
3190 160th Ave. SE  
Bellevue, WA 98008-5452

The project coordinator for the Port is:

Paul Agid  
Port of Seattle  
P.O. Box 68727  
Seattle, WA 98168

The project coordinator(s) shall be responsible for overseeing the implementation of this Order. To the maximum extent possible, communications between Ecology and the Port concerning implementation of this Order, and all documents, including reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Order, shall be directed through the project coordinator(s). Should Ecology or the Port change project coordinator(s), written notification shall be provided to Ecology or the Port at least ten (10) calendar days prior to the change.

5. Performance

All work performed pursuant to this Order shall be under the direction and supervision, as necessary, of a professional engineer or hydrogeologist, or similar expert, with appropriate training, experience and expertise in hazardous waste site investigation and cleanup. The Port shall notify Ecology as to the identity of such engineer(s) or hydrogeologist(s), and of any contractors and subcontractors to be used in carrying out the terms of this Order, in advance of their involvement in the project. The Port shall provide a copy of this Order to all agents, contractors and subcontractors retained to perform work required by this Order and shall ensure that all work undertaken by such agents, contractors and subcontractors will be in compliance with this Order.

Except where necessary to abate an emergency situation, the Port shall not perform any remedial actions at STIA, outside that required by this Order, that would foreclose

or preempt remedial actions under discussion or negotiation with Ecology unless Ecology concurs, in writing, with such additional remedial actions.

6. Access

Consistent with applicable safety and security requirements at STIA, Ecology or any Ecology authorized representative shall have the authority to enter and freely move about the project area at all reasonable times for the purposes of, inter alia: inspecting records, operation logs, and contracts related to the work being performed pursuant to this Order; reviewing the progress in carrying out the terms of this Order; conducting such tests or collecting samples as Ecology or the project coordinator may deem necessary; using a camera, sound recording, or other documentary type equipment to record work done pursuant to this Order; and verifying the data submitted to Ecology by the Port. By signing this Agreed Order, the Port agrees that this Order constitutes reasonable notice of access, and agrees to allow access to the project area at all reasonable times, consistent with applicable safety and security requirements at STIA, for purposes of overseeing work performed under this Order. Ecology shall allow split or replicate samples to be taken by the Port during an inspection unless doing so interferes with Ecology's sampling. The Port shall allow split or replicate samples to be taken by Ecology and shall provide seven (7) days notice before any sampling activity.

7. Public Participation

The Port and Ecology shall prepare a public participation plan for implementation of this Agreed Order. Ecology shall maintain the responsibility for public participation in the project with respect to this Agreed Order. The Port shall help coordinate and implement public participation in the project.

8. Retention of Records

The Port shall preserve in a readily retrievable fashion, during the pendency of this Order and for ten (10) years from the date of completion of the work performed pursuant to this Order, all records, reports, documents, and underlying data in its possession relevant to this Order. Should any portion of the work performed hereunder be undertaken through contractors or agents of the Port, then the Port agrees to include in their contract with such contractors or agents a record retention requirement meeting the terms of this paragraph.

9. Dispute Resolution

The Port may request Ecology to resolve disputes, which may arise during the implementation of this Order. Such request shall be in writing and directed to the signatory, or his/her successor(s), to this Order. Ecology resolution of the dispute shall be binding and final. The Port is not relieved of any requirement of this Order during the pendency of the dispute and remains responsible for timely compliance with the terms of the Order unless otherwise provided by Ecology in writing.

10. Reservation of Rights/No Settlement

This Agreed Order is not a settlement under ch. 70.105D RCW. Ecology's signature on this Order in no way constitutes a covenant not to sue or a compromise of any Ecology rights or authority. Ecology will not, however, bring an action against the Port to recover remedial action costs paid to and received by Ecology under this Agreed Order. In addition, Ecology will not take additional enforcement actions against the Port to require those remedial actions required by this Agreed Order, provided the Port complies with this Agreed Order.

Ecology reserves the right, however, to require additional remedial actions during the project should it deem such actions necessary.

Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the releases or threatened releases of hazardous substances from STIA.

In the event Ecology determines that conditions in the project area are creating or have the potential to create a danger to the health or welfare of the people in the project area or in the surrounding area or to the environment, Ecology may order the Port to stop further implementation of this Order for such period of time as needed to abate the danger.

11. Transference of Property

No voluntary or involuntary conveyance or relinquishment of title, easement, leasehold, or other interest in any portion of STIA shall be consummated by the Port without provision for continued implementation of all requirements of this Order and implementation of any remedial actions found to be necessary as a result of this Order. Prior to transfer of any legal or equitable interest the Port may have in the project area or any portions thereof, the Port shall ensure that any prospective purchaser, lessee, transferee, assignee, or other successor in such interest shall provide access to Ecology, consistent with applicable health and safety requirements at STIA, to carry out the terms of this Agreed Order. In the event the project area or any portions of the project area are sold to an entity not a party to this order, the Port shall notify Ecology of the contemplated sale at least thirty (30) days prior to finalization of any transfer.

