

APPENDIX A
PERMITS AND APPROVALS

No.	Permit/Approval	Issuing Agency	Permit No.	Date Issued
1	Building Permit	City of Bellingham	BLD2015-00218	07/17/2015
2	Building Permit Special Inspections Agreement	City of Bellingham	BLD2015-00218	07/09/2015
3	Substantive Compliance Letter	City of Bellingham	N/A	02/12/2013
4	Coastal Zone Management Act Consistency E-mail (not required per 05/16/2013 e-mail)	Washington State Department of Ecology	N/A	N/A
5	Construction Stormwater General Permit	Washington State Department of Ecology	WAR302834	04/16/2015
6	Waste Discharge Permit	Washington State Department of Ecology	WA0001091	12/17/2014
7	Endangered Species Act Section 7 Concurrence Letter and Magnuson-Stevens Essential Fish Habitat Response for the Port of Bellingham Whatcom Waterway Cleanup in Phase 1 Site Areas; Bellingham Bay; COE No. NWS-2012-1218, Whatcom County, Washington (6th Field HUC:171100020404 North Puget Sound)	National Marine Fisheries Service Northwest Region	NWR-2013-9889	05/24/2013
8	Port of Bellingham Whatcom Waterway Cleanup Concurrence Letter	U.S. Fish and Wildlife Service	01EWF00-2013-1-0223	06/26/2013
9	Cultural Resources Review Compliance E-mail	U.S. Army Corps of Engineers	NWS-2012-1218	11/26/2012
10	Memorandum of Agreement Between the U.S. Army Corps of Engineers and Port of Bellingham	U.S. Army Corps of Engineers	NWS-2012-1218	01/15/2015
11	Nationwide Permit 38	U.S. Army Corps of Engineers	NWS-2012-1218	01/15/2015
12	Nationwide Permit 38 Modification Letter (Design Update)	U.S. Army Corps of Engineers	NWS-2012-1218	07/19/2015
13	Nationwide Permit 38 Modification Letter (Work Window Extension)	U.S. Army Corps of Engineers	NWS-2012-1218	02/13/2016
14	Section 408 Permit	U.S. Army Corps of Engineers	NWS-2012-1218	01/15/2015
15	Model Toxic Control Act Substantive Comments – Whatcom Waterway Phase I Areas – Whatcom Waterway, Tributary to Bellingham Bay, WRIA 01.9000	Washington Department of Fish and Wildlife	N/A	12/17/2012
16	Aquatic Use Authorization on Department of Natural Resources (DNR)-managed Aquatic Lands	Washington State Department of Natural Resources	N/A	12/03/2012
Sediment Offload and Disposal Facility Permits				
17	Waste Discharge Permit for Marine Vacuum Service (used for management of waters generated during sediment offloading)	Washington State Department of Ecology	7676-05	05/16/2011
18	Solid Waste Disposal Site Permit: Municipal Solid Waste Landfill Columbia Ridge Landfill	State of Oregon Department of Environmental Quality	391	06/11/2007
19	Combined Operating Permit for Municipal Solid Waste Landfilling and Solid Waste Handling Facility	Chelan-Douglas Health District	N/A	07/11/2008
20	LaFarge Solid Waste – Facilities Storage/Treatment Piles Permit	Seattle and King County Public Health	PR0034434	01/01/2015
21	LaFarge National Pollutant Discharge Elimination System Waste Discharge Permit	Washington State Department of Ecology	WA0002232	12/30/2010
Colony Wharf Float Project Permits				
22	Letter of Permission	U.S. Army Corps of Engineers	NWS-2015-556	09/10/2015
23	Hydraulic Project Approval	Washington Department of Fish and Wildlife	2015-4-706+01	09/10/2015
24	Shoreline Permit Exemption Authorization	City of Bellingham	SHR2015-00017	10/09/2015



City of Bellingham
City Hall - 210 Lottie Street
Bellingham, WA 98225
Phone: (360) 778-8300
Fax: (360) 778-8301
E-MAIL: permits@cob.org

LOCATION:
900 C ST
DATE ISSUED:
7/17/2015
EXPIRATION DATE:
7/16/2017

PERMIT #: BLD2015-00218

BUILDING NONRESIDENTIAL TENANT IMPROVEMENT

DESCRIPTION: **COMMERCIAL: INSTALL NEW MAPLE STREET BULKHEAD AS PART OF THE**

APPLICANT
JOHN HERGESHEIMER 1801 ROEDER AVE BELLINGHAM, WA 98227-1677
PHONE: Email: johnh@portofbellingham.com
LIC #:
CONTRACTOR
AMERICAN CONSTRUCTION 1501 TAYLOR WAY TACOMA, WA 98421
PHONE: (253)254-0118 Email: LIC #: 000671
LEN
SELF FINANCED , PHONE:

PROJECT VALUATION	\$1,490,200.00
ESTIMATE VALUATION (EST)	\$1,490,200.00

POST THIS PERMIT ONSITE WITH THE APPROVED PLANS

COMPLIANCE WITH ALL INSPECTIONS AND CONDITIONS REQUIRED
PRIOR TO OCCUPANCY

ALL INSPECTIONS SHOULD BE SCHEDULED A MINIMUM OF 1 BUSINESS DAY IN ADVANCE
INSPECTION PHONE - (360) 778-8303 - 24 HOURS



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7/16/2017

PERMIT #: BLD2015-00218

BUILDING NONRESIDENTIAL TENANT IMPROVEMENT

Email:
LIC #:
OWNER
PORT OF BELLINGHAM PO BOX 1677 BELLINGHAM, WA 98227-1677
PHONE:
Email:
LIC #:

CONDITIONS

BSD - SPECIAL INSP-OTHER: Special inspector shall provide the Building Official with a copy of all field reports, and a stated conclusion about the acceptability of the work completed identified on the Special Inspections & Testing Agreement.

BSD - VALIDITY OF PERMIT: Permits presuming to give authority to violate or cancel the provisions of this code or other ordinances of the jurisdiction shall not be valid.

The issuance of this permit is based upon plans, specifications, and other data and shall not prevent the building official, or appointed deputies, from thereafter requiring the correction of errors in said plans, specifications and other data, or from preventing building operations being carried on thereunder when in violation of this code or of any other ordinances of this jurisdiction.

BSD-SUBJECT TO FIELD INSPECTION: This permit is issued subject-to-field-inspections and approvals.

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BUILDING NONRESIDENTIAL
TENANT IMPROVEMENT

For questions regarding this project, your contact in The Permit Center is:
Name: **KELSEY BRENDER** Phone: **(360)778-8314** Email: **klbrender@cob.org**

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INSPECTION LINE:
(360) 778-8303
INSPECTION WEB SITE:
www.cob.org/epermits

INSPECTION	INSPECTION CODE	APPROVED DATE	INSPECTOR
PIERS / PILE CAPS / GRADE BEAM			
PRE-CONSTRUCTION MTG	402		
TEMP EROSION CONTROL	205		
FOOTING	410		
PILE CAPS	412		
GRADE BEAMS	413		
FOUNDATION WALLS	415		
UNDERGRND INSULATION	417		
STRUCTURAL SLAB	420		
INSTALLATION STORM	522		
ONSITE FACILITIES	230		
SHEAR NAILING	435		
SITE STABILIZATION	235		
ROOF SHEATHING	436		
FRAMING	450		

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MASONRY	451		
STRUCTURAL STEEL	452		
TILT UP WALL PANEL	453		
CON OR MAS COLUM	454		
INSULATION	455		
DRYWALL NAILING	456		
SUSPENDED CEILING	475		
FINAL - FIRE	790		
FINAL - PARKS	890		
FINAL - PLANNING	690		
FINAL - STORMWATER	290		
FINAL - BUILDING	495		
OTHER	498		

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 fax: 360-778-8301
 www.cob.org

SPECIAL INSPECTION & TESTING AGREEMENT

1. Engineer or architect of record shall identify all special inspection requirements on the plans and specifications prior to submittal of plans for permit application. The engineer or architect of record shall respond to deficiencies identified by the Special Inspector, and submit remedial corrections, as required to all parties to this agreement.
2. Prior to issuance of a building permit, the owner or the owners agent shall designate an approved special inspection and testing agency and complete two copies of the special inspection and testing agreement, including the special inspection and testing schedule and signed acknowledgements. The contractor or any persons performing the work shall not retain the special inspection firm.
3. Special Inspectors shall be approved by the Building Services Division prior to performing any special inspection duties. All special inspection agencies shall be certified under the WABO Special Inspector Certification program, unless qualifications acceptable to the Building Official have been submitted, verified and approved.
4. A preconstruction conference with the parties involved may be required to review the special inspection requirements and procedures prior to commencement of work.
5. The contractor shall notify the Special Inspector and schedule inspections when required, and is responsible for providing the Special Inspector access to the approved plans and specifications at the job site. The contractor shall retain at the job site all records submitted by the Special Inspector, and provide these records to the building inspector as requested.
6. The Special Inspector shall perform all inspection and reporting duties as identified in Section IV, including:
 - (a) Observe work, take samples
 - (b) Retain daily reports at job site
 - (c) Report non-compliance items
 - (d) Furnish periodic reports to the Building Services as requested
 - (e) Furnish final inspection reports
7. By signing this document it is acknowledged that special inspections do not supplant City of Bellingham inspection approvals and that special inspections are for purposes of reporting only. Special inspections do not carry authority to approve work.
8. Building Services Division shall approve all special inspection requirements and inspectors prior to permit issuance. The designated BSD project inspector shall monitor the special inspection program and provide approval of activities and construction process. No Certificate of Occupancy or final inspection approval will be issued by BSD until all special inspection reports and final reports have been submitted and accepted.

ACKNOWLEDGEMENTS

The undersigned have read and agree to comply with the terms and conditions of this agreement and the attached special inspection and testing schedule.

PROJECT ADDRESS: 900 C St.		PERMIT NUMBER: BLD2015-00218	
ORGANIZATION	PRINTED NAME	SIGNATURE	DATE SIGNED
Owner			
Contractor			
Engineer/Architect of Record KPF	ROBERT RILEY	<i>Robert Riley</i>	7/9/15
Special Inspection Agency GeoTest Services Inc	Jeremy Wolf	<i>Jeremy Wolf</i>	7/8/15
Building Services Division			

PROJECT NAME:	PERMIT NUMBER:
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SECTION 3: SPECIAL INSPECTION AND TESTING SCHEDULE

Concrete, Grout and Mortar	CONCRETE					SHOTCRETE	GROUT	MORTAR
	FOOTINGS	RET. WALLS	WALLS	SLABS	COLUMNS			
CONCRETE & CEMENTITIOUS MAT'LS:								
Mix Designs								
Aggregate Tests								
Batch Plant Inspection								
Concrete Batching								
Concrete Placement								
Field Admixtures								
Cast Samples (#/Pour)								
Slump								
Pick-up Samples								
Compression Tests (list ages)								
Admixture Certs:								
Other: CURING								
REINFORCING & INSTALLATION								
Reinforcing Tests								
Reinforcing Placement								
Steel Inserts								
Mill Certs or Other:								
CAST-IN-PLACE ANCHOR BOLTS:								
ADHESIVE ANCHORS								
PRESTRESSED CONCRETE	PILES	COLUMNS	BEAMS	SLABS	WALLS			
Tendon Tests or Mill Certs								
Tendon Placement								
Tensioning								
INSULATING CONCRETE:	Sample and test		Placement Inspection			Unit weights		
OTHER:								

Masonry:	Special Inspection Design Stresses Used?	Placement Inspection (Full, Periodic, None)	Acceptance Tests? (Y/N, Prisms, Units)	Field Prism Tests (Y/N, frequency)
Shear Walls				
Other:				

Steel and Welding:	Identify Members or Connections					Reinforcing	Concrete Inserts	Metal Deck	Steel Studs
	PEN	>5/16	<5/16						
Identify sizes. Sample and test materials									
Welds (U= U/T, V=visual, X= radiographic)									
Shop Welding									
Field Welding									
Review Welder's Certificates									
Other:									
Bolts (Enter S for Shop Testing, F for Field Testing, N for None. Only bolts marked "SC" receive torque testing.)	A307	A325-N	A325-X	A325-SC	A490-N	A490-X	A490-SC	Other: F-1554	

Structural Wood:	Shear wall sheathing, holddowns, nailing.	Glued-Laminated Timber Fabrication	Timber Connections and Bolting	Manufactured Joist Fabrication
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Piling: Driven	Diameter SIZE	Mat'l Identification	Blow Counts	Tip Elevation
Caisson or Augercast	Diameter	Pressure/Volume	Tip Elevation	See Structural Notes
Other				

Soils and Fill Material:	Material Acceptance Tests:	Placement Inspection:	Field Density:
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Fireproofing:	Placement Insp.	Density Tests	Thickness Tests	Batching Insp.
Fire-resistant penetrations and joints	Penetration firestops		Fire-resistant joint systems	

Other:



PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT

210 Lottie Street, Bellingham, WA 98225
Telephone: (360) 778-8300 Fax: (360) 778-8302 TTY: (360) 778-8382

February 12, 2013

Mr. John Hergesheimer, P.E.
Port of Bellingham
PO BOX 1677
Bellingham, WA 98227-1677

RE: Whatcom Waterway Clean Up - PHASE 1 - Substantive Compliance

Mr. Hergesheimer:

I have reviewed the set of materials specified below that describe implementation of Phase 1 of the Whatcom Waterway Cleanup Action Plan. Phase 1 is being conducted pursuant to the Washington State Model Toxics Control Act (MTCA). Cleanup actions reviewed and approved under MTCA are exempt from local permitting processes but must demonstrate substantive compliance with local regulations.

The action occurs in distinct sub-areas as follows and as shown on Plates ES-1 through 3 of the Executive Summary of APPENDIX 1 in the JARPA:

- Bellingham Shipping Terminal
- Log Pond
- GP West
- Inner Waterway: South Shoreline and Central Waterfront

Phase 1 includes the following elements (summarized) to be conducted within the Whatcom Waterway:

- Removal of nearly 160,000 cubic yards of contaminated sediment;
- Placement of up to 126,600 cubic yards of clean capping materials to prevent potential erosion and recontamination;
- Removal of approximately 263 tons of creosote-treated timber pilings and bulkheads;
- Removal of man-made debris from approximately 47,000 square feet of shoreline and intertidal areas;
- Removal of approximately 4,300 square feet of unused overwater structures;
- Elimination of existing vertical bulkheads and subsequent re-sloping of shorelines and inter-tidal areas in certain locations;
- Increase quality and quantity of intertidal and shallow sub-tidal habitat area resulting in new habitat structure, function and connectivity.

This work is described in greater detail in Chapter 2 of APPENDIX 1 of the JARPA as well as within Chapter 3 of the EDR.

The materials received and reviewed include:

- Cover letter and JARPA (10/31/2012) including APPENDIX 1 - Project Description and APPENDIX 2 - SEPA Fact Sheet and Figures 1-19;
- Other documents reviewed include the Pre-Remedial Design Investigation Report from August 2010;
- Preliminary Design Concept Report from August, 2012;
- Consent Decree (NO. 07-2-02257-7 as amended by Ecology, 2007a and 2011);
- Cleanup Action Plan; and
- Draft Engineering Design Report : Whatcom Waterway Cleanup in Phase 1 Site Areas (EDR) and Technical Appendices all dated November 2012; and
- February 11, 2013 Anchor QEA Memorandum

Local regulations that apply to this project are the City's 1989 Shoreline Master Program (SMP) and the Critical Areas Ordinance (BMC 16.55). Substantive compliance will be separated into two parts; required materials submittal information and code compliance.

Staff concludes that Phase 1, described in the materials specified above, comply with the substantive requirements in the City's 1989 Shoreline Master Program and Critical Areas Ordinance (BMC 16.55).

REQUIRED SUBMITTAL INFORMATION

The activities included in Phase 1 are within two critical area classifications; Fish and Wildlife Habitat Conservation Areas (FWHCAs) and Geologically Hazardous Areas.

