

Kenny, Ann

From: Marchioro, Joan (ATG)
Sent: Friday, September 07, 2001 6:59 PM
To: 'Tom Walsh'; 'Newlon, Tom'; 'Manning, Jay'
Cc: Hellwig, Raymond; Kenny, Ann
Subject: FW: Draft settlement agreement and SPLP work plan

Importance: High



Sept 7 Stip
Settlement.doc



SPLP Work
Plan.DOC

For Settlement Purposes Only/Exempt from Disclosure Under ER 408

Here are the edits we discussed today. Thanks.

-----Original Message-----

From: Newlon, Tom [mailto:newlon.t@portseattle.org]
Sent: Friday, September 07, 2001 12:51 PM
To: Jay Manning (E-mail); Marchioro, Joan (ATG)
Subject: Draft settlement agreement and SPLP work plan

<<Sept 7 Stip Settlement.doc>>
Plan.DOC>>

<<SPLP Work

SETTLEMENT AGREEMENT

Regarding
Appeal of §401 Certification #1996-4-02325

This Settlement Agreement is entered into between the Washington State Department of Ecology ("Ecology") and the Port of Seattle ("Port") this _____ day of September, 2001.

Background

i. The Port applied to the U.S. Army Corps of Engineers ("Corps") for a permit under §404 of the Clean Water Act to authorize the discharge of fill material into waters of the United States, necessary to construct a third runway and other improvements at Seattle-Tacoma International Airport. This application triggered a request to Ecology for certification under § 401 of the Clean Water Act and concurrence under §307(c)(3) of the Coastal Zone Management Act (the "§401 Certification") for the project. On August 10, 2001, Ecology issued Order # 1996-4-02325, which constituted its §401 Certification.

ii. Following issuance of the §401 Certification, the Port notified Ecology that it intended to appeal certain provisions of the §401 Certification to the Washington State Pollution Control Hearings Board, to seek clarification and ~~revision~~modification of some of the conditions in the §401 Certification. In response, Ecology and the Port discussed the Port's need for clarification and reached an understanding as set forth herein. The Port will file an appeal of the §401 Certification for the sole purpose of implementing this settlement agreement. The parties will jointly request that the Board amend the §401 Certification as set forth herein and then dismiss the Port's appeal of the issues for which the Board grants approval of the requested clarifications and revisions.

Agreement

A. **Clarification and Revision of §401 Certification.** The parties hereby agree that the §401 Certification should be clarified and/or revised as follows:

1. **Condition B(1).** This condition shall be revised as follows: "This Order shall be valid during construction ~~and long term operation and maintenance~~ of the project. The following provisions of this Order shall be valid during long-term operation and maintenance of the project:
 - In Condition D, Wetland, Stream and Riparian Mitigation, as follows: The mitigation areas to be protected by restrictive covenants, and the Final Natural Resource Mitigation Plan as amended, shall remain in effect in perpetuity.
 - In Condition D(7), provisions regarding wetland, stream, and riparian mitigation monitoring and reporting shall remain in effect as specified therein.

- In Condition E(3), the Surface Water and Ground Water Monitoring plan shall remain in effect as specified in that plan but in no event for a duration less than 8 years.
- In Condition F(1), the plan to monitor potential contaminant transport to soil and groundwater via subsurface utility lines shall remain in effect as specified in that plan but in no event for a duration less than 8 years.
- In Condition I, Conditions for Mitigation of Low Flow Impacts, as follows: The low streamflow facilities, and the revised low streamflow plan as amended, shall remain in effect in perpetuity.
- In Condition H, Operational Stormwater Requirements, as follows: Those provisions of this condition, including the Comprehensive Stormwater Management Plan, that are will be incorporated into and superceded by the next Ecology-approved NPDES permit for STIA, as determined in that permit. Any conditions not incorporated into a future Ecology-approved NPDES permit for STIA shall remain in effect as provided in the condition.
- ~~Condition N, Violations of this Order, shall remain in effect with regard to the other provisions of this Order that remain in effect as described herein.~~

In the event of an inconsistency between the requirements of this Order and a later issued Ecology Order, permit, or amended plan, the later issued Order, permit, or amended plan shall govern.