12. Compliance with Other Applicable Laws

- a) All actions carried out by the Port pursuant to this Order shall be done in accordance with all applicable federal, state, and local requirements, including requirements to obtain necessary permits, except as provided in paragraph B of this section.

- b) Pursuant to RCW 70.105D.090(1), no substantive requirements of chapters 70.94, 70.95, 70.105, 75.20, 90.48, and 90.58 RCW and of any laws requiring or authorizing local government permits or approvals for the remedial action under this Order are known to be applicable at the time of issuance of the Order.

The Port has a continuing obligation to determine whether additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order. In the event the Port determines that additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order, it shall promptly notify Ecology of this determination. Ecology shall determine whether Ecology or the Port shall be responsible to contact the appropriate state and/or local agencies. Substantive requirements with respect to the City of SeaTac will be determined consistent with the Interlocal Agreement between Port of Seattle and City of SeaTac dated September 4, 1997. If Ecology so requires, the Port shall promptly consult with the appropriate state agencies and provide Ecology with written documentation from those agencies of the substantive requirements those agencies believe are applicable to the remedial action.

Ecology shall make the final determination on the additional substantive requirements that must be met by the Port under this Order and on how the Port must meet those requirements. Ecology shall inform the Port in writing of these requirements. Once established by Ecology, the additional requirements shall be enforceable requirements of this Order.

Ecology shall ensure that notice and opportunity for comment is provided to the public and appropriate agencies prior to establishing the substantive requirements under this section.

- c) Pursuant to RCW 70.105D.090(2), in the event Ecology determines that the exemption from complying with the procedural requirements of the laws referenced in RCW 70.105D.090(1) would result in the loss of approval from a federal agency which is necessary for the State to administer any federal law, the exemption shall not apply and PLP shall comply with both the procedural and substantive requirements of the laws referenced in RCW 70.105D.090(1), including any requirements to obtain permits.

## VI.

### Satisfaction of this Order

The provisions of this Order shall be deemed satisfied upon the Port's receipt of written notification from Ecology that the Port has completed the activities required by this Order, as amended by any modifications, and that all other provisions of this Agreed Order have been complied with.

## VII.

### Enforcement

- 1) Pursuant to RCW 70.105D.050, this Order may be enforced as follows:
- a) The Attorney General may bring an action to enforce this Order in a state or federal court.
  - b) The Attorney General may seek, by filing an action, if necessary, to recover amounts spent by Ecology for investigative and remedial actions and orders related to the project.
  - c) In the event the Port refuses, without sufficient cause, to comply with any term of this Order, the Port will be liable for:
    - 1) up to three times the amount of any costs incurred by the state of Washington as a result of its refusal to comply; and

- 2) civil penalties of up to \$25,000 per day for each day it refuses to comply.
- d) This Order is not appealable to the Washington Pollution Control Hearings Board.
- This Order may be reviewed only as provided under Section 6 of ch. 70.105D RCW.