Chapter BMC 16.55.210 includes baseline critical area reporting requirements. Additional technical information is required for activities within FWCA's as specified in BMC 16.55.480. (Required materials to be submitted for shoreline permits are specified in the City's Critical Area Ordinance.)

STAFF FINDING: Staff concludes that the information provided in your cover letter and JARPA (10/31/2012) including APPENDIX 1 - Project Description and APPENDIX 2 - SEPA Fact Sheet and Figures 1-19 as well as the Draft Engineering Design Report: Whatcom Waterway Cleanup in Phase 1 Site Areas (EDR) and Technical Appendices all dated November 2012 satisfy the submittal requirements in sections .210 and .480.

Specifically, the following sections within the EDR provide information required by BMC 16.55.480:

- **Chapter 3: Overview of Project Elements;**
- **Chapter 4: Net Environmental Effects; and**
- **Appendix D and Attachments 1 - 3: Prop-wash Evaluation**

The activities included in Phase 1 are also located within Geologically Hazardous Areas as specified in the City's Critical Areas Ordinance, Section BMC 16.55.420. Specifically, these are erosion hazard areas and in limited upland circumstances, seismic hazard areas.

STAFF FINDING: Staff concludes that the information provided in the Anchor QEA Memorandum dated February 11, 2013 as well as information within the Draft Engineering Design Report: Whatcom Waterway Cleanup in Phase 1 Site Areas and Technical Appendices all dated November 2012 includes

the information required in BMC 16.55.430 and .440 for activities in these types of Geologically Hazardous Areas.

Specifically, the following sections within the EDR provide information required by BMC 16.55.430 and .440:

- Chapter 2.5.2 and .4: Geotechnical Design Criteria and Coastal Engineering Design Criteria;
- Chapter 6: Dredging and Disposal Design for Inner waterway and Bellingham Shipping Terminal;
- Chapter 7: Waterway Engineered Capping Design;
- Chapter 8: South Shoreline Engineered Capping Design;
- Chapter 9: Central Waterfront Shoreline Source Control and Capping Design; and
- Chapter 10: Log Pond Contingency Action Design
- Appendix 2 : Site Geological Conditions
- Appendix 3: Coastal Evaluation

CODE COMPLIANCE

The City's 1989 Shoreline Master Program (SMP) applies to this project due to the submittal date of the materials requesting substantive compliance. Materials were submitted October 31, 2012.

Although the City's new 2013 SMP was approved by the Department of Ecology of February 4, 2013 it cannot be applied to this demonstration of substantive compliance. However, references to the 2013 SMP are provided to illustrate consistency where applicable.

Pursuant to Section 24 of the City's 1989 SMP, the action occurs within the Urban Maritime shoreline designation. However, the action is not a use per se but rather an 'activity' that is regulated by the Use Activity Regulations in Section 27.G., Dredging. The requirements for dredging as well as the **STAFF FINDINGS** for each requirement based upon the information provided and reviewed are as follows:

Use Activity Regulations in Section 27.G., Dredging

1. Maintenance dredging of navigable channels and established boat basins shall be permitted provided such dredging is done in a manner, which will minimize adverse effects on marine habitat.

STAFF FINDING: Existing conditions of bed-lands and shoreline edges are best described as "degraded." The cleanup action - as summarized above - and as described in detail in APPENDIX 1 of the JARPA - is expected to have a net benefit on marine habitat and function is therefore compliant with the 1989 SMP.

Removal of contaminated sediments from various locations in the Whatcom Waterway (WWW) and replacement with clean sand, gravel and cobble will improve habitat for benthic organisms such as copepods, bivalves and various shellfish and bottom fish. Removal of man-made debris and over water structure at the shoreline edge and within intertidal areas is expected to re-establish natural processes the key component in improving habitat structure and function. Reshaping of the shorelines above and below elevation of OHWM is expected to connect the Whatcom Creek Estuary to the waters and shorelines of Bellingham Bay. These areas are vitally important for a number of reasons

but most notable is the improvement to habitat where listed species have a primary association; Puget Sound Chinook and Steelhead. A net increase in shoreline ecological function is expected.

The details supporting this finding are provided in Section 2 of APPENDIX 1 of the JARPA (Project Description) as well as Section 3 (Net Environmental Effects) AND within Chapter 3 of the EDR.

2. Dredging shall be permitted which is essential to the establishment of appropriate shoreline development.

STAFF FINDING: The action is consistent with existing and future planned shoreline development. The action preserves areas for existing water-dependent uses at the Bellingham Shipping Terminal and for future and existing water-dependent and water-related uses along the northern shoreline of the WWW (within the Inner waterway) where current supporting marine infrastructure is already in place (moorage, crane/crane pad, haul out appurtenances, loading pier / ramps, landing and storage areas.)

More importantly, the action is consistent with two other key documents that the City anticipates will guide and manage *future* shoreline development, the City's 2013 SMP (BMC Title 22) and the Waterfront District Master Plan and supporting documents.

On February 4, 2013, the City received approval from the Department of Ecology on its updated SMP. The SMP was approved locally in 2009. Within that document, the shorelines where the Phase 1 activities take place are all designated "Waterfront District" (WD). The proposed action is consistent with the three sub-areas and their allowed uses in the WD designation which are "water-oriented," "shoreline mixed-use" and "recreational. "

The action included in Phase 1 maintains water-dependent and water-related uses and infrastructure in the 'water-oriented' sub area (Bellingham Shipping Terminal). It allows for a range of water-oriented uses as well as non-water-oriented uses along the north and south sides of the WWW (Inner Waterway). And finally, it is consistent with the allowed uses in the recreational sub-area (Log Pond) which are expected to be park, trail and other water-enjoyment uses.

In addition, the updated SMP includes a Restoration Plan which is a required element of all SMP's that are updated pursuant to the DOE Guidelines. (WAC 173-26) The Restoration Plan (APPENDIX B of the SMP) has three goals;

- Improve water quality;
- Re-establish and restore natural shoreline processes and restore degraded and lost habitat and wildlife corridors;
- Improve connectivity of the shoreline environments to one another and to adjacent habitat corridors and/or habitat blocks that support priority species and species of local significance.

Staff concludes that removal of contaminated sediment and in-water creosoted structures will improve water quality. Removal of derelict and dilapidated structures like pilings, bulkheads and wharves will re-establish natural shoreline processes. Reshaping shorelines into bona fide inter-tidal areas will re-establish and connect habitat corridors especially upstream to the Whatcom Creek Estuary where substantial habitat improvements have also been made as part of a cleanup action.

The SMP was part of the basis for establishing different use sub-areas prior within the Waterfront District Master Plan (MP) and supporting documents. The MP is about to begin review through the City's legislative process with final adoption expected by the end of 2013.

Essentially, the WDMP preserves the area within the "Shipping Terminal" sub-area for heavy industrial water-dependent / related activities. It provides opportunities for a variety of mixed uses along the "Downtown Waterfront" (GP West) sub-area. A variety of shoreline mixed uses are the focus of the "Marine Trades" (Inner Waterway) sub-area. Park areas and public access are intended in the "Log Pond" sub-area.

3. Dredging necessary to maintain the carrying capacity of stream ways shall be permitted provided such activity gains approval of the State of Washington Department of Fisheries and Department of Wildlife.

STAFF FINDING: On December 17, 2012, the activity described for Phase 1 received substantive compliance approval with conditions by the Washington State Department of Fish and Wildlife. Substantive compliance is required to be granted under WDFW's Hydraulic Code. (RCW 7755.021 and WAC 220-110) Other agencies reviewing for actual permits include United States Army Corps of Engineers, Department of Natural Resources, United States Fish and Wildlife / National Marine Fisheries Service, Department of Ecology's Water Quality Division.

4. Dredge spoils shall not be stockpiled or disposed on any shorelines of the City, provided dredge spoils may be disposed as landfill. Such landfill disposal shall meet the regulations pertaining to landfills contained herein.

STAFF FINDING: Dredge spoils are not intended to be permanently stockpiled or disposed on the shorelines of the City. It will be necessary to transfer dredge spoils from the barge / vessel conducting the dredging to immediately adjacent upland areas for trans-loading into trailer trucks or railcars for intermediate dewatering. The contractor will determine the safest and most efficient method of handling the material which could also include shipping the material via vessel to an off-site location for additional handling. All the material dredged from the action area is required to be transported to a Subtitle D landfill facility or a Department of Ecology approved equivalent facility.

Stormwater management BMP's for handling of materials on upland areas will be applied through approval of a Department of Ecology NPDES Permit and a 401 Water Quality Certification.

OTHER: The Public Works Department administers BMC 15.42, Stormwater Management. Based upon the materials provided stockpiling and staging areas are proposed as part of the Phase 1 activity. Details and specifics on these areas are not known as they likely will be developed by the contractor(s) chosen to perform elements of Phase 1. Appendices K and L do address BMP's and Water Quality.

It will be necessary for the contractor(s) to submit a site stormwater pollution prevention plan to the Public Works Stormwater Division for stockpiling and staging areas in order to be code compliant. Please contact Jason Porter at 778-7956 for details. Stormwater Permits are not required.

5. The applicant shall provide information from a qualified expert indicating that dredging activity will not affect water quality by the disruption of contaminated bottom sediments.

STAFF FINDING: Two engineers at Anchor QEA LLC were responsible for preparing the "Pre-Remedial Design Investigation Report" in August 2010. (PRDI)

In addition to this report and those listed at the beginning of these findings, other documents have been prepared by qualified experts and provided to Department of Ecology and agencies with jurisdiction including the City for review. These include but are not limited to:

- Bellingham Bay Demonstration Pilot Project Final Environmental Impact Statement and Comprehensive Strategy issued in October 2000.
- Final Supplemental Remedial Investigation/Feasibility Study for the Whatcom Waterway Site (RI/FS; RETEC 2006);
- Final Supplemental Environmental Impact Statement: Bellingham Bay Comprehensive Strategy, Whatcom Waterway Cleanup Site (FSEIS; Ecology 2007a);
- Exhibit B to the Consent Decree, Cleanup Action Plan for the Whatcom Waterway Site (CAP; Ecology 2007b).
- Draft Engineering Design Report : Whatcom Waterway Cleanup in Phase 1 Site Areas (EDR) and Technical Appendices all dated November 2012.

A new containment wall (partially exposed sheet pile 'bulkhead' at or above the elevation of the OHWM) is required as part of the Consent Decree along northern shoreline of the Central Waterfront sub-area between the barge ramp and the former Chevron property in order to keep upland contaminants separated from remediated bedlands and capping in the WWW.

Use Activity Regulations in Section 27.E., Bulkheads:

- E. BULKHEADS: The following regulations apply to the construction of bulkheads and seawalls and the placement of rip-rap.
1. Prior to the granting of a permit, the effect of the bulkhead on downstream or adjacent properties shall be determined by the Department of Planning and Economic Development and the disposition of the permit shall reflect such determination. The applicant for a permit to construct a bulkhead shall supply information as to the configuration of the shoreline and consistency of bank materials for properties within 300 feet in both directions from the proposed bulkhead.
 2. Construction of bulkheads for the indirect purpose of creating land by filling behind the bulkhead shall be prohibited unless such landfill is permitted by the Master Program.
 3. Bulkheads shall be prohibited which adversely affect public access to publicly owned shorelines.
 4. The surface of any bulkhead shall be kept free of protruding wires, cables, metal straps, etc. Broken concrete or asphalt, or scrap metal materials shall not be used on the surface of any bulkhead.
 5. The placement of rip-rap and other bank protection materials shall be done in conformance with Department of Fisheries and Department of Wildlife regulations.

6. The top of any bulkhead or rip-rap installation shall be no higher than the adjacent upland shoreline. Bulkhead materials shall not be placed landward so as to prevent the reestablishment of shoreline vegetation.
7. Bulk heading for the sole purpose of channelization or channel stabilization is prohibited.

STAFF FINDING: APPENDIX 1 of the Phase 1 - Whatcom Waterway Cleanup JARPA (Project Description) describes the existing conditions in the project area where the containment wall (bulkhead) is proposed and vicinity beginning in Section 2.3.1 on page 26. The cleanup objectives and the dredging and capping itself are described in 2.3.2 and 2.3.3. The bulkhead, in concert with the other proposed replacement and upgrades of marine infrastructure 'upstream' of the bulkhead are all designed to maintain upland water-oriented uses, maintain integrity of the remediation and resulting side slopes within the intertidal area.

The location of the new 'bulkhead' does not create additional dry land behind it - it is proposed to be landward of the existing wharf bulkhead. The bulkhead will not affect public access in this location because of the existing industrial uses in this location. WDFW has reviewed the entire proposal and has recommended BMP's for installation - as referenced in their December 17, 2012 letter to John Hergesheimer. The top of the new bulkhead will match existing upland grades and is comprised of sheet metal so the exposed surface is not dangerous. Finally, the bulkhead is at or above the elevation of the OHWM and hence is not necessary for channelization or channel stabilization.

OTHER EXEMPT ACTIVITY: Certain activities are not directly associated with the Cleanup Action for Phase 1. These are the demolition, removal and replacement of structures specified in Section 2.0 of APPENDIX 1 in the JARPA.

STAFF FINDING: Staff concludes that these actions are exempt from the requirement to obtain a shoreline permit pursuant to WAC 173-27-040(2)(b). Sheet piling placed water-ward of existing dilapidated bulkheads along portions of the northern shoreline of the WWW is for containment of groundwater and contaminated upland sediments. Replacement of existing mooring dolphins and pilings are necessary not only to facilitate cleanup of the waterway but also to preserve mooring function for existing and future water-dependent uses.

The restoration activities which have mostly to do with re-sloping inter-tidal areas and shoreline edge and upland areas are associated with the cleanup action. (I.e. the restoration that occurs is not stand-alone restoration but rather a net beneficial improvement of habitat structure and function by virtue of the removal of derelict structures and debris and removal of contaminated sediments followed by recapping with clean material.)

Nonetheless, WDFW has reviewed Phase I for substantive compliance with the hydraulic Code and have found that, as a result of the proposed cleanup, Phase 1 "significantly enhance and restore inter-tidal, shallow sub-tidal and sub-tidal habitats beneficial to the fish life in Bellingham Bay and in particular migrating juvenile salmonids." Therefore the City also finds that the 'restoration activity' is also exempt pursuant to WAC 173-27-040(2)(p). Finally, the resulting restoration is also consistent with the City's Restoration Plan as specified above.

The City's Critical Area Ordinance includes Performance Standards and General Requirements for activities within Fish and Wildlife Habitat Conservation Areas (BMC 16.55.490) and Performance

Standards for Specific Habitats (BMC 16.55.500). The overall objective is that any activity shall not result in a net loss of ecological function.

Fish and Wildlife Habitat Conservation Areas: 16.55.490 - Performance Standards - General Requirements

A. Non-indigenous Species. No plant, wildlife, or fish species not indigenous to the region shall be introduced into a habitat conservation area unless authorized by a state or federal permit or approval.

B. Mitigation and Contiguous Corridors. Mitigation sites shall be located to preserve or achieve contiguous wildlife habitat corridors in accordance with a mitigation plan that is part of an approved critical area report to minimize the isolating effects of development on habitat areas, so long as mitigation of aquatic habitat is located within the same aquatic ecosystem as the area disturbed.

C. Approval of Activities. The Director shall condition approvals of activities allowed within or adjacent to a habitat conservation area or its buffers, as necessary to minimize or mitigate any potential adverse impacts. Conditions shall be based on the best available science and may include, but are not limited to, the following:

1. Establishment of buffer zones;
2. Preservation of critically important vegetation and/or habitat features such as snags and downed wood;
3. Limitation of access to the habitat area, including fencing to deter unauthorized access;
4. Seasonal restriction of construction activities;
5. Establishment of a duration and timetable for periodic review of mitigation activities; and
6. Requirement of a performance bond, when necessary, to ensure completion and success of proposed mitigation.