2. **Condition B(4).** The second sentence of this condition relates to Ecology approval of future Port construction-related activities. To clarify this provision, the following phrase shall be added at the end of this sentence: “if the activity requires §401 certification or is otherwise within Ecology’s statutory authorization.”
3. **Condition D(1)(g).** This condition requires Port monitoring of wetlands downslope of the Third Runway embankment. The third sentence of this condition shall be revised as follows: “The Port shall conduct bi-monthly hydrologic monitoring during the wet season, November through May, beginning immediately and before construction of Third Runway impervious surface prior to placement of fill in wetlands and wetland buffers and for at least three (3) years after completion. The hydrologic monitoring shall include both groundwater and soil saturation data. By October 1, 2001, the shall submit to Ecology a map identifying all sampling locations.”
4. **Condition D(6)(f).** This condition requires the Port to increase the wetland buffer in the vicinity of Borrow Area 3. This condition shall be revised as follows: (a) Add a new sentence “This condition only applies to ~~en~~-property currently owned by the Port”; and (b) Replace the drawing in Attachment D with the drawing attached to this agreement. [NOTE: NEW DRAWING BEING PREPARED]
5. **Condition E(1).** This provision shall be clarified as follows: “The Port shall adhere to the following conditions to ensure that the fill placed for the projects for

which the §404 permit was sought (i.e., Third Runway, Runway Safety Areas, and South Aviation Support Area) 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 amounts into waters of the state which includes wetlands."

6. **Condition E(1)(a).** This condition concerns the required acceptance process for imported fill material. The first three sentences of this condition shall be revised as follows: "No later than five (5) business days ~~No later than ten (10) business days~~ Prior to accepting any fill materials for use for the projects for which the §404 permit was sought (i.e., Third Runway, Runway Safety Areas, and South Aviation Support Area), on the proposed Third Runway embankment and associated construction projects of the Port's Master Plan Update Improvements, the Port shall ~~certify~~ submit to Ecology's Federal Permit Manager, SeaTac Third Runway, ~~documentation certifying~~ documentation certifying that the proposed fill source meets the criteria of this Order ~~and shall submit supporting documentation demonstrating compliance with 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. Ecology reserves the right to disapprove fill materials following review of the Port's supporting documentation and a determination that the fill criteria were not met. In the event of such disapproval, Ecology reserves its rights to enforce the terms of this Order and require appropriate remedial measures."

[My recollection of where we ended up with the next condition was that I would provide you Ecology's suggested language and you would provide any alterations plus the revised SPLP and the test laid out in the last sentence. If my memory is incorrect, please let me know.]

7. **Condition E(1)(b).** This condition concerns the fill criteria for imported fill material. The following sentence shall be added to the end of the last paragraph of this provision: "If the proposed fill does not meet the fill criteria in Condition E.1.(b), the Port can demonstrate the suitability of that fill by employing a Synthetic Precipitation Leaching Procedure (SPLP), SW-846 Method 1312 (any author reference?). The Port shall, by November 1, 2001, submit to Ecology for review and approval a work plan for the implementation of the SPLP testing protocol. Where the Port utilizes the SPLP method to demonstrate the suitability of fill, such fill shall not be used until written approval is obtained from Ecology. As an alternative to meeting the fill criteria listed above, the Port can demonstrate the suitability of fill using the procedures described in the Synthetic Precipitation Leaching Procedure (SPLP) work plan approved by the U.S. Fish and Wildlife Service (FWS) pursuant to the FWS's May 22, 2001 biological opinion (FWS Reference Number 1-3-00-F-1420) concerning the Port's Master Plan Update projects, attached hereto as Exhibit A, with the following additional requirement:

The test leachate shall be compared to groundwater quality criteria under WAC 173-340-900, Table 720-1, and groundwater quality standards under WAC Chap. 173-200, in addition to the Ambient Water Quality Criteria in WAC Chap. 173-201A, with the most stringent value being applied.”