Effective date of this Order: 5/25/99

THE PORT OF SEATTLE

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

By M. L. Dinsmore By Steve M. Shyaul



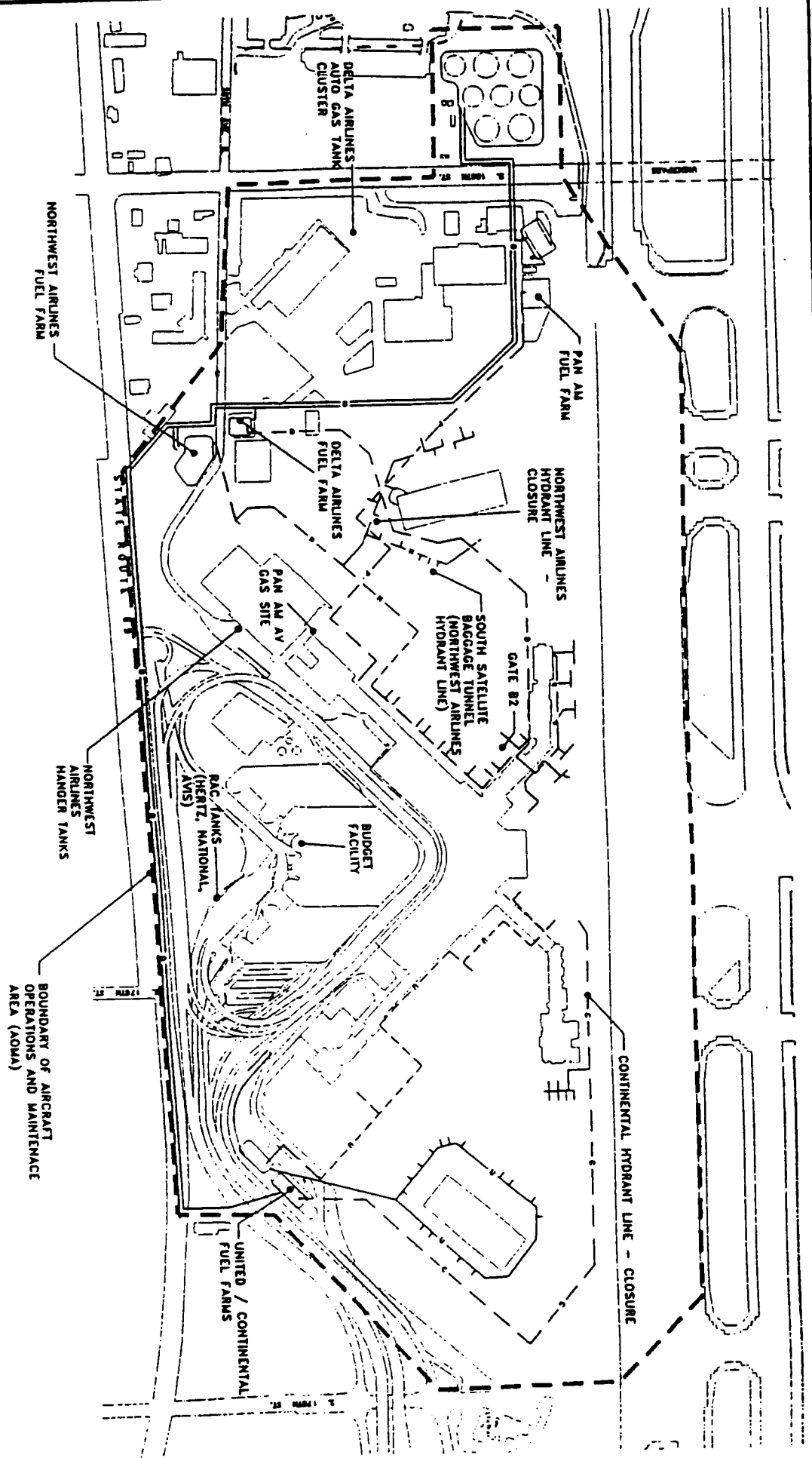


**ASSOCIATED  
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Project No.	45
Phase	P-1
Scale	1:500
Author	JLS
Checker	JLS
Apprver	JLS

**AIRCRAFT OPERATIONS &  
MAINTENANCE AREA (AOMA)  
STA GROUND WATER STUDY  
APPENDIX 1, PAGE 1**

Project No.	BV97016
Sheet No.	



- LEGEND**
- KNOWN CONTAMINATED SITE
  - EXISTING FUEL HYDRANT SYSTEM
  - REMOVED FUEL HYDRANT SYSTEM
  - CLOSED/ABANDONED FUEL HYDRANT SYSTEM

AR 008777

Appendix 1 – page 2

Sites within the AOMA that are known to have contaminants present in groundwater and/or significant soil contamination: (1)

Site	Perched Groundwater	Qva Aquifer	Jet A Only	Gasoline Only	Mixed Contaminants
United Airlines Fuel Farm/ Continental Airlines Fuel Farm	*		*		
Continental Airlines Hydrant System Closure			*		
Northwest Airlines Fuel Farm	*	*(2)	*		
Northwest Airlines Hydrant System Closure		*	*		
Northwest Airlines Hangar Tanks	*	*			*
South Satellite Baggage Tunnel (NW Airlines Hydrant Line)		*	*		
Gate B2		*			*
Delta Airlines Fuel Farm	*		*		
Delta Airlines Auto-Gas Cluster Tanks	*				*
Pan American Airlines Fuel Farm (3)			*		
Pan American Airlines Avgas Tanks	*	*	*		
Budget Auto Facility		*		*	
RAC Auto Facility (Hertz/National/Avis)		*		*	

(1) Current as of January 1999

(2) TPH-Jet A levels in two wells slightly in excess of Method A in some sampling rounds during 1996 & 1997. All TPH-Jet A levels below Method A prior years and 1998.

(3) No further cleanup actions at this time. Contaminated soil remains next to active jet fuel lines.

AR 008778

Task Item

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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

AR 008781



June 30, 1997

Page 2

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

AR 008782

June 30, 1997

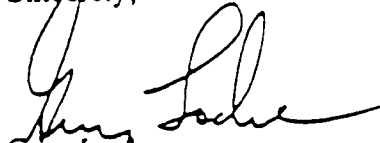
Page 3

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 008783



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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

December 20, 1996

REC'D ANM-610  
PLAN, PGM, & CAM DR

DEC 23 1996

ANM-610 \_\_\_\_\_

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 008784





- (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,

A handwritten signature in cursive script that reads "Mary Riveland".

Mary Riveland  
Director

cc: Gina Marie Lindsey, Port of Seattle

AR 008786