D. Mitigation and Equivalent or Greater Biological Functions. Mitigation of alterations to habitat conservation areas shall achieve equivalent or greater biologic and hydrologic functions and shall include mitigation for adverse impacts upstream or downstream of the development proposal site. Mitigation shall address each function affected by the alteration to achieve functional equivalency or improvement on a per function basis.

E. Approvals and the Best Available Science. Any approval of alterations or impacts to a habitat conservation area shall be supported by the best available science.

F. Buffers.

1. **Establishment of Buffers.** The Director shall require the establishment of buffer areas for activities adjacent to habitat conservation areas when needed to protect habitat conservation areas. Buffers shall consist of an undisturbed area of native vegetation or areas identified for restoration established to protect the integrity, functions, and values of the affected habitat. Required buffer widths shall reflect the sensitivity of the habitat and the type and intensity of human activity proposed to be conducted nearby.

2. **Seasonal Restrictions.** When a species is more susceptible to adverse impacts during specific periods of the year, seasonal restrictions may apply. Larger buffers may be required and activities may be further restricted during the specified season.
3. **Habitat Buffer Averaging.** The Director may allow the recommended habitat area buffer width to be reduced in accordance with a critical area report and the best available science only if:
 - a. It will not reduce stream or habitat functions;
 - b. It will not adversely affect salmonid habitat;
 - c. It will provide additional natural resource protection, such as buffer enhancement; and
 - d. The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer.
4. All land and shoreline uses, development, occupancy, and critical area resource management of any kind shall comply with the provisions of the City of Bellingham Shoreline Master Program (SMP). The SMP shall establish all permitted uses adjacent to, and critical area buffers and setbacks from, the ordinary high water mark of marine waters and Lake Whatcom and Lake Padden.

Fish and Wildlife Habitat Conservation Areas: 16.55.500 - Performance Standards - Specific Habitats

A. Endangered, Threatened, and Sensitive Species.

1. No development shall be allowed within a habitat conservation area or buffer with which state or federally endangered, threatened, or sensitive species have a primary association, except that which is provided for by a management plan established by the Washington Department of Fish and Wildlife or applicable state or federal agency.
2. Whenever activities are proposed adjacent to a habitat conservation area with which state or federally endangered, threatened, or sensitive species have a primary association, such area shall be protected through the application of protection measures in accordance with a critical area report prepared by a qualified professional and approved by the City. Approval for alteration of land adjacent to the habitat conservation area or its buffer shall not occur prior to consultation with the Washington Department of Fish and Wildlife for animal species, the Washington State Department of Natural Resources for plant species, and other appropriate federal or state agencies.
3. Bald eagle habitat shall be protected pursuant to the Washington State Bald Eagle Protection Rules (WAC 232-12-292). Whenever activities are proposed adjacent to a verified nest territory or communal roost, a habitat management plan shall be developed by a qualified professional. Activities are adjacent to bald eagle sites when they are within 800 feet or within one half mile (2,640 feet) and in a shoreline foraging area. The City shall verify the location of eagle management areas for each proposed activity. Approval of the activity shall not occur prior to approval of the habitat management plan by the Washington Department of Fish and Wildlife.

B. Anadromous Fish.

1. All activities, uses, and alterations proposed to be located in water bodies used by anadromous fish or in areas that affect such water bodies shall give special consideration to the preservation and enhancement of anadromous fish habitat, including, but not limited to, adhering to the following standards:
 - a. Activities shall be timed to occur only during the allowable work window as designated by the Washington Department of Fish and Wildlife for the applicable species;
 - b. An alternative alignment or location for the activity is not feasible;
 - c. The activity is designed so that it will not degrade the functions or values of the fish habitat or other Critical Areas;
 - d. Shoreline erosion control measures shall be designed to use bioengineering methods or soft armoring techniques, according to an approved critical area report; and
 - e. Any impacts to the functions or values of the habitat conservation area are mitigated in accordance with an approved critical area report.
2. Structures that prevent the migration of salmonids shall not be allowed in the portion of water bodies currently or historically used by anadromous fish. Fish bypass facilities shall be provided that allow the upstream migration of adult fish and shall prevent fry and juveniles migrating downstream from being trapped or harmed.
3. Fills, when authorized by the Shoreline Master Program, shall not adversely impact anadromous fish or their habitat or shall mitigate any unavoidable impacts and shall only be allowed for a water-dependent use.

STAFF FINDING: Phase 1 is not 'development' but rather a clean-up action as delineated by the Model Toxics Control Act (MTCA). The activity associated with Phase 1 does occur in habitat conservation areas where listed species have a primary association. Most notably, these are the Puget Sound Chinook Salmon, Steelhead Salmon and Bull Trout, Puget Sound Boccacio, Canary and Yelloweye Rockfish. Other listed species are specified in Table 1 of the JARPA. WDFW has issued its substantive compliance with conditions. Other agencies have been involved in review of the EDR; Department of Natural Resources, United States Army Corps of Engineers and the US Fish and Wildlife Service as well as the Department of Ecology.

Based upon the information that was submitted (Specifically, Section 8c of the JARPA and Chapter 4 of the EDR) and as specified above, staff concludes that mitigation is not required.

In fact, implementation of Phase 1 IS a mitigation activity. Presently, the site and activity areas in Phase 1 are severely degraded. Phase 1 proposes to remove dilapidated and deteriorating structures located in-water and at the shoreline edge. Removal of dilapidated structure facilitates improved salmonid use and migration.

Phase 1 removes contaminated sediments from aquatic bedlands and inter-tidal zones. Removal of contaminated sediments improves the health of aquatic vegetation, benthic organisms and bottom-

dwelling species which are all important food sources for a variety of species - especially those that are 'listed.'

Finally, as a result of shoreline shaping and re-sloping, the Phase 1 activity restores and re-establishes natural shoreline processes where currently they do not exist. RE-establishing natural shoreline processes creates habitat structure which in turn introduces and improves habitat function.

Seasonal restrictions for in-water work have been placed by the Washington State Department of Fish and Wildlife (WDFW) pursuant to their December 17, 2012 letter to the Port of Bellingham. (Substantive Compliance with conditions.)

Allowed uses, buffers and setbacks will be assigned for future development proposals consistent with the City's 2013 SMP. (BMC Title 22)

Finally, Phase 1 is also consistent with City's Restoration Plan, Appendix B of the 2013 SMP. Specifically, Phase 1 is consistent with the three priority goals of the Restoration Plan which are;

- Improve water quality;
- Re-establish and restore natural shoreline processes, restore degraded and lost habitat, and wildlife corridors; and
- Improve connectivity of the shoreline environments to one another and to adjacent habitat corridors and/or habitat blocks that support priority species and species of local significance.

Geologically Hazardous Areas: 16.55.450 - Performance Standards - General Requirements

A. Alterations of geologically hazardous areas or associated buffers may only occur for activities that:

1. Will not increase the threat of the geological hazard to adjacent properties beyond pre-development conditions;
2. Will not adversely impact other Critical Areas;
3. Are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than pre-development conditions; and
4. Are certified as safe as designed and under anticipated conditions by a qualified engineer or geologist, licensed in the state of Washington.

16.55.460 - Performance Standards - Specific Hazards

A. **Erosion and Landslide Hazard Areas.** Activities on sites containing erosion or landslide hazards shall meet the standards of *Performance Standards – General Requirements* [Section 16.55.490] and the specific following requirements:

1. **Buffer Requirement.** A buffer shall be established from all edges of landslide hazard areas. The size of the buffer shall be determined by the Director to eliminate or minimize the risk of property damage, death, or injury resulting from landslides caused in whole or part by the development, based upon review of and concurrence with a Critical Area report prepared by a qualified professional.
 - a. **Minimum Buffer.** The minimum buffer shall be equal to the height of the slope or 50 feet, whichever is greater.

may be allowed pursuant to an approved forest practice permit issued by the City or the Washington State Department of Natural Resources.

5. Utility Lines and Pipes. Utility lines and pipes shall be permitted in erosion and landslide hazard areas only when the applicant demonstrates that no other practical alternative is available. The line or pipe shall be located above ground and properly anchored and/or designed so that it will continue to function in the event of an underlying slide. Stormwater conveyance shall be allowed only through a high-density polyethylene pipe with fuse-welded joints, or similar product that is technically equal or superior.

6. Point Discharges. Point discharges from surface water facilities and roof drains onto or upstream from an erosion or landslide hazard area shall be prohibited except as follows:

- a. Conveyed via continuous storm pipe downslope to a point where there are no erosion hazards areas downstream from the discharge;
- b. Discharged at flow durations matching pre-developed conditions, with adequate energy dissipation, into existing channels that previously conveyed stormwater run-off in the pre-developed state; or
- c. Dispersed discharge upslope of the steep slope onto a low-gradient undisturbed buffer demonstrated to be adequate to infiltrate all surface and stormwater run-off, and where it can be demonstrated that such discharge will not increase the saturation of the slope.

7. Subdivisions. The division of land in landslide hazard areas and associated buffers is subject to the following:

- a. Land that is located wholly within a landslide hazard area or its buffer may not be subdivided. Land that is located partially within a landslide hazard area or its buffer may be divided provided that each resulting lot has sufficient buildable area outside of, and will not affect, the landslide hazard or its buffer.
- b. Access roads and utilities may be permitted within the landslide hazard area and associated buffers if the City determines that no other feasible alternative exists.

8. Prohibited Development. On-site sewage disposal systems, including drain fields, shall be prohibited within erosion and landslide hazard areas and related buffers.

B. Seismic Hazard Areas. Activities proposed to be located in seismic hazard areas shall meet the standards of *Performance Standards – General Requirements* [Section 16.55.490].

STAFF FINDING: Staff concludes that based upon the information specified in the documents specified below, the activities associated with Phase 1 comply with the applicable sections from BMC 16.55.450 and .460 above:

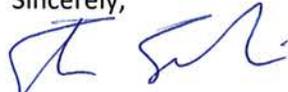
- Chapter 2.5.2 and .4: Geotechnical Design Criteria and Coastal Engineering Design Criteria;
- Chapter 6: Dredging and Disposal Design for Inner waterway and Bellingham Shipping Terminal;
- Chapter 7: Waterway Engineered Capping Design;
- Chapter 8: South Shoreline Engineered Capping Design;

- Chapter 9: Central Waterfront Shoreline Source Control and Capping Design; and
- Chapter 10: Log Pond Contingency Action Design
- Appendix 2 : Site Geological Conditions
- Appendix 3: Coastal Evaluation

STAFF FINDING SUMMARY: Based on the STAFF FINDINGS provided in this document, staff concludes that activities associated with Phase 1 of the Whatcom Waterway Cleanup described in the documents submitted by the consultants and reviewed by this department are compliant with the substantive requirements in the City's 1989 Shoreline Master Program and Critical Areas Ordinance (BMC 16.55).

If you have additional questions please contact me at 360-778-8359 or email: ssundin@cob.org

Sincerely,



Steven Sundin
Planning Department

- C Lucy McInerney, DOE, NW Regional Office
Amy Kraham, Assistant City Attorney
Derek Koellmann, Anchor QEA, Bellingham Office

From: [Inouye, Laura \(ECY\)](#)
To: [Derek Koellmann](#)
Subject: CZM question
Date: Thursday, May 16, 2013 8:32:26 AM

Derek,

Loree' says that CZM for a NWP 38 is only needed if Ecology decides a 401 is required... so you do not need to worry about it for the Whatcom project.

Laura



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

April 16, 2015

John Hergesheimer
Port of Bellingham
PO Box 1677
Bellingham, WA 98227-1677

RE: Coverage under the Construction Stormwater General Permit

Permit number: WAR302834
Site Name: Whatcom Waterway Cleanup in Phase 1 Area
Location: Former GP-West Site (300 W Laurel St)
Bellingham County: Whatcom
Disturbed Acres: 1.25

Dear Mr. Hergesheimer:

The Washington State Department of Ecology (Ecology) received your Notice of Intent for coverage under Ecology's Construction Stormwater General Permit (permit). This is your permit coverage letter. Your permit coverage is effective on April 16, 2015. **Please retain this permit coverage letter with your permit (enclosed), stormwater pollution prevention plan (SWPPP), and site log book. These materials are the official record of permit coverage for your site.**

Please take time to read the entire permit and contact Ecology if you have any questions.

Appeal Process

You have a right to appeal coverage under the general permit to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this letter. This appeal is limited to the general permit's applicability or non-applicability to a specific discharger. The appeal process is governed by chapter 43.21B RCW and chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

John Hergesheimer
April 16, 2015
Page 2

To appeal, you must do the following within 30 days of the date of receipt of this letter:

- File your appeal and a copy of the permit cover page with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and the permit cover page on Ecology in paper form - by mail or in person (see addresses below). E-mail is not accepted.

You must also comply with other applicable requirements in chapter 43.21B RCW and chapter 371-08 WAC.

Address and Location Information:

Street Addresses:

Department of Ecology
Attn: Appeals Processing Desk
300 Desmond Drive SE
Lacey, WA 98503

Mailing Addresses:

Department of Ecology
Attn: Appeals Processing Desk
PO Box 47608
Olympia, WA 98504-7608

Pollution Control Hearings Board (PCHB)
1111 Israel Road SW, Suite 301
Tumwater, WA 98501

Pollution Control Hearings Board
PO Box 40903
Olympia, WA 98504-0903

Electronic Discharge Monitoring Reports (WQWebDMR)

This permit requires that Permittees submit monthly discharge monitoring reports (DMRs) electronically using Ecology's secure online system, WQWebDMR. To sign up for WQWebDMR go to: www.ecy.wa.gov/programs/wq/permits/paris/webdmr.html. If you have questions, contact the portal staff at (360) 407-7097 (Olympia area), or (800) 633-6193/option 3, or email WQWebPortal@ecy.wa.gov.

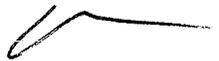
Ecology Field Inspector Assistance

If you have questions regarding stormwater management at your construction site, please contact Stephanie Barney of Ecology's Bellingham Field Office at stephanie.barney@ecy.wa.gov, or (360) 715-5233.

Questions or Additional Information

Ecology is committed to providing assistance. Please review our web page at: www.ecy.wa.gov/programs/wq/stormwater/construction/. If you have questions about the construction stormwater general permit, please contact Shawn Hopkins at shawn.hopkins@ecy.wa.gov, or (360) 407-6442.

Sincerely,



Bill Moore, P.E., Manager
Program Development Services Section
Water Quality Program

Enclosure

Construction Stormwater Site Inspection Form

Project Name _____ Permit # _____ Inspection Date _____ Time _____

Name of Certified Erosion Sediment Control Lead (CESCL) or qualified inspector if *less than one acre*
 Print Name: _____

Approximate rainfall amount since the last inspection (in inches): _____

Approximate rainfall amount in the last 24 hours (in inches): _____

Current Weather Clear Cloudy Mist Rain Wind Fog

A. Type of inspection: Weekly Post Storm Event Other

B. Phase of Active Construction (*check all that apply*):

Pre Construction/installation of erosion/sediment controls	<input type="checkbox"/>	Clearing/Demo/Grading	<input type="checkbox"/>	Infrastructure/storm/roads	<input type="checkbox"/>
Concrete pours	<input type="checkbox"/>	Vertical Construction/buildings	<input type="checkbox"/>	Utilities	<input type="checkbox"/>
Offsite improvements	<input type="checkbox"/>	Site temporary stabilized	<input type="checkbox"/>	Final stabilization	<input type="checkbox"/>

C. Questions:

- | | | | |
|--|-----|----|-------|
| 1. Were all areas of construction and discharge points inspected? | Yes | No | _____ |
| 2. Did you observe the presence of suspended sediment, turbidity, discoloration, or oil sheen | Yes | No | _____ |
| 3. Was a water quality sample taken during inspection? (<i>refer to permit conditions S4 & S5</i>) | Yes | No | _____ |
| 4. Was there a turbid discharge 250 NTU or greater, or Transparency 6 cm or less?* | Yes | No | _____ |
| 5. If yes to #4 was it reported to Ecology? | Yes | No | _____ |
| 6. Is pH sampling required? pH range required is 6.5 to 8.5. | Yes | No | _____ |

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.