8. **Condition J(1)(c).** This condition requires the Port to complete 20% of its stormwater retrofit for every 10% of new impervious surface. In a different condition, the §401 Certification adopts the project construction schedule of the Stormwater Management Plan, which includes retrofit projects. To avoid conflict between these requirements, this condition shall be revised to add the following sentence: “Where the project schedule in the Stormwater Management Plan (including Table A-3) conflicts with this condition, the Port and Ecology shall discuss an appropriate retrofit schedule.”
9. **Condition J(2)(a).** This condition shall be revised as follows: “No stormwater generated by operation of the facilities approved by this Order ~~new pollution generating impervious surfaces of projects for which the §404 permit was sought (excluding surfaces not to be included in the airport NPDES permit, e.g., S. 154th St. which is a City of SeaTac facility)~~ shall be discharged to state receiving waters until a site-specific study, e.g., 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~~ The study may use existing impervious surfaces as a surrogate for future new impervious surfaces, and it 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 study.”
10. **Condition J(2)(f).** To clarify the intent of this condition, it shall be revised as follows: “The Port shall identify methods to prevent overtopping of stormwater facilities and the Industrial Wastewater Treatment System to streams during design storm events.”
11. **Condition K(2).** To clarify the intent of this condition, it shall be revised as follow: “Stormwater discharges shall not cause a visible change in turbidity, color, or cause a visible oil sheen in the receiving water ~~or~~ from any stormwater detention or retention pond.”

B. Board Approval of Settlement Agreement and Dismissal of Appeal. The parties will jointly submit this Settlement Agreement to the Pollution Control Hearings Board and request approval of the §401 Certification clarifications and revisions listed above. The Port will request dismissal of its appeal of the issues for which the Board grants approval of the requested clarifications and revisions.

WASHINGTON STATE DEPARTMENT OF ECOLOGY

DRAFT

By: _____
Its: _____

Date

PORT OF SEATTLE

By: _____
Its: _____

Date

SYNTHETIC PRECIPITATION LEACHING PROCEDURE WORK PLAN

The Port of Seattle (Port) will follow specific standards and protocols concerning the placement of fill in the Third Runway embankment. These standards and protocols are contained in the U.S. Fish and Wildlife Service's (FWS's) May 22, 2001 biological opinion (BO) (FWS Reference Number 1-3-00-F-1420). This work plan for the Synthetic Precipitation Leaching Procedure (SPLP) has been developed in accordance with the requirement that: "The Port shall submit to FWS for its review and approval a plan describing the Port's SPLP protocol. The FWS shall approve this plan prior to the Port's implementation of the SPLP protocol."

I. Summary of Drainage Layer Cover Agreement

The FWS standards and protocols require the establishment of a zone of "ultra-clean" fill above the drainage layer termed the "drainage layer cover." The purpose of placing "ultra-clean" fill in the drainage layer cover is to protect surface water receptors in Miller Creek. Soil to be placed in the drainage layer cover and for which testing is required will be evaluated relative to the screening criteria contained in the BO, summarized as follows:

- For the eight RCRA metals the screening criteria are shown in column seven of Table 9 of the BO (attached). The lower range of concentrations in this column are Puget Sound background levels. When background levels are not available, lower range concentrations are calculated using the Three Phase Partitioning Model approach as described in WAC 173-340-747 (adjusted for practical quantitation limits or PQLs). The upper range of concentrations in column seven are MTCA Method A standards. When no MTCA Method A standard is available, an upper range concentration is not provided.
- For organochlorines, the lower range of the screening criteria will be developed using the Three Phase Partitioning Model approach as described in 173-340-747 (adjusted for PQLs). As with the metals, MTCA Method A standards, when available, will be set as the upper limit of the screening criteria for organochlorines.

At proposed fill sources for which sampling is required in accordance with Ecology testing requirements (1999 Airfield Project Soil Fill Acceptance Criteria), samples of proposed fill will be collected and analyzed for the eight RCRA metals and, pursuant to the BO requirements, for organochlorines. Constituent concentrations will be compared to the lower screening criteria (i.e., column seven of BO Table 9 for RCRA metals and the calculated Three Phase Partitioning Model concentrations for organochlorines). If the lower screening criteria are not exceeded, fill will be considered suitable for placement in the drainage layer cover. If the lower screening criteria are exceeded, the Port will employ the protocols discussed in this document and below prior to accepting such fill. The Port will not accept fill that exceeds the higher screening level (i.e., Method A standards) without first discussing this issue with FWS.