*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results: _____ Date: _____

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	pH	
Turbidity	tube, meter, laboratory				
pH	Paper, kit, meter				

Construction Stormwater Site Inspection Form

D. Check the observed status of all items. Provide "Action Required" details and dates.

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
1 Clearing Limits	Before beginning land disturbing activities are all clearing limits, natural resource areas (streams, wetlands, buffers, trees) protected with barriers or similar BMPs? (high visibility recommended)						
2 Construction Access	Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads?						
	Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.						
3 Control Flow Rates	Are flow control measures installed to control stormwater volumes and velocity during construction and do they protect downstream properties and waterways from erosion?						
	If permanent infiltration ponds are used for flow control during construction, are they protected from siltation?						
4 Sediment Controls	All perimeter sediment controls (e.g. silt fence, wattles, compost socks, berms, etc.) installed, and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP).						
	Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading.						
	Stormwater runoff from disturbed areas is directed to sediment removal BMP.						
5 Stabilize Soils	Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?						

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
5 Stabilize Soils Cont.	Are stockpiles stabilized from erosion, protected with sediment trapping measures and located away from drain inlet, waterways, and drainage channels?						
	Have soils been stabilized at the end of the shift, before a holiday or weekend if needed based on the weather forecast?						
6 Protect Slopes	Has stormwater and ground water been diverted away from slopes and disturbed areas with interceptor dikes, pipes and or swales?						
	Is off-site storm water managed separately from stormwater generated on the site?						
	Is excavated material placed on uphill side of trenches consistent with safety and space considerations?						
	Have check dams been placed at regular intervals within constructed channels that are cut down a slope?						
7 Drain Inlets	Storm drain inlets made operable during construction are protected.						
	Are existing storm drains within the influence of the project protected?						
8 Stabilize Channel and Outlets	Have all on-site conveyance channels been designed, constructed and stabilized to prevent erosion from expected peak flows?						
	Is stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes and downstream conveyance systems?						
9 Control Pollutants	Are waste materials and demolition debris handled and disposed of to prevent contamination of stormwater?						
	Has cover been provided for all chemicals, liquid products, petroleum products, and other material?						
	Has secondary containment been provided capable of containing 110% of the volume?						
	Were contaminated surfaces cleaned immediately after a spill incident?						
	Were BMPs used to prevent contamination of stormwater by a pH modifying sources?						

Construction Stormwater Site Inspection Form

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required (describe in section F)
		yes	no	n/a			
9 Cont.	Wheel wash wastewater is handled and disposed of properly.						
10 Control Dewatering	Concrete washout in designated areas. No washout or excess concrete on the ground.						
	Dewatering has been done to an approved source and in compliance with the SWPPP.						
	Were there any clean non turbid dewatering discharges?						
11 Maintain BMP	Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?						
12 Manage the Project	Has the project been phased to the maximum degree practicable?						
	Has regular inspection, monitoring and maintenance been performed as required by the permit?						
	Has the SWPPP been updated, implemented and records maintained?						

E. Check all areas that have been inspected. ✓

All in place BMPs All disturbed soils All concrete wash out area All material storage areas
 All discharge locations All equipment storage areas All construction entrances/exits

F. Elements checked "Action Required" (section D) describe corrective action to be taken. List the element number; be specific on location and work needed. Document, initial, and date when the corrective action has been completed and inspected.

Element #	Description and Location	Action Required	Completion Date	Initials

Attach additional page if needed

Sign the following certification:

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print) _____ (Signature) _____ Date: _____

Title/Qualification of Inspector: _____

Whatcom Waterway Cleanup in Phase 1 Area

WAR302834

4-16-2015

Issuance Date: December 1, 2010

Effective Date: January 1, 2011

Expiration Date: December 31, 2015

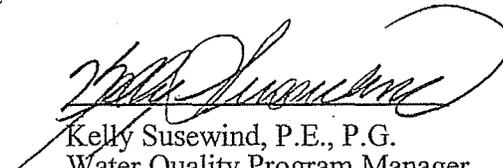
CONSTRUCTION STORMWATER GENERAL PERMIT

National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge General
Permit for Stormwater Discharges Associated with Construction Activity

State of Washington
Department of Ecology
Olympia, Washington 98504

In compliance with the provisions of
Chapter 90.48 Revised Code of Washington
(State of Washington Water Pollution Control Act)
and
Title 33 United States Code, Section 1251 et seq.
The Federal Water Pollution Control Act (The Clean Water Act)

Until this permit expires, is modified or revoked, Permittees that have properly obtained
coverage under this general permit are authorized to discharge in accordance with the special and
general conditions that follow.



Kelly Susewind, P.E., P.G.
Water Quality Program Manager
Washington State Department of Ecology

TABLE OF CONTENTS

LIST OF TABLES	3
SPECIAL CONDITIONS	5
S1. PERMIT COVERAGE	5
S2. APPLICATION REQUIREMENTS	8
S3. COMPLIANCE WITH STANDARDS	11
S4. MONITORING REQUIREMENTS	12
S5. REPORTING AND RECORDKEEPING REQUIREMENTS	19
S6. PERMIT FEES.....	22
S7. SOLID AND LIQUID WASTE DISPOSAL	22
S8. DISCHARGES TO 303(D) OR TMDL WATER BODIES	22
S9. STORMWATER POLLUTION PREVENTION PLAN.....	26
S10. NOTICE OF TERMINATION	34
GENERAL CONDITIONS	36
G1. DISCHARGE VIOLATIONS	36
G2. SIGNATORY REQUIREMENTS.....	36
G3. RIGHT OF INSPECTION AND ENTRY.....	37
G4. GENERAL PERMIT MODIFICATION AND REVOCATION	37
G5. REVOCATION OF COVERAGE UNDER THE PERMIT	37
G6. REPORTING A CAUSE FOR MODIFICATION	38
G7. COMPLIANCE WITH OTHER LAWS AND STATUTES.....	38
G8. DUTY TO REAPPLY	38
G9. TRANSFER OF GENERAL PERMIT COVERAGE.....	39
G10. REMOVED SUBSTANCES	39
G11. DUTY TO PROVIDE INFORMATION.....	39
G12. OTHER REQUIREMENTS OF 40 CFR.....	39
G13. ADDITIONAL MONITORING	39
G14. PENALTIES FOR VIOLATING PERMIT CONDITIONS	40
G15. UPSET	40

G16. PROPERTY RIGHTS.....	40
G17. DUTY TO COMPLY	40
G18. TOXIC POLLUTANTS.....	41
G19. PENALTIES FOR TAMPERING	41
G20. REPORTING PLANNED CHANGES	41
G21. REPORTING OTHER INFORMATION.....	42
G22. REPORTING ANTICIPATED NON-COMPLIANCE.....	42
G23. REQUESTS TO BE EXCLUDED FROM COVERAGE UNDER THE PERMIT	42
G24. APPEALS	42
G25. SEVERABILITY	43
G26. BYPASS PROHIBITED.....	43
APPENDIX A – DEFINITIONS	46
APPENDIX B – ACRONYMS	54

LIST OF TABLES

Table 1. Summary of Permit Report Submittals	4
Table 2. Summary of Required On-site Documentation.....	4
Table 3. Summary of Primary Monitoring Requirements	12
Table 4. Monitoring and Reporting Requirements	16
Table 5. Turbidity, Fine Sediment & Phosphorus Sampling and Limits for 303(d)-Listed ...	24
Table 6. pH Sampling and Limits for 303(d)-Listed Waters	24

SUMMARY OF PERMIT REPORT SUBMITTALS

Refer to the Special and General Conditions within this permit for additional submittal requirements. Appendix A provides a list of definitions. Appendix B provides a list of acronyms.

Table 1. Summary of Permit Report Submittals

Permit Section	Submittal	Frequency	First Submittal Date
S5.A and S8	High Turbidity/Transparency Phone Reporting	As Necessary	Within 24 hours
S5.B	Discharge Monitoring Report	Monthly*	Within 15 days of applicable monitoring period
S5.F and S8	Noncompliance Notification	As necessary	Immediately
S5.F	Noncompliance Notification – Written Report	As necessary	Within 5 Days of non-compliance
G2.	Notice of Change in Authorization	As necessary	
G6.	Permit Application for Substantive Changes to the Discharge	As necessary	
G8.	Application for Permit Renewal	1/permit cycle	No later than 180 days before expiration
G9.	Notice of Permit Transfer	As necessary	
G20.	Notice of Planned Changes	As necessary	
G22.	Reporting Anticipated Non-compliance	As necessary	

SPECIAL NOTE: *Permittees must submit Discharge Monitoring Reports (DMRs) to the Washington State Department of Ecology monthly, regardless of site discharge, for the full duration of permit coverage. Refer to Section S5.B of this General Permit for more specific information regarding DMRs.

Table 2. Summary of Required On-site Documentation

Document Title	Permit Conditions
Permit Coverage Letter	See Conditions S2, S5
Construction Stormwater General Permit	See Conditions S2, S5
Site Log Book	See Conditions S4, S5
Stormwater Pollution Prevention Plan (SWPPP)	See Conditions S9, S5

SPECIAL CONDITIONS

S1. PERMIT COVERAGE

A. Permit Area

This Construction Stormwater General Permit (CSWGP) covers all areas of Washington State, except for federal and Tribal lands as specified in Special Condition S1.E.3.

B. Operators Required to Seek Coverage Under this General Permit:

1. Operators of the following construction activities are required to seek coverage under this CSWGP:
 - a. Clearing, grading and/or excavation that results in the disturbance of one or more acres and discharges stormwater to surface waters of the State; and clearing, grading and/or excavation on sites smaller than one acre that are part of a larger common plan of development or sale, if the common plan of development or sale will ultimately disturb one acre or more and discharge stormwater to surface waters of the State.
 - i. This includes forest practices (including, but not limited to, class IV conversions) that are part of a construction activity that will result in the disturbance of one or more acres, and discharge to surface waters of the State (that is, forest practices that prepare a site for construction activities); and
 - b. Any size construction activity discharging stormwater to waters of the State that the Department of Ecology ("Ecology"):
 - i. Determines to be a significant contributor of pollutants to waters of the State of Washington.
 - ii. Reasonably expects to cause a violation of any water quality standard.
2. Operators of the following activities are not required to seek coverage under this CSWGP (unless specifically required under Special Condition S1.B.1.b. above):
 - a. Construction activities that discharge all stormwater and non-stormwater to ground water, sanitary sewer, or combined sewer, and have no point source discharge to either surface water or a storm sewer system that drains to surface waters of the State.
 - b. Construction activities covered under an Erosivity Waiver (Special Condition S2.C).
 - c. Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

C. Authorized Discharges:

1. Stormwater Associated with Construction Activity. Subject to compliance with the terms and conditions of this permit, Permittees are authorized to discharge stormwater associated with construction activity to surface waters of the State or to a storm sewer system that drains to surface waters of the State. (Note that "surface waters of the State" may exist on a construction site as well as off site; for example, a creek running through a site.)
2. Stormwater Associated with Construction Support Activity. This permit also authorizes stormwater discharge from support activities related to the permitted construction site (for example, an on-site portable rock crusher, off-site equipment staging yards, material storage areas, borrow areas, etc.) provided:
 - a. The support activity relates directly to the permitted construction site that is required to have a NPDES permit; and
 - b. The support activity is not a commercial operation serving multiple unrelated construction projects, and does not operate beyond the completion of the construction activity; and
 - c. Appropriate controls and measures are identified in the Stormwater Pollution Prevention Plan (SWPPP) for the discharges from the support activity areas.
3. Non-Stormwater Discharges. The categories and sources of non-stormwater discharges identified below are authorized conditionally, provided the discharge is consistent with the terms and conditions of this permit:
 - a. Discharges from fire-fighting activities.
 - b. Fire hydrant system flushing.
 - c. Potable water, including uncontaminated water line flushing.
 - d. Pipeline hydrostatic test water.
 - e. Uncontaminated air conditioning or compressor condensate.
 - f. Uncontaminated ground water or spring water.
 - g. Uncontaminated excavation dewatering water (in accordance with S9.D.10).
 - h. Uncontaminated discharges from foundation or footing drains.
 - i. Water used to control dust. Permittees must minimize the amount of dust control water used.
 - j. Routine external building wash down that does not use detergents.
 - k. Landscape irrigation water.

The SWPPP must adequately address all authorized non-stormwater discharges, except for discharges from fire-fighting activities, and must comply with Special

Condition S3. At a minimum, discharges from potable water (including water line flushing), fire hydrant system flushing, and pipeline hydrostatic test water must undergo the following: dechlorination to a concentration of 0.1 parts per million (ppm) or less, and pH adjustment to within 6.5 - 8.5 standard units (su), if necessary.

D. Prohibited Discharges:

The following discharges to waters of the State, including ground water, are prohibited.

1. Concrete wastewater.
2. Wastewater from washout and clean-up of stucco, paint, form release oils, curing compounds and other construction materials.
3. Process wastewater as defined by 40 Code of Federal Regulations (CFR) 122.1 (see Appendix A of this permit).
4. Slurry materials and waste from shaft drilling.
5. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance.
6. Soaps or solvents used in vehicle and equipment washing.
7. Wheel wash wastewater, unless discharged according to Special Condition S9.D.9.d.
8. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, unless managed according to Special Condition S9.D.10.

E. Limits on Coverage

Ecology may require any discharger to apply for and obtain coverage under an individual permit or another more specific general permit. Such alternative coverage will be required when Ecology determines that this CSWGP does not provide adequate assurance that water quality will be protected, or there is a reasonable potential for the project to cause or contribute to a violation of water quality standards.

The following stormwater discharges are not covered by this permit:

1. Post-construction stormwater discharges that originate from the site after completion of construction activities and the site has undergone final stabilization.
2. Non-point source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and maintenance, from which there is natural runoff as excluded in 40 CFR Subpart 122.
3. Stormwater from any federal project or project on federal land or land within an Indian Reservation except for the Puyallup Reservation. Within the Puyallup

Reservation, any project that discharges to surface water on land held in trust by the federal government may be covered by this permit.

4. Stormwater from any site covered under an existing NPDES individual permit in which stormwater management and/or treatment requirements are included for all stormwater discharges associated with construction activity.
5. Stormwater from a site where an applicable Total Maximum Daily Load (TMDL) requirement specifically precludes or prohibits discharges from construction activity.

S2. APPLICATION REQUIREMENTS

A. Permit Application Forms

1. Notice of Intent Form/Timeline

- a. Operators of new or previously unpermitted construction activities must submit a complete and accurate permit application (Notice of Intent, or NOI) to Ecology.
- b. The operator must submit the NOI at least 60 days before discharging stormwater from construction activities and must submit it on or before the date of the first public notice (see Special Condition S2.B below for details). The 30-day public comment period required by WAC 173-226-130(5) begins on the publication date of the second public notice. Unless Ecology responds to the complete application in writing, based on public comments, or any other relevant factors, coverage under the general permit will automatically commence on the thirtieth day following receipt by Ecology of a completed NOI, or the issuance date of this permit, whichever is later, unless Ecology specifies a later date in writing.
- c. Applicants who propose to discharge to a storm or sewer system operated by Seattle, King County, Snohomish County, Tacoma, Pierce County, or Clark County must also submit a copy of the NOI to the appropriate jurisdiction.
- d. If an applicant intends to use a Best Management Practice (BMP) selected on the basis of Special Condition S9.C.4 ("demonstrably equivalent" BMPs), the applicant must notify Ecology of its selection as part of the NOL. In the event the applicant selects BMPs after submission of the NOI, it must provide notice of the selection of an equivalent BMP to Ecology at least 60 days before intended use of the equivalent BMP.
- e. Permittees must notify Ecology regarding any changes to the information provided on the NOI by submitting an updated NOL. Examples of such changes include, but are not limited to,
 - i. changes to the Permittee's mailing address,
 - ii. changes to the on-site contact person information, and

iii. changes to the area/acreage affected by construction activity.