II. SPLP Testing Protocol

The purpose of the SPLP is to evaluate the potential for metals and organic constituents to mobilize and move through soils in fluid form. The SPLP is a laboratory test that is an accepted leaching test as discussed in MTCA 173-340-747(7). The SPLP will be conducted in accordance with the procedures contained in SW-846 Method 1312. In the SPLP, fluid representing acid rain is passed through a soil sample and the liquid is collected and analyzed.

The three conditions for using the SPLP, as described in Enclosures 1 and 2 to the May 22, 2001 BO, are as follows:

1. For the RCRA eight metals, as described in 1(b)(ii) of Enclosure 1, "no soil will be accepted for the drainage layer cover that exceeds the back-calculated values shown in the second column of Table 9 (with adjustments for QOLs and background concentrations as noted in Table 9 footnotes) unless the SPLP confirms the suitability of the soil."
2. For the RCRA eight metals, as described in 1(b)(iii) of Enclosure 1, "if suppliers wish to place soil in the drainage cover layer that exceed background concentrations, the Port will confirm the acceptability of the material by requiring suppliers using that source to conduct sufficient SPLP testing to show that Method A criteria are protective of baseline conditions for surface water receptors." As discussed with FWS, concentrations of arsenic and potentially other metals may exceed background concentrations, but remain below Method A standards (i.e., the upper screening criteria). This is because metals have wide spread concentration variability throughout the Pacific Northwest, and further, because the Puget Sound background numbers represent the 90th percentile (i.e., by definition, 10% of the Puget Sound data exceeds background). The Port will evaluate the SPLP results for specific metals relative to the ambient water quality criteria as discussed below. If the criterion for that specific metal is consistently not exceeded for each source of fill material, the Port will discontinue the requirement to implement the SPLP for that metal and adopt the Method A standard (i.e., the upper screening criteria) as its new soil screening criteria. The Port will discuss SPLP results with FWS prior to discontinuing the SPLP and adopting the Method A standard. Further, in the event that SPLP results consistently show that criteria for specific metals are not exceeded across a range of sites and soil conditions, the Port may elect to submit such information to FWS for its review as evidence that the Port may discontinue the requirement to implement SPLP for specific metals. Upon approval by FWS, the Port may then adopt the Method A standard as its new soil screening criteria.
3. For organochlorines, as described in 1(c)(iii) of Enclosure 1, "...no soil will be accepted for the drainage layer cover that exceeds Three Phase Partitioning Model concentrations (adjusted for QOLs) unless SPLP testing confirms the suitability of the soil."

The Port will require that suppliers conduct the SPLP at all fill sources proposed for placement in the drainage layer cover where RCRA eight metals or organochlorine concentrations exceed the conditions described above, but are below Method A standards. A qualified environmental professional will perform all sampling. At a minimum, one SPLP sample will be collected for each original sample that exceeds the screening criteria. This sample will be representative of the area where the original sample

indicating an exceedance was collected. The SPLP will only be conducted for the specific chemical constituent that exceeds the criteria.

III. Screening Procedure

Results from the SPLP will be compared to freshwater ambient water quality criteria according to guidelines outlined in WAC 173-201A-040 (adjusted for PQLs). As an initial screening tool, the constituent concentrations as determined from the SPLP will be divided by a dilution factor of 20. The default dilution factor of 20 was established by Ecology for use in the Three Phase Partitioning Model (WAC 173-747). This dilution factor represents a very conservative estimate because it accounts only for the dilution that occurs between the pore water at the spot in the embankment where the constituent exceeded water quality criteria, and ground water in the saturated zone directly below, without accounting for attenuation processes. The actual dilution factor, first from a specific point in the embankment through the underlying drainage layer and then transport to Miller Creek, is much greater. If the Port elects to develop a dilution factor based on site-specific conditions that is greater than the Ecology default value of 20, the Port will discuss such site-specific information with FWS and obtain its approval prior to adopting a different dilution factor. If the adjusted SPLP results are equal to or below the freshwater ambient water quality criteria, the material will be considered suitable for placement in the drainage layer cover. If adjusted SPLP results are above freshwater ambient water quality criteria, the material will not be considered suitable for placement in the drainage layer cover.