2. Transfer of Coverage Form

The Permittee can transfer current coverage under this permit to one or more new operators, including operators of sites within a Common Plan of Development, provided the Permittee submits a Transfer of Coverage Form in accordance with General Condition G9. Transfers do not require public notice.

B. Public Notice

For new or previously unpermitted construction activities, the applicant must publish a public notice at least one time each week for two consecutive weeks, at least 7 days apart, in a newspaper with general circulation in the county where the construction is to take place. The notice must contain:

1. A statement that "The applicant is seeking coverage under the Washington State Department of Ecology's Construction Stormwater NPDES and State Waste Discharge General Permit."
2. The name, address and location of the construction site.
3. The name and address of the applicant.
4. The type of construction activity that will result in a discharge (for example, residential construction, commercial construction, etc.), and the number of acres to be disturbed.
5. The name of the receiving water(s) (that is, the surface water(s) to which the site will discharge), or, if the discharge is through a storm sewer system, the name of the operator of the system.
6. The statement: "Any persons desiring to present their views to the Washington State Department of Ecology regarding this application, or interested in Ecology's action on this application, may notify Ecology in writing no later than 30 days of the last date of publication of this notice. Ecology reviews public comments and considers whether discharges from this project would cause a measurable change in receiving water quality, and, if so, whether the project is necessary and in the overriding public interest according to Tier II antidegradation requirements under WAC 173-201A-320. Comments can be submitted to: Department of Ecology, P.O. Box 47696, Olympia, WA 98504-7696 Attn: Water Quality Program, Construction Stormwater."

C. Erosivity Waiver

Construction site operators may qualify for an erosivity waiver from the CSWGP if the following conditions are met:

1. The site will result in the disturbance of fewer than 5 acres and the site is not a portion of a common plan of development or sale that will disturb 5 acres or greater.
2. Calculation of Erosivity "R" Factor and Regional Timeframe:
 - a. The project's rainfall erosivity factor ("R" Factor) must be less than 5 during the period of construction activity, as calculated using either the Texas A&M University online rainfall erosivity calculator at: <http://ei.tamu.edu/> or EPA's calculator at <http://cfpub.epa.gov/npdes/stonnwater/lew/lewcalculator.cfm>. The period of construction activity starts when the land is first disturbed and ends with final stabilization. In addition:
 - b. The entire period of construction activity must fall within the following timeframes:
 - i. For sites west of the Cascades Crest: June 15 - September 15.
 - ii. For sites east of the Cascades Crest, excluding the Central Basin: June 15 - October 15.
 - iii. For sites east of the Cascades Crest, within the Central Basin: no additional timeframe restrictions apply. The Central Basin is defined as the portions of Eastern Washington with mean annual precipitation of less than 12 inches. For a map of the Central Basin (Region 2), refer to <http://www.ecy.wa.gov/pubs/ecy070202.pdf>.
3. Construction site operators must submit a complete Erosivity Waiver certification form at least one week before disturbing the land. Certification must include statements that the operator will:
 - a. Comply with applicable local stormwater requirements; and
 - b. Implement appropriate erosion and sediment control BMPs to prevent violations of water quality standards.
4. This waiver is not available for facilities declared significant contributors of pollutants as defined in Special Condition S1.B.1.b.
5. This waiver does not apply to construction activities which include non-stormwater discharges listed in Special Condition S1.C.3.
6. If construction activity extends beyond the certified waiver period for any reason, the operator must either:
 - a. Recalculate the rainfall erosivity "R" factor using the original start date and a new projected ending date and, if the "R" factor is still under 5 and the entire

project falls within the applicable regional timeframe in Special Condition S2.C.2.b, complete and submit an amended waiver certification form before the original waiver expires; or

- b. Submit a complete permit application to Ecology in accordance with Special Condition S2.A and B before the end of the certified waiver period.

S3. COMPLIANCE WITH STANDARDS

- A. Discharges must not cause or contribute to a violation of surface water quality standards (Chapter 173-201A WAC), ground water quality standards (Chapter 173-200 WAC), sediment management standards (Chapter 173-204 WAC), and human health-based criteria in the National Toxics Rule (40 CFR Part 131.36). Discharges not in compliance with these standards are not authorized.
- B. Prior to the discharge of stormwater and non-stormwater to waters of the State, the Permittee must apply all known, available, and reasonable methods of prevention, control, and treatment (AKART). This includes the preparation and implementation of an adequate Stormwater Pollution Prevention Plan (SWPPP), with all appropriate BMPs installed and maintained in accordance with the SWPPP and the terms and conditions of this permit.
- C. Ecology presumes that a Permittee complies with water quality standards unless discharge monitoring data or other site-specific information demonstrates that a discharge causes or contributes to a violation of water quality standards, when the Permittee complies with the following conditions. The Permittee must fully:
 1. Comply with all permit conditions, including planning, sampling, monitoring, reporting, and recordkeeping conditions.
 2. Implement stormwater BMPs contained in stormwater management manuals published or approved by Ecology, or BMPs that are demonstrably equivalent to BMPs contained in stormwater technical manuals published or approved by Ecology, including the proper selection, implementation, and maintenance of all applicable and appropriate BMPs for on-site pollution control. (For purposes of this section, the stormwater manuals listed in Appendix 10 of the Phase I Municipal Stormwater Permit are approved by Ecology.)
- D. Where construction sites also discharge to ground water, the ground water discharges must also meet the terms and conditions of this CSWGP. Permittees who discharge to ground water through an injection well must also comply with any applicable requirements of the Underground Injection Control (UIC) regulations, Chapter 173-218 WAC.

S4. MONITORING REQUIREMENTS, BENCHMARKS AND REPORTING TRIGGERS

Table 3. Summary of Primary Monitoring Requirements

Size of Soil Disturbance ¹	Weekly Site Inspections	Weekly Sampling w/ Turbidity Meter	Weekly Sampling w/ Transparency Tube	Weekly pH Sampling ²	Requires CESCL Certification?
Sites that disturb less than 1 acre, but are part of a larger Common Plan of Development	Required	Not Required	Not Required	Not Required	No
Sites that disturb 1 acre or more, but fewer than 5 acres	Required	Sampling Required – either method ³		Required	Yes
Sites that disturb 5 acres or more	Required	Required	Not Required ⁴	Required	Yes

A. Site Log Book

The Permittee must maintain a site log book that contains a record of the implementation of the SWPPP and other permit requirements, including the installation and maintenance of BMPs, site inspections, and stormwater monitoring.

B. Site Inspections

The Permittee's (operator's) site inspections must include all areas disturbed by construction activities, all BMPs, and all stormwater discharge points. (See Special Conditions S4.B.3 and B.4 below for detailed requirements of the Permittee's Certified Erosion and Sediment Control Lead [CESCL]).

¹ Soil disturbance is calculated by adding together all areas affected by construction activity. Construction activity means clearing, grading, excavation, and any other activity that disturbs the surface of the land, including ingress/egress from the site.

² If construction activity results in the disturbance of 1 acre or more, and involves significant concrete work (1,000 cubic yards of poured or recycled concrete over the life of a project) or the use of engineered soils (soil amendments including but not limited to Portland cement-treated base [CTB], cement kiln dust [CKD], or fly ash), and stormwater from the affected area drains to surface waters of the State or to a storm sewer stormwater collection system that drains to other surface waters of the State, the Permittee must conduct pH monitoring sampling in accordance with Special Condition S4.D.

³ Sites with one or more acres, but fewer than 5 acres of soil disturbance, must conduct turbidity or transparency sampling in accordance with Special Condition S4.C.

⁴ Sites equal to or greater than 5 acres of soil disturbance must conduct turbidity sampling using a turbidity meter in accordance with Special Condition S4.C.

Construction sites one acre or larger that discharge stormwater to surface waters of the State must have site inspections conducted by a certified CESCL. Sites less than one acre may have a person without CESCL certification conduct inspections; sampling is not required on sites that disturb less than an acre.

1. The Permittee must examine stormwater visually for the presence of suspended sediment, turbidity, discoloration, and oil sheen. The Permittee must evaluate the effectiveness of BMPs and determine if it is necessary to install, maintain, or repair BMPs to improve the quality of stormwater discharges.

Based on the results of the inspection, the Permittee must correct the problems identified by:

- a. Reviewing the SWPPP for compliance with Special Condition S9 and making appropriate revisions within 7 days of the inspection.
 - b. Immediately beginning the process of fully implementing and maintaining appropriate source control and/or treatment BMPs as soon as possible, addressing the problems no later than within 10 days of the inspection. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when an extension is requested by a Permittee within the initial 10-day response period.
 - c. Documenting BMP implementation and maintenance in the site log book.
2. The Permittee must inspect all areas disturbed by construction activities, all BMPs, and all stormwater discharge points at least once every calendar week and within 24 hours of any discharge from the site. (For purposes of this condition, individual discharge events that last more than one day do not require daily inspections. For example, if a stormwater pond discharges continuously over the course of a week, only one inspection is required that week.) The Permittee may reduce the inspection frequency for temporarily stabilized, inactive sites to once every calendar month.
 3. The Permittee must have staff knowledgeable in the principles and practices of erosion and sediment control. The CESCL (sites one acre or more) or inspector (sites less than one acre) must have the skills to assess the:
 - a. Site conditions and construction activities that could impact the quality of stormwater, and
 - b. Effectiveness of erosion and sediment control measures used to control the quality of stormwater discharges.
 4. The SWPPP must identify the CESCL or inspector, who must be present on site or on-call at all times. The CESCL must obtain this certification through an approved erosion and sediment control training program that meets the minimum training standards established by Ecology (see BMP C160 in the manual referred to in Special Condition S9.C.1 and 2).

5. The Permittee must summarize the results of each inspection in an inspection report or checklist and enter the report/checklist into, or attach it to, the site log book. At a minimum, each inspection report or checklist must include:
 - a. Inspection date and time.
 - b. Weather information, the general conditions during inspection and the approximate amount of precipitation since the last inspection, and precipitation within the last 24 hours.
 - c. A summary or list of all implemented BMPs, including observations of all erosion/sediment control structures or practices.
 - d. A description of the locations:
 - i. Of BMPs inspected.
 - ii. Of BMPs that need maintenance and why.
 - iii. Of BMPs that failed to operate as designed or intended, and
 - iv. Where additional or different BMPs are needed, and why.
 - e. A description of stormwater discharged from the site. The Permittee must note the presence of suspended sediment, turbidity, discoloration, and oil sheen, as applicable.
 - f. Any water quality monitoring performed during inspection.
 - g. General comments and notes, including a brief description of any BMP repairs, maintenance or installations made following the inspection.
 - h. A summary report and a schedule of implementation of the remedial actions that the Permittee plans to take if the site inspection indicates that the site is out of compliance. The remedial actions taken must meet the requirements of the SWPPP and the permit.
 - i. The name, title, and signature of the person conducting the site inspection, a phone number or other reliable method to reach this person, and the following statement: "I certify that this report is true, accurate, and complete to the best of my knowledge and belief."

C. Turbidity/Transparency Sampling Requirements

1. Sampling Methods
 - a. If construction activity involves the disturbance of 5 acres or more, the Permittee must conduct turbidity sampling per Special Condition S4.C.
 - b. If construction activity involves 1 acre or more but fewer than 5 acres of soil disturbance, the Permittee must conduct either transparency sampling **or** turbidity sampling per Special Condition S4.C.

2. Sampling Frequency

- a. The Permittee must sample all discharge locations at least once every calendar week when stormwater (or authorized non-stormwater) discharges from the site or enters any on-site surface waters of the state (for example, a creek running through a site).
- b. Samples must be representative of the flow and characteristics of the discharge.
- c. Sampling is not required when there is no discharge during a calendar week.
- d. Sampling is not required outside of normal working hours or during unsafe conditions.
- e. If the Permittee is unable to sample during a monitoring period, the Permittee must include a brief explanation in the monthly Discharge Monitoring Report (DMR).
- f. Sampling is not required before construction activity begins.

3. Sampling Locations

- a. Sampling is required at all points where stormwater associated with construction activity (or authorized non-stormwater) is discharged off site, including where it enters any on-site surface waters of the state (for example, a creek running through a site).
- b. The Permittee may discontinue sampling at discharge points that drain areas of the project that are fully stabilized to prevent erosion.
- c. The Permittee must identify all sampling point(s) on the SWPPP site map and clearly mark these points in the field with a flag, tape, stake or other visible marker.
- d. Sampling is not required for discharge that is sent directly to sanitary or combined sewer systems.

4. Sampling and Analysis Methods

- a. The Permittee performs turbidity analysis with a calibrated turbidity meter (turbidimeter) either on site or at an accredited lab. The Permittee must record the results in the site log book in nephelometric turbidity units (NTU).
- b. The Permittee performs transparency analysis on site with a 1¼-inch-diameter, 60-centimeter (cm)-long transparency tube. The Permittee will record the results in the site log book in centimeters (cm). Transparency tubes are available from: <http://watermonitoringguip.com/pages/stream.html>.

Table 4. Monitoring and Reporting Requirements

Parameter	Unit	Analytical Method	Sampling Frequency	Benchmark Value	Phone Reporting Trigger Value
Turbidity	NTU	SM2130 or EPA 180.1	Weekly, if discharging	25 NTU	250 NTU
Transparency	cm	Manufacturer instructions, or Ecology guidance	Weekly, if discharging	33 cm	6cm

5. Turbidity/Transparency Benchmark Values and Reporting Triggers

The benchmark value for turbidity is 25 NTU or less. The benchmark value for transparency is 33 centimeters (cm). Note: Benchmark values do not apply to discharges to segments of water bodies on Washington State's 303(d) list (Category 5) for turbidity, fine sediment, or phosphorus; these discharges are subject to a numeric effluent limit for turbidity. Refer to Special Condition S8 for more information.

a. Turbidity 26 - 249 NTU, or Transparency 32 - 7 cm.

If the discharge turbidity is 26 to 249 NTU; or if discharge transparency is less than 33 cm, but equal to or greater than 6 cm, the Permittee must:

- i. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within 7 days of the date the discharge exceeded the benchmark.
- ii. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible, addressing the problems within 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period.
- iii. Document BMP implementation and maintenance in the site log book.

b. Turbidity 250 NTU or greater, or Transparency 6 cm or less:

If a discharge point's turbidity is 250 NTU or greater, or if discharge transparency is less than or equal to 6 cm, the Permittee must complete the reporting and adaptive management process described below.

- i. Telephone the applicable Ecology Region's Environmental Report Tracking System (ERTS) number within 24 hours, in accordance with Special Condition S5.F.
 - Central Region (Okanogan, Chelan, Douglas, Kittitas, Yakima, Klickitat, Benton): (509) 575-2490

- Eastern Region (Adams, Asotin, Columbia, FelTy, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman): (509) 329-3400
- NoIihwest Region (Kitsap, Snohomish, Island, King, San Juan, Skagit, Whatcom): (425) 649-7000
- Southwest Region (Grays Harbor, Lewis, Mason, Thurston, Pierce, Clark, Cowlitz, Skamania, Wahkiakum, Clallam, Jefferson, Pacific): (360) 407-6300

These numbers are also listed at the following web site:

http://www.ecy.wa.gov/pro_grams/wq/sto1111water/constructi on/penni t.htm1

- ii. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within 7 days of the date the discharge exceeded the benchmark.
- iii. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible, addressing the problems within 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period.
- iv. Document BMP implementation and maintenance in the site log book.
- v. Continue to sample discharges daily until:
 - a) Turbidity is 25 NTU (or lower); or
 - b) Transparency is 33 cm (or greater); or
 - c) The Permittee has demonstrated compliance with the water quality limit for turbidity:
 - 1) No more than 5 NTU over background turbidity, if background is less than 50 NTU, or
 - 2) No more than 10% over background turbidity, if background is 50 NTU or greater; or
 - d) The discharge stops or is eliminated.

D. pH Sampling Requirements – Significant Concrete Work or Engineered Soils

If construction activity results in the disturbance of 1 acre or more, **and** involves significant concrete work (significant concrete work means greater than 1000 cubic yards poured concrete or recycled concrete used over the life of a project) or the use of engineered soils (soil amendments including but not limited to Portland cement-treated base [CTB], cement kiln dust [CKD], or fly ash), and stormwater from the affected area

drains to surface waters of the State or to a storm sewer system that drains to surface waters of the state, the Permittee must conduct pH monitoring as set forth below. Note: In addition, discharges to segments of water bodies on Washington State's 303(d) list (Category 5) for high pH are subject to a numeric effluent limit for pH; refer to Special Condition S8.

1. For sites with significant concrete work, the Permittee must begin the pH monitoring period when the concrete is first poured and exposed to precipitation, and continue weekly throughout and after the concrete pour and curing period, until stormwater pH is in the range of 6.5 to 8.5 (su).
2. For sites with engineered soils, the Permittee must begin the pH monitoring period when the soil amendments are first exposed to precipitation and must continue until the area of engineered soils is fully stabilized.
3. During the applicable pH monitoring period defined above, the Permittee must obtain a representative sample of stormwater and conduct pH analysis at least once per week.
4. The Permittee must monitor pH in the sediment trap/pond(s) or other locations that receive stormwater runoff from the area of significant concrete work or engineered soils before the stormwater discharges to surface waters.
5. The benchmark value for pH is 8.5 standard units. Anytime sampling indicates that pH is 8.5 or greater, the Permittee must either:
 - a. Prevent the high pH water (8.5 or above) from entering storm sewer systems or surface waters; or
 - b. If necessary, adjust or neutralize the high pH water until it is in the range of pH 6.5 to 8.5 (su) using an appropriate treatment BMP such as carbon dioxide (CO₂) sparging or dry ice. The Permittee must obtain written approval from Ecology before using any form of chemical treatment other than CO₂ sparging or dry ice.
6. The Permittee must perform pH analysis on site with a calibrated pH meter, pH test kit, or wide range pH indicator paper. The Permittee must record pH monitoring results in the site log book.

S5. REPORTING AND RECORDKEEPING REQUIREMENTS

A. High Turbidity Phone Reporting

Anytime sampling performed in accordance with Special Condition S4.C indicates turbidity has reached the 250 NTU phone reporting level, the Permittee must call Ecology's Regional office by phone within 24 hours of analysis. The web site is <http://www.ecy.wa.gov/programs/wq/stormwater/construction/permit.html>. Also see phone numbers in Special Condition S4.C.5.b.i.

B. Discharge Monitoring Reports

Permittees required to conduct water quality sampling in accordance with Special Conditions S4.C (Turbidity/Transparency), S4.D (pH), S8 (303[d]/TMDL sampling), and/or G13 (Additional Sampling) must submit the results to Ecology.

Permittees must submit monitoring data using Ecology's WebDMR program. To find out more information and to sign up for WebDMR go to:

<http://www.ecy.wa.gov/programs/wq/permits/paris/webdmr.html>.

Permittees unable to submit electronically (for example, those who do not have an internet connection) must contact Ecology to request a waiver and obtain instructions on how to obtain a paper copy DMR at:

Mailing Address:

Department of Ecology

Water Quality Program

Attn: Stormwater Compliance Specialist

PO Box 47696

Olympia, WA 98504-7696

Permittees who obtain a waiver not to use WebDMR must use the forms provided to them by Ecology; submittals must be mailed to the address above. Permittees shall submit DMR forms to be received by Ecology within 15 days following the end of each month.

If there was no discharge during a given monitoring period, all Permittees must submit a DMR as required with "no discharge" entered in place of the monitoring results. For more information, contact Ecology staff using information provided at the following web site: <http://www.ecy.wa.gov/programs/spills/response/assistancesoil%20map.pdf>

C. Records Retention

The Permittee must retain records of all monitoring information (site log book, sampling results, inspection reports/checklists, etc.), Stormwater Pollution Prevention Plan, and any other documentation of compliance with permit requirements for the entire life of the construction project and for a minimum of three years following the termination of permit coverage. Such information must include all calibration and maintenance records, and records of all data used to complete the application for this

permit. This period of retention must be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

D. Recording Results

For each measurement or sample taken, the Permittee must record the following information:

1. Date, place, method, and time of sampling or measurement.
2. The first and last name of the individual who performed the sampling or measurement.
3. The date(s) the analyses were performed.
4. The first and last name of the individual who performed the analyses.
5. The analytical techniques or methods used.
6. The results of all analyses.

E. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by this permit using test procedures specified by Special Condition S4 of this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Permittee's DMR.

F. Noncompliance Notification

In the event the Permittee is unable to comply with any part of the terms and conditions of this permit, and the resulting noncompliance may cause a threat to human health or the environment, the Permittee must:

1. Immediately notify Ecology of the failure to comply by calling the applicable Regional office ERTS phone number (find at <http://www.ecy.wa.gov/programs/spills/response/assistancesoil%20map.pdf>) or refer to Special Condition S4.C.5.b.i.
2. Immediately take action to prevent the discharge/pollution, or otherwise stop or correct the noncompliance, and, if applicable, repeat sampling and analysis of any noncompliance immediately and submit the results to Ecology within five (5) days of becoming aware of the violation.
3. Submit a detailed written report to Ecology within five (5) days, unless requested earlier by Ecology. The report must contain a description of the noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

The Permittee must report any unanticipated bypass and/or upset that exceeds any effluent limit in the permit in accordance with the 24-hour reporting requirement contained in 40 C.F.R. 122.41(1)(6)).

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply. Refer to Section G 14 of this permit for specific information regarding non-compliance.

G. Access to Plans and Records

1. The Permittee must retain the following permit documentation (plans and records) on site, or within reasonable access to the site, for use by the operator or for on-site review by Ecology or the local jurisdiction:
 - a. General Permit.
 - b. Permit Coverage Letter.
 - c. Stormwater Pollution Prevention Plan (SWPPP).
 - d. Site Log Book.
2. The Permittee must address written requests for plans and records listed above (Special Condition S5.G.1) as follows:

- a. The Permittee must provide a copy of plans and records to Ecology within 14 days of receipt of a written request from Ecology.
- b. The Permittee must provide a copy of plans and records to the public when requested in writing. Upon receiving a written request from the public for the Permittee's plans and records, the Permittee must either:
 1. Provide a copy of the plans and records to the requester within 14 days of a receipt of the written request; or
 - II. Notify the requester within 10 days of receipt of the written request of the location and times within normal business hours when the plans and records may be viewed; and provide access to the plans and records within 14 days of receipt of the written request; or

Within 14 days of receipt of the written request, the Permittee may submit a copy of the plans and records to Ecology for viewing and/or copying by the requester at an Ecology office, or a mutually agreed location. If plans and records are viewed and/or copied at a location other than at an Ecology office, the Permittee will provide reasonable access to copying services for which a reasonable fee may be charged. The Permittee must notify the requester within 10 days of receipt of the request where the plans and records may be viewed and/or copied.

S6. PERMIT FEES

The Permittee must pay permit fees assessed by Ecology. Fees for stormwater discharges covered under this permit are established by Chapter 173-224 WAC. Ecology continues to assess permit fees until the permit is terminated in accordance with Special Condition S10 or revoked in accordance with General Condition G5.

S7. SOLID AND LIQUID WASTE DISPOSAL

The Permittee must handle and dispose of solid and liquid wastes generated by construction activity, such as demolition debris, construction materials, contaminated materials, and waste materials from maintenance activities, including liquids and solids from cleaning catch basins and other stormwater facilities, in accordance with:

- A. Special Condition S3, Compliance with Standards.
- B. WAC 173-216-110.
- C. Other applicable regulations.

S8. DISCHARGES TO 303(D) OR TMDL WATER BODIES

A. Sampling and Numeric Effluent Limits For Certain Discharges to 303(d)-listed Water Bodies

- 1. Permittees who discharge to segments of water bodies listed as impaired by the State of Washington under Section 303(d) of the Clean Water Act for turbidity, fine sediment, high pH, or phosphorus, must conduct water quality sampling according to the requirements of this section, and Special Conditions S4.C.2.b-f and S4.C.3.b-d, and must comply with the applicable numeric effluent limitations in S8.C and S8.D.
- 2. All references and requirements associated with Section 303(d) of the Clean Water Act mean the most current listing by Ecology of impaired waters (Category 5) that exists on January 1, 2011, or the date when the operator's complete permit application is received by Ecology, whichever is later.

B. Limits on Coverage for New Discharges to TMDL or 303(d)-listed Waters

Operators of construction sites that discharge to a 303(d)-listed water body are not eligible for coverage under this permit *unless* the operator:

- 1. Prevents exposing stormwater to pollutants for which the water body is impaired, and retains documentation in the SWPPP that details procedures taken to prevent exposure on site; or
- 2. Documents that the pollutants for which the water body is impaired are not present at the site, and retains documentation of this finding within the SWPPP; or

3. Provides Ecology with data indicating the discharge is not expected to cause or contribute to an exceedance of a water quality standard, and retains such data on site with the SWPPP. The operator must provide data and other technical information to Ecology that sufficiently demonstrate:
 - a. For discharges to waters without an EPA-approved or -established TMDL, that the discharge of the pollutant for which the water is impaired will meet in-stream water quality criteria at the point of discharge to the water body; or
 - b. For discharges to waters with an EPA-approved or -established TMDL, that there is sufficient remaining wasteload allocation in the TMDL to allow construction stormwater discharge and that existing dischargers to the water body are subject to compliance schedules designed to bring the water body into attainment with water quality standards.

Operators of construction sites are eligible for coverage under this permit if Ecology issues permit coverage based upon an affirmative determination that the discharge will not cause or contribute to the existing impairment.

C. Sampling and Numeric Effluent Limits for Discharges to Water Bodies on the 303(d) List for Turbidity, Fine Sediment, or Phosphorus

1. Permittees who discharge to segments of water bodies on the 303(d) list (Category 5) for turbidity, fine sediment, or phosphorus must conduct turbidity sampling in accordance with Special Condition S4.C.2 and comply with either of the numeric effluent limits noted in Table 5 below.
2. As an alternative to the 25 NTU effluent limit noted in Table 5 below (applied at the point where stormwater [or authorized non-stormwater] is discharged off-site), permittees may choose to comply with the surface water quality standard for turbidity. The standard is: no more than 5 NTU over background turbidity when the background turbidity is 50 NTU or less, or no more than a 10% increase in turbidity when the background turbidity is more than 50 NTU. In order to use the water quality standard requirement, the sampling must take place at the following locations:
 - a. Background turbidity in the 303(d)-listed receiving water immediately upstream (upgradient) or outside the area of influence of the discharge.
 - b. Turbidity at the point of discharge into the 303(d)-listed receiving water, inside the area of influence of the discharge.
3. Discharges that exceed the numeric effluent limit for turbidity constitute a violation of this permit.
4. Permittees whose discharges exceed the numeric effluent limit shall sample discharges daily until the violation is corrected and comply with the non-compliance notification requirements in Special Condition S5.F.

Table 5. Turbidity, Fine Sediment & Phosphorus Sampling and Limits for 303(d)-Listed Waters

Parameter identified in 303(d) listing	Parameter Sampled	Unit	Analytical Method	Sampling Frequency	Numeric Effluent Limit ¹
<ul style="list-style-type: none"> • Turbidity • Fine Sediment • Phosphorus 	Turbidity	NTU	SM2130 or EPA180.1	Weekly, if discharging	25 NTU, at the point where stormwater is discharged from the site; OR In compliance with the surface water quality standard for turbidity (S8.C.1.a)

¹Permittees subject to a numeric effluent limit for turbidity may, at their discretion, choose either numeric effluent limitation based on site-specific considerations including, but not limited to, safety, access and convenience.

D. Discharges to Water Bodies on the 303(d) List for High pH

1. Permittees who discharge to segments of water bodies on the 303(d) list (Category 5) for high pH must conduct pH sampling in accordance with the table below, and comply with the numeric effluent limit of pH 6.5 to 8.5 su (Table 6).

Table 6. pH Sampling and Limits for 303(d)-Listed Waters

Parameter identified in 303(d) listing	Parameter Sampled/Units	Analytical Method	Sampling Frequency	Numeric Effluent Limit
High pH	pH /Standard Units	pH meter	Weekly, if discharging	In the range of 6.5 - 8.5

2. At the Permittee's discretion, compliance with the limit shall be assessed at one of the following locations:
 - a. Directly in the 303(d)-listed water body segment, inside the immediate area of influence of the discharge; or
 - b. Alternatively, the permittee may measure pH at the point where the discharge leaves the construction site, rather than in the receiving water.
3. Discharges that exceed the numeric effluent limit for pH (outside the range of 6.5 - 8.5 su) constitute a violation of this permit.
4. Permittees whose discharges exceed the numeric effluent limit shall sample discharges daily until the violation is corrected and comply with the non-compliance notification requirements in Special Condition S5.F.

E. Sampling and Limits for Sites Discharging to Waters Covered by a TMDL or Another Pollution Control Plan

1. Discharges to a water body that is subject to a Total Maximum Daily Load (TMDL) for turbidity, fine sediment, high pH, or phosphorus must be consistent with the TMDL. Refer to <http://www.ecy.wa.gov/programs/wq/tmdl/index.html> for more information on TMDLs.
 - a. Where an applicable TMDL sets specific waste load allocations or requirements for discharges covered by this permit, discharges must be consistent with any specific waste load allocations or requirements established by the applicable TMDL.
 - i. The Permittee must sample discharges weekly or as otherwise specified by the TMDL to evaluate compliance with the specific waste load allocations or requirements.
 - ii. Analytical methods used to meet the monitoring requirements must conform to the latest revision of the Guidelines Establishing Test Procedures for the Analysis of Pollutants contained in 40 CFR Part 136. Turbidity and pH methods need not be accredited or registered unless conducted at a laboratory which must otherwise be accredited or registered.
 - b. Where an applicable TMDL has established a general waste load allocation for construction stormwater discharges, but has not identified specific requirements, compliance with Special Conditions S4 (Monitoring) and S9 (SWPPPs) will constitute compliance with the approved TMDL.
 - c. Where an applicable TMDL has not specified a waste load allocation for construction stormwater discharges, but has not excluded these discharges, compliance with Special Conditions S4 (Monitoring) and S9 (SWPPPs) will constitute compliance with the approved TMDL.
 - d. Where an applicable TMDL specifically precludes or prohibits discharges from construction activity, the operator is not eligible for coverage under this permit.
2. Applicable TMDL means a TMDL for turbidity, fine sediment, high pH, or phosphorus that is completed and approved by EPA before January 1, 2011, or before the date the operator's complete permit application is received by Ecology, whichever is later. TMDLs completed after the operator's complete permit application is received by Ecology become applicable to the Permittee only if they are imposed through an administrative order by Ecology, or through a modification of permit coverage.

S9. STORMWATER POLLUTION PREVENTION PLAN

The Permittee must prepare and properly implement an adequate Stormwater Pollution Prevention Plan (SWPPP) for construction activity in accordance with the requirements of this permit beginning with initial soil disturbance and until final stabilization.

A. The Permittee's SWPPP must meet the following objectives:

1. To implement best management practices (BMPs) to prevent erosion and sedimentation, and to identify, reduce, eliminate or prevent stormwater contamination and water pollution from construction activity.
2. To prevent violations of surface water quality, ground water quality, or sediment management standards.
3. To control peak volumetric flow rates and velocities of stormwater discharges.