Table 9. Soil Screening Criteria for the SeaTac Embankment Fill (milligram/kilogram (mg/kg)) (adapted from J. Lynch, Stoel Rives, pers. com. 2001).

RCRA ¹ Metals	Three Phase Partitioning Model Concentrations ²	MTCA ³ Unrestricted Land Use			Puget Sound Background (upper 90 percent) ⁵	Screening Criteria	
		Current Method A Standard	Proposed Method A Standard ⁴	Proposed Ecological Standard ⁴		Drainage Layer Cover	Top 3-feet of Embankment
Arsenic	88	20	20	95 (As V)	7	7 - 20 ⁶	20 ⁷
Barium	12,000	NA ⁸	NA	1,250	NA	12,000 ⁹	1,250 ¹⁰
Cadmium	0.15	2	2	25	1	1 - 2 ¹¹	2 ⁷
Chromium (total)	NA	100	NA	42	48	48 - 100 ^{11,12}	48 ¹³
Lead	500	250	250	220	24	24 - 250 ¹⁴	220 ¹⁰
Mercury (inorganic)	0.013	1	2	9	0.07	0.07 - 2 ¹¹	2 ⁷
Selenium	0.52	NA	NA	0.8	NA	5 (PQL ¹⁵) ^{16,17}	5 (PQL) ¹⁶
Silver	0.11	NA	NA	NA	NA	5 (PQL ¹⁵) ^{16,17}	5 (PQL) ¹⁶

¹ RCRA: Resource, Conservation and Recovery Act

² MTCA WAC 173-340 747 (3), (4), and (5) Three Phase Partitioning Model soil concentrations calculated using aquatic freshwater quality criteria (WAC 173-201A). For purposes of this table, the lowest criteria from "Freshwater CCC Chronic" Screening Quick Reference Table (NOAA SQUIRT Table) were used.

³ MTCA: Model Toxics Control Act, Washington Administrative Code (WAC) 173-340.

4 Proposed MTCA Method A and Ecological standards were finalized on February 15, 2001, and will become effective on
August 15, 2001.

5 Natural Background Soil Metals in Washington State (Ecology Publication 94-115).

6 The MTCA Method A standard of 20 mg/kg is less than the Three Phase Partitioning Model concentration of 88 mg/kg
indicating that the MCTA Method A standard is protective of surface water receptors. When soil concentrations are greater
than background but below the MCTA Method A standard, sufficient SPLP testing will be conducted to confirm that the
MCTA Method A standard is protective (see associated text in Attachment A for discussion of SPLP testing).

7 Screening criteria based on MTCA Method A standards.

8 NA: not available. Insufficient information available to develop the criteria.

9 Three Phase Partitioning Model concentrations calculated using MTCA Method B ground water quality criteria because there
was no available criteria for barium in surface water. If concentrations exceed calculated values, SPLP testing will be required
to evaluate the suitability of the soil.

10 Screening criteria based on ecological standards.

11 Three Phase Partitioning Model concentrations, adjusted upward to background, and MTCA Method A standards. To verify
the protectiveness of MCTA Method A standards, SPLP testing will be conducted when soil concentrations exceed background
but are below MCTA Method A standards. (Note: exceedances in background concentrations anticipated due to natural
variability of soil types being used as fill.)

12 Chromium speciation may be conducted in the event SPLP is applied.

13 Screening criteria based on ecological standards, adjusted for background.

14 The MTCA Method A standard of 250 mg/kg is less than the Three Phase Partitioning Model concentration of 500 mg/kg
indicating that the MTCA Method A standard is protective of surface water receptors. When soil concentrations are greater
than background but below the MTCA Method A standard, sufficient SPLP testing will be conducted to confirm that the
MCTA Method A standard is protective.

15 PQL: Practical Quantification Limit

16 PQLS from Department of Ecology "Implementation Memo No. 3: PQLs as Cleanup Standards," November 24, 1993.

17 Three Phase Partitioning Model concentrations, adjusted upward to PQL. If soil concentrations exceed the PQL, SPLP testing
will be required to evaluate the suitability of the soil.