B. General Requirements

1. The SWPPP must include a narrative and drawings. All BMPs must be clearly referenced in the narrative and marked on the drawings. The SWPPP narrative must include documentation to explain and justify the pollution prevention decisions made for the project. Documentation must include:
 - a. Information about existing site conditions (topography, drainage, soils, vegetation, etc.).
 - b. Potential erosion problem areas.
 - c. The 12 elements of a SWPPP in Special Condition S9.D.1-12, including BMPs used to address each element.
 - d. Construction phasing/sequence and general BMP implementation schedule.
 - e. The actions to be taken if BMP performance goals are not achieved—for example, a contingency plan for additional treatment and/or storage of stormwater that would violate the water quality standards if discharged.
 - f. Engineering calculations for ponds and any other designed structures.
2. The Permittee must modify the SWPPP if, during inspections or investigations conducted by the owner/operator, or the applicable local or state regulatory authority, it is determined that the SWPPP is, or would be, ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site. The Permittee must then:
 - a. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within 7 days of the inspection or investigation.
 - b. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible, addressing the problems no later than 10 days from the inspection or investigation. If

installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when an extension is requested by a Permittee within the initial 10-day response period,

- c. Document BMP implementation and maintenance in the site log book.

The Permittee must modify the SWPPP whenever there is a change in design, construction, operation, or maintenance at the construction site that has, or could have, a significant effect on the discharge of pollutants to waters of the State.

C. Stonnwater Best Management Practices (BMPs)

BMPs must be consistent with:

1. Stormwater Management Manual for Western Washington (most recent edition), for sites west of the crest of the Cascade Mountains; or
2. Stormwater Management Manual for Eastern Washington (most recent edition), for sites east of the crest of the Cascade Mountains; or
3. Revisions to the manuals listed in Special Condition S9.C.1. & 2., or other stonnwater management guidance documents or manuals which provide an equivalent level of pollution prevention, that are approved by Ecology and incorporated into this permit in accordance with the permit modification requirements of WAC 173-226-230; or
4. Documentation in the SWPPP that the BMPs selected provide an equivalent level of pollution prevention, compared to the applicable Stormwater Management Manuals, including:
 - a. The technical basis for the selection of all stormwater BMPs (scientific, technical studies, and/or modeling) that support the performance claims for the BMPs being selected.
 - b. An assessment of how the selected BMP will satisfy AKART requirements and the applicable federal technology-based treatment requirements under 40 CFR part 125.3.

D. SWPPP- Nanative Contents and Requirements

The Permittee must include each of the 12 elements below in Special Condition S9.D.1-12 in the nanative of the SWPPP and implement them unless site conditions render the element unnecessary and the exemption from that element is clearly justified in the SWPPP.

1. Preserve Vegetation/Mark Clearing Limits
 - a. Before beginning land-disturbing activities, including clearing and grading, clearly mark all clearing limits, sensitive areas and their buffers, and trees that are to be preserved within the construction area.

- b. Retain the duff layer, native top soil, and natural vegetation in an undisturbed state to the maximum degree practicable.
2. Establish Construction Access
- a. Limit construction vehicle access and exit to one route, if possible.
 - b. Stabilize access points with a pad of quarry spalls, crushed rock, or other equivalent BMPs, to minimize tracking sediment onto roads.
 - c. Locate wheel wash or tire baths on site, if the stabilized construction entrance is not effective in preventing tracking sediment onto roads.
 - d. If sediment is tracked off site, clean the affected roadway thoroughly at the end of each day, or more frequently as necessary (for example, during wet weather). Remove sediment from roads by shoveling, sweeping, or pickup and transport of the sediment to a controlled sediment disposal area.
 - e. Conduct street washing only after sediment removal in accordance with Special Condition S9.D.2.d. Control street wash wastewater by pumping back on site or otherwise preventing it from discharging into systems tributary to waters of the State.
3. Control Flow Rates
- a. Protect properties and waterways downstream of development sites from erosion and the associated discharge of turbid waters due to increases in the velocity and peak volumetric flow rate of stormwater runoff from the project site, as required by local plan approval authority.
 - b. Where necessary to comply with Special Condition S9.D.3.a, construct stormwater retention or detention facilities as one of the first steps in grading. Assure that detention facilities function properly before constructing site improvements (for example, impervious surfaces).
 - c. If permanent infiltration ponds are used for flow control during construction, protect these facilities from siltation during the construction phase.
4. Install Sediment Controls

The Permittee must design, install and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, the Permittee must design, install and maintain such controls to:

- a. Construct sediment control BMPs (sediment ponds, traps, filters, etc.) as one of the first steps in grading. These BMPs must be functional before other land disturbing activities take place.
- b. Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of

resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site.

- c. Direct stormwater runoff from disturbed areas through a sediment pond or other appropriate sediment removal BMP, before the runoff leaves a construction site or before discharge to an infiltration facility. Runoff from fully stabilized areas may be discharged without a sediment removal BMP, but must meet the flow control performance standard of Special Condition S9.D.3.a.
- d. Locate BMPs intended to trap sediment on site in a manner to avoid interference with the movement of juvenile salmonids attempting to enter off-channel areas or drainages.
- e. Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible.
- f. Where feasible, design outlet structures that withdraw impounded stormwater from the surface to avoid discharging sediment that is still suspended lower in the water column.

5. Stabilize Soils

- a. The Permittee must stabilize exposed and unworked soils by application of effective BMPs that prevent erosion. Applicable BMPs include, but are not limited to: temporary and permanent seeding, sodding, mulching, plastic covering, erosion control fabrics and matting, soil application of polyacrylamide (PAM), the early application of gravel base on areas to be paved, and dust control.
- b. The Permittee must control stormwater volume and velocity within the site to minimize soil erosion.
- c. The Permittee must control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion.
- d. Depending on the geographic location of the project, the Permittee must not allow soils to remain exposed and unworked for more than the time periods set forth below to prevent erosion:

West of the Cascade Mountains Crest
During the dry season (May 1 - Sept. 30): 7 days
During the wet season (October 1 - April 30): 2 days

East of the Cascade Mountains Crest, except for Central Basin*
During the dry season (July 1 - September 30): 10 days
During the wet season (October 1 - June 30): 5 days

The Central Basin*, East of the Cascade Mountains Crest

During the dry Season (July 1 - September 30): 30 days
During the wet season (October 1 - June 30): 15 days

*Note: The Central Basin is defined as the portions of Eastern Washington with mean annual precipitation of less than 12 inches.

- e. The Permittee must stabilize soils at the end of the shift before a holiday or weekend if needed based on the weather forecast.
 - f. The Permittee must stabilize soil stockpiles from erosion, protected with sediment trapping measures, and where possible, be located away from storm drain inlets, waterways, and drainage channels.
 - g. The Permittee must minimize the amount of soil exposed during construction activity.
 - h. The Permittee must minimize the disturbance of steep slopes.
 - l. The Permittee must minimize soil compaction and, unless infeasible, preserve topsoil.
6. Protect Slopes
- a. The Permittee must design and construct cut-and-fill slopes in a manner to minimize erosion. Applicable practices include, but are not limited to, reducing continuous length of slope with terracing and diversions, reducing slope steepness, and roughening slope surfaces (for example, track walking).
 - b. The Permittee must divert off-site stormwater (run-on) or ground water away from slopes and disturbed areas with interceptor dikes, pipes, and/or swales. Off-site stormwater should be managed separately from stormwater generated on the site.
 - c. At the top of slopes, collect drainage in pipe slope drains or protected channels to prevent erosion.
 - 1. West of the Cascade Mountains Crest: Temporary pipe slope drains must handle the peak 10-minute velocity of flow from a Type IA, 10-year, 24-hour frequency storm for the developed condition. Alternatively, the 10-year, 1-hour flow rate predicted by an approved continuous runoff model, increased by a factor of 1.6, may be used. The hydrologic analysis must use the existing land cover condition for predicting flow rates from tributary areas outside the project limits. For tributary areas on the project site, the analysis must use the temporary or permanent project land cover condition, whichever will produce the highest flow rates. If using the Western Washington Hydrology Model (WWHM) to predict flows, bare soil areas should be modeled as "landscaped area."

- ii. East of the Cascade Mountains Crest: Temporary pipe slope drains must handle the expected peak flow velocity from a 6-month, 3-hour s01m for the developed condition, referred to as the short duration storm.
 - d. Place excavated material on the uphill side of trenches, consistent with safety and space considerations.
 - e. Place check dams at regular intervals within constructed channels that are cut down a slope.
- 7. Protect Drain Inlets
 - a. Protect all storm drain inlets made operable during construction so that stormwater runoff does not enter the conveyance system without first being filtered or treated to remove sediment.
 - b. Clean or remove and replace inlet protection devices when sediment has filled one-third of the available storage (unless a different standard is specified by the product manufacturer).
- 8. Stabilize Channels and Outlets
 - a. Design, construct and stabilize all on-site conveyance channels to prevent erosion from the following expected peak flows:
 - i. West of the Cascade Mountains Crest: Channels must handle the peak 10-minute velocity of flow from a Type 1A, 10-year, 24-hour frequency storm for the developed condition. Alternatively, the 10-year, 1-hour flow rate indicated by an approved continuous runoff model, increased by a factor of 1.6, may be used. The hydrologic analysis must use the existing land cover condition for predicting flow rates from tributary areas outside the project limits. For tributary areas on the project site, the analysis must use the temporary or permanent project land cover condition, whichever will produce the highest flow rates. If using the WWHM to predict flows, bare soil areas should be modeled as "landscaped area."
 - ii. East of the Cascade Mountains Crest: Channels must handle the expected peak flow velocity from a 6-month, 3-hour s01m for the developed condition, referred to as the short duration s01m.
 - b. Provide stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes, and downstream reaches at the outlets of all conveyance systems.
- 9. Control Pollutants

Design, install, implement and maintain effective pollution prevention measures to minimize the discharge of pollutants. The Permittee must:

- a. Handle and dispose of all pollutants, including waste materials and demolition debris that occur on site in a manner that does not cause contamination of stormwater.
 - b. Provide cover, containment, and protection from vandalism for all chemicals, liquid products, petroleum products, and other materials that have the potential to pose a threat to human health or the environment. On-site fueling tanks must include secondary containment. Secondary containment means placing tanks or containers within an impervious structure capable of containing 110% of the volume contained in the largest tank within the containment structure. Double-walled tanks do not require additional secondary containment.
 - c. Conduct maintenance, fueling, and repair of heavy equipment and vehicles using spill prevention and control measures. Clean contaminated surfaces immediately following any spill incident.
 - d. Discharge wheel wash or tire bath wastewater to a separate on-site treatment system that prevents discharge to surface water, such as closed-loop recirculation or upland land application, or to the sanitary sewer with local sewer district approval.
 - e. Apply fertilizers and pesticides in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Follow manufacturers' label requirements for application rates and procedures.
 - f. Use BMPs to prevent contamination of stormwater runoff by pH-modifying sources. The sources for this contamination include, but are not limited to: bulk cement, cement kiln dust, fly ash, new concrete washing and curing waters, waste streams generated from concrete grinding and sawing, exposed aggregate processes, dewatering concrete vaults, concrete pumping and mixer washout waters. (Also refer to the definition for "concrete wastewater" in Appendix A--Definitions.)
 - g. Adjust the pH of stormwater if necessary to prevent violations of water quality standards.
 - h. Assure that washout of concrete trucks is performed offsite or in designated concrete washout areas only. Do not wash out concrete trucks onto the ground, or into storm drains, open ditches, streets, or streams. Do not dump excess concrete on site, except in designated concrete washout areas. Concrete spillage or concrete discharge to surface waters of the State is prohibited.
 - i. Obtain written approval from Ecology before using chemical treatment other than CO₂ or dry ice to adjust pH.
10. Control Dewatering
- a. Permittees must discharge foundation, vault, and trench dewatering water, which have characteristics similar to stormwater runoff at the site, into a

controlled conveyance system before discharge to a sediment trap or sediment pond.

- b. Permittees may discharge clean, non-turbid dewatering water, such as well-point ground water, to systems tributary to, or directly into surface waters of the State, as specified in Special Condition S9.D.8, provided the dewatering flow does not cause erosion or flooding of receiving waters. Do not route clean dewatering water through stormwater sediment ponds. Note that "surface waters of the State" may exist on a construction site as well as off site; for example, a creek running through a site.
- c. Other treatment or disposal options may include:
 - i. Infiltration.
 - ii. Transport off site in a vehicle, such as a vacuum flush truck, for legal disposal in a manner that does not pollute state waters.
 - iii. Ecology-approved on-site chemical treatment or other suitable treatment technologies.
 - iv. Sanitary or combined sewer discharge with local sewer district approval, if there is no other option.
 - v. Use of a sedimentation bag with discharge to a ditch or swale for small volumes of localized dewatering.
- d. Permittees must handle highly turbid or contaminated dewatering water separately from stormwater.

11. Maintain BMPs

- a. Permittees must maintain and repair all temporary and permanent erosion and sediment control BMPs as needed to assure continued performance of their intended function in accordance with BMP specifications.
- b. Permittees must remove all temporary erosion and sediment control BMPs within 30 days after achieving final site stabilization or after the temporary BMPs are no longer needed.

12. Manage the Project

- a. Phase development projects to the maximum degree practicable and take into account seasonal work limitations.
- b. Inspection and monitoring – Inspect, maintain and repair all BMPs as needed to assure continued performance of their intended function. Conduct site inspections and monitoring in accordance with Special Condition S4.
- c. Maintaining an updated construction SWPPP – Maintain, update, and implement the SWPPP in accordance with Special Conditions S3, S4 and S9.

E. SWPPP – Map Contents and Requirements

The Permittee's SWPPP must also include a vicinity map or general location map (for example, a USGS quadrangle map, a portion of a county or city map, or other appropriate map) with enough detail to identify the location of the construction site and receiving waters within one mile of the site.

The SWPPP must also include a legible site map (or maps) showing the entire construction site. The following features must be identified, unless not applicable due to site conditions:

1. The direction of north, property lines, and existing structures and roads.
2. Cut and fill slopes indicating the top and bottom of slope catch lines.
3. Approximate slopes, contours, and direction of stormwater flow before and after major grading activities.
4. Areas of soil disturbance and areas that will not be disturbed.
5. Locations of structural and nonstructural controls (BMPs) identified in the SWPPP.
6. Locations of off-site material, stockpiles, waste storage, borrow areas, and vehicle/equipment storage areas.
7. Locations of all surface water bodies, including wetlands.
8. Locations where stormwater or non-stormwater discharges off-site and/or to a surface water body, including wetlands.
9. Location of water quality sampling station(s), if sampling is required by state or local permitting authority.
10. Areas where final stabilization has been accomplished and no further construction-phase permit requirements apply.

S10. NOTICE OF TERMINATION

- A. The site is eligible for termination of coverage when it has met any of the following conditions:
1. The site has undergone final stabilization, the Permittee has removed all temporary BMPs (except biodegradable BMPs clearly manufactured with the intention for the material to be left in place and not interfere with maintenance or land use), and all stormwater discharges associated with construction activity have been eliminated; or
 2. All portions of the site that have not undergone final stabilization per Special Condition S10.A.1 have been sold and/or transferred (per General Condition G9), and the Permittee no longer has operational control of the construction activity; or

3. For residential construction only, the Permittee has completed temporary stabilization and the homeowners have taken possession of the residences.
- B. When the site is eligible for termination, the Permittee must submit a complete and accurate Notice of Termination (NOT) form, signed in accordance with General Condition G2, to:

Department of Ecology
Water Quality Program - Construction Stormwater
PO Box 47696
Olympia, Washington 98504-7696

The termination is effective on the date Ecology receives the NOT form, unless Ecology notifies the Permittee within 30 days that termination request is denied because the Permittee has not met the eligibility requirements in Special Condition S10.A.

Permittees transferring the property to a new property owner or operator/permittee are required to complete and submit the Notice of Transfer form to Ecology, but are not required to submit a Notice of Termination form for this type of transaction.

GENERAL CONDITIONS

G1. DISCHARGE VIOLATIONS

All discharges and activities authorized by this general permit must be consistent with the terms and conditions of this general permit. Any discharge of any pollutant more frequent than or at a level in excess of that identified and authorized by the general permit must constitute a violation of the terms and conditions of this permit.

G2. SIGNATORY REQUIREMENTS

- A. All permit applications must bear a certification of correctness to be signed:
1. In the case of corporations, by a responsible corporate officer of at least the level of vice president of a corporation;
 2. In the case of a partnership, by a general partner of a partnership;
 3. In the case of sole proprietorship, by the proprietor; or
 4. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.
- B. All reports required by this permit and other information requested by Ecology must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
1. The authorization is made in writing by a person described above and submitted to the Ecology.
 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.
- C. Changes to authorization. If an authorization under paragraph G2.B.2 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph G2.B.2 above must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.
- D. Certification. Any person signing a document under this section must make the following certification:
- “I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering

information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

G3. RIGHT OF INSPECTION AND ENTRY

The Permittee must allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

- A. To enter upon the premises where a discharge is located or where any records are kept under the terms and conditions of this permit.
- B. To have access to and copy- at reasonable times and at reasonable cost – any records required to be kept under the terms and conditions of this permit.
- C. To inspect – at reasonable times - any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
- D. To sample or monitor - at reasonable times - any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G4. GENERAL PERMIT MODIFICATION AND REVOCATION

This permit may be modified, revoked and reissued, or terminated in accordance with the provisions of Chapter 173-226 WAC. Grounds for modification, revocation and reissuance, or termination include, but are not limited to, the following:

- A. When a change occurs in the technology or practices for control or abatement of pollutants applicable to the category of dischargers covered under this permit.
- B. When effluent limitation guidelines or standards are promulgated pursuant to the CWA or Chapter 90.48 RCW, for the category of dischargers covered under this permit.
- C. When a water quality management plan containing requirements applicable to the category of dischargers covered under this permit is approved, or
- D. When information is obtained that indicates cumulative effects on the environment from dischargers covered under this permit are unacceptable.

G5. REVOCATION OF COVERAGE UNDER THE PERMIT

Pursuant to Chapter 43 21 B RCW and Chapter 173-226 WAC, the Director may terminate coverage for any discharger under this permit for cause. Cases where coverage may be terminated include, but are not limited to, the following:

- A. Violation of any term or condition of this permit.
- B. Obtaining coverage under this permit by misrepresentation or failure to disclose fully all relevant facts.
- C. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.
- D. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.
- E. A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations.
- F. Nonpayment of permit fees or penalties assessed pursuant to RCW 90.48.465 and Chapter 173-224 WAC.
- G. Failure of the Permittee to satisfy the public notice requirements of WAC 173-226-130(5), when applicable.

The Director may require any discharger under this permit to apply for and obtain coverage under an individual permit or another more specific general permit. Permittees who have their coverage revoked for cause according to WAC 173-226-240 may request temporary coverage under this permit during the time an individual permit is being developed, provided the request is made within ninety (90) days from the time of revocation and is submitted along with a complete individual permit application form.

G6. REPORTING A CAUSE FOR MODIFICATION

The Permittee must submit a new application, or a supplement to the previous application, whenever a material change to the construction activity or in the quantity or type of discharge is anticipated which is not specifically authorized by this permit. This application must be submitted at least sixty (60) days prior to any proposed changes. Filing a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not relieve the Permittee of the duty to comply with the existing permit until it is modified or reissued.

G7. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in this permit will be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G8. DUTY TO REAPPLY

The Permittee must apply for permit renewal at least 180 days prior to the specified expiration date of this permit.

G9. TRANSFER OF GENERAL PERMIT COVERAGE

Coverage under this general permit is automatically transferred to a new discharger, including operators of lots/parcels within a common plan of development or sale, if:

- A. A written agreement (Transfer of Coverage Form) between the current discharger (Permittee) and new discharger, signed by both parties and containing a specific date for transfer of permit responsibility, coverage, and liability is submitted to the Director; and
- B. The Director does not notify the current discharger and new discharger of the Director's intent to revoke coverage under the general permit. If this notice is not given, the transfer is effective on the date specified in the written agreement.

When a current discharger (Permittee) transfers a portion of a permitted site, the current discharger must also submit an updated application form (NOI) to the Director indicating the remaining permitted acreage after the transfer.

G10. REMOVED SUBSTANCES

The Permittee must not re-suspend or reintroduce collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of stormwater to the final effluent stream for discharge to state waters.

G11. DUTY TO PROVIDE INFORMATION

The Permittee must submit to Ecology, within a reasonable time, all information that Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology, upon request, copies of records required to be kept by this permit [40 CFR 122.41(h)].

G12. OTHER REQUIREMENTS OF 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G13. ADDITIONAL MONITORING

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G14. PENALTIES FOR VIOLATING PERMIT CONDITIONS

Any person who is found guilty of willfully violating the terms and conditions of this permit shall be deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars (\$10,000) and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit shall incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars (\$10,000) for every such violation. Each and every such violation shall be a separate and distinct offense, and in case of a continuing violation, every day's continuance shall be deemed to be a separate and distinct violation.

G15. UPSET

Definition - "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that: 1) an upset occurred and that the Permittee can identify the cause(s) of the upset; 2) the permitted facility was being properly operated at the time of the upset; 3) the Permittee submitted notice of the upset as required in Special Condition S5.F, and; 4) the Permittee complied with any remedial measures required under this permit.

In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G16. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

G17. DUTY TO COMPLY

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G18. TOXIC POLLUTANTS

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G19. PENALTIES FOR TAMPERING

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment shall be a fine of not more than \$20,000 per day of violation, or imprisonment of not more than four (4) years, or both.

G20. REPORTING PLANNED CHANGES

The Permittee must, as soon as possible, give notice to Ecology of planned physical alterations, modifications or additions to the permitted construction activity. The Permittee should be aware that, depending on the nature and size of the changes to the original permit, a new public notice and other permit process requirements may be required. Changes in activities that require reporting to Ecology include those that will result in:

- A. The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b).
- B. A significant change in the nature or an increase in quantity of pollutants discharged, including but not limited to: for sites 5 acres or larger, a 20% or greater increase in acreage disturbed by construction activity.
- C. A change in or addition of surface water(s) receiving stormwater or non-stormwater from the construction activity.
- D. A change in the construction plans and/or activity that affects the Permittee's monitoring requirements in Special Condition S4.

Following such notice, permit coverage may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G21. REPORTING OTHER INFORMATION

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to Ecology, it must promptly submit such facts or information.

G22. REPORTING ANTICIPATED NON-COMPLIANCE

The Permittee must give advance notice to Ecology by submission of a new application or supplement thereto at least forty-five (45) days prior to commencement of such discharges, of any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility or activity which may result in noncompliance with permit limits or conditions. Any maintenance of facilities, which might necessitate unavoidable interruption of operation and degradation of effluent quality, must be scheduled during non-critical water quality periods and carried out in a manner approved by Ecology.

G23. REQUESTS TO BE EXCLUDED FROM COVERAGE UNDER THE PERMIT

Any discharger authorized by this permit may request to be excluded from coverage under the general permit by applying for an individual permit. The discharger must submit to the Director an application as described in WAC 173-220-040 or WAC 173-216-070, whichever is applicable, with reasons supporting the request. These reasons will fully document how an individual permit will apply to the applicant in a way that the general permit cannot. Ecology may make specific requests for information to support the request. The Director will either issue an individual permit or deny the request with a statement explaining the reason for the denial. When an individual permit is issued to a discharger otherwise subject to the construction stormwater general permit, the applicability of the construction stormwater general permit to that Permittee is automatically terminated on the effective date of the individual permit.

G24. APPEALS

- A. The terms and conditions of this general permit, as they apply to the appropriate class of dischargers, are subject to appeal by any person within 30 days of issuance of this general permit, in accordance with Chapter 43.21B RCW, and Chapter 173-226 WAC.
- B. The terms and conditions of this general permit, as they apply to an individual discharger, are appealable in accordance with Chapter 43.21B RCW within 30 days of the effective date of coverage of that discharger. Consideration of an appeal of general permit coverage of an individual discharger is limited to the general permit's applicability or nonapplicability to that individual discharger.
- C. The appeal of general permit coverage of an individual discharger does not affect any other dischargers covered under this general permit. If the terms and conditions of this general permit are found to be inapplicable to any individual discharger(s), the matter

shall be remanded to Ecology for consideration of issuance of an individual permit or permits.

G25. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

G26. BYPASS PROHIBITED

A. Bypass Procedures

Bypass, which is the intentional diversion of waste streams from any portion of a treatment facility, is prohibited for stormwater events below the design criteria for stormwater management. Ecology may take enforcement action against a Permittee for bypass unless one of the following circumstances (1, 2, 3 or 4) is applicable.

1. Bypass of stormwater is consistent with the design criteria and part of an approved management practice in the applicable stormwater management manual.
2. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

Bypass is authorized if it is for essential maintenance and does not have the potential to cause violations of limitations or other conditions of this permit, or adversely impact public health.

3. Bypass of stormwater is unavoidable, unanticipated, and results in noncompliance of this permit.

This bypass is permitted only if:

- a. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.
- b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, maintenance during normal periods of equipment downtime (but not if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance), or transport of untreated wastes to another treatment facility.

- c. Ecology is properly notified of the bypass as required in Special Condition S5.F of this permit.
4. A planned action that would cause bypass of stormwater and has the potential to result in noncompliance of this permit during a storm event.

The Permittee must notify Ecology at least thirty (30) days before the planned date of bypass. The notice must contain:

- a. a description of the bypass and its cause
 - b. an analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing.
 - c. a cost-effectiveness analysis of alternatives including comparative resource damage assessment.
 - d. the minimum and maximum duration of bypass under each alternative.
 - e. a recommendation as to the preferred alternative for conducting the bypass.
 - f. the projected date of bypass initiation.
 - g. a statement of compliance with SEPA.
 - h. a request for modification of water quality standards as provided for in WAC 173-201A-110, if an exceedance of any water quality standard is anticipated.
 - i. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.
5. For probable construction bypasses, the need to bypass is to be identified as early in the planning process as possible. The analysis required above must be considered during preparation of the Stormwater Pollution Prevention Plan (SWPPP) and must be included to the extent practical. In cases where the probable need to bypass is determined early, continued analysis is necessary up to and including the construction period in an effort to minimize or eliminate the bypass.

Ecology will consider the following before issuing an administrative order for this type bypass:

- a. If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.
- b. If there are feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.
- c. If the bypass is planned and scheduled to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, Ecology will approve, conditionally approve, or deny the request. The public must be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Approval of a request to bypass will be by administrative order issued by Ecology under RCW 90.48.120.

B. Duty to Mitigate

The Permittee is required to take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

APPENDIX A - DEFINITIONS

AKART is an acronym for "all known, available, and reasonable methods of prevention, control, and treatment." AKART represents the most current methodology that can be reasonably required for preventing, controlling, or abating the pollutants and controlling pollution associated with a discharge.

Applicable TMDL means a TMDL for turbidity, fine sediment, high pH, or phosphorus, which was completed and approved by EPA before January 1, 2011, or before the date the operator's complete permit application is received by Ecology, whichever is later.

Applicant means an operator seeking coverage under this permit.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: stormwater associated with construction activity, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Buffer means an area designated by a local jurisdiction that is contiguous to and intended to protect a sensitive area.

Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

Calendar Day A period of 24 consecutive hours starting at 12:00 midnight and ending the following 12:00 midnight.

Calendar Week (same as Week) means a period of seven consecutive days starting at 12:01 a.m. (0:01 hours) on Sunday.

Certified Erosion and Sediment Control Lead (CESCL) means a person who has current certification through an approved erosion and sediment control training program that meets the minimum training standards established by Ecology (see BMP C160 in the SWMM).

Clean Water Act (CWA) means the Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, and 97-117; USC 1251 et seq.

Combined Sewer means a sewer which has been designed to serve as a sanitary sewer and a storm sewer, and into which inflow is allowed by local ordinance.

Common Plan of Development or Sale means a site where multiple separate and distinct construction activities may be taking place at different times on different schedules and/or by different contractors, but still under a single plan. Examples include: 1) phased projects and projects with multiple filings or lots, even if the separate phases or filings/lots will be constructed under separate contract or by separate owners (e.g., a development where lots are sold to separate builders); 2) a development plan that may be phased over multiple years, but is still under a

consistent plan for long-term development; 3) projects in a contiguous area that may be unrelated but still under the same contract, such as construction of a building extension and a new parking lot at the same facility; and 4) linear projects such as roads, pipelines, or utilities. If the project is part of a common plan of development or sale, the disturbed area of the entire plan must be used in determining permit requirements.

Composite Sample means a mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increases while maintaining a constant time interval between the aliquots).

Concrete wastewater means any water used in the production, pouring and/or clean-up of concrete or concrete products, and any water used to cut, grind, wash, or otherwise modify concrete or concrete products. Examples include water used for or resulting from concrete truck/mixer/pumper/tool/chute rinsing or washing, concrete saw cutting and surfacing (sawing, coring, grinding, roughening, hydro-demolition, bridge and road surfacing). When stormwater combines with concrete wastewater, the resulting water is considered concrete wastewater and must be managed to prevent discharge to waters of the state, including ground water.

Construction Activity means land disturbing operations including clearing, grading or excavation which disturbs the surface of the land. Such activities may include road construction, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

Contaminant means any hazardous substance that does not occur naturally or occurs at greater than natural background levels. See definition of "hazardous substance" and WAC 173-340-200.

Demonstrably Equivalent means that the technical basis for the selection of all stormwater BMPs is documented within a SWPPP, including:

1. The method and reasons for choosing the stormwater BMPs selected.
2. The pollutant removal performance expected from the BMPs selected.
3. The technical basis supporting the performance claims for the BMPs selected, including any available data concerning field performance of the BMPs selected.
4. An assessment of how the selected BMPs will comply with state water quality standards.
5. An assessment of how the selected BMPs will satisfy both applicable federal technology-based treatment requirements and state requirements to use all known, available, and reasonable methods of prevention, control, and treatment (AKART).

Department means the Washington State Department of Ecology.

Detention means the temporary storage of stormwater to improve quality and/or to reduce the mass flow rate of discharge.

Dewatering means the act of pumping ground water or stormwater away from an active construction site.

Director means the Director of the Washington Department of Ecology or his/her authorized representative.

Discharger means an owner or operator of any facility or activity subject to regulation under Chapter 90.48 RCW or the Federal Clean Water Act.

Domestic Wastewater means water carrying human wastes, including kitchen, bath, and laundry wastes from residences, buildings, industrial establishments, or other places, together with such ground water infiltration or surface waters as may be present.

Ecology means the Washington State Department of Ecology.

Engineered Soils means the use of soil amendments including, but not limited, to Portland cement treated base (CTB), cement kiln dust (CKD), or fly ash to achieve certain desirable soil characteristics.

Equivalent BMPs means operational, source control, treatment, or innovative BMPs which result in equal or better quality of stormwater discharge to surface water or to ground water than BMPs selected from the SWMM.

Erosion means the wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep.

Erosion and Sediment Control BMPs means BMPs intended to prevent erosion and sedimentation, such as preserving natural vegetation, seeding, mulching and matting, plastic covering, filter fences, sediment traps, and ponds. Erosion and sediment control BMPs are synonymous with stabilization and structural BMPs.

Final Stabilization (same as fully stabilized or full stabilization) means the establishment of a permanent vegetative cover, or equivalent permanent stabilization measures (such as riprap, gabions or geotextiles) which prevents erosion.

Ground Water means water in a saturated zone or stratum beneath the land surface or a surface water body.

Hazardous Substance means any dangerous or extremely hazardous waste as defined in RCW 70.105.010 (5) and (6), or any dangerous or extremely dangerous waste as designated by rule under chapter 70.105 RCW; any hazardous substance as defined in RCW 70.105.010(14) or any hazardous substance as defined by rule under chapter 70.105 RCW; any substance that, on the effective date of this section, is a hazardous substance under section 101(14) of the federal cleanup law, 42 U.S.C., Sec. 9601(14); petroleum or petroleum products; and any substance or category of substances, including solid waste decomposition products, determined by the director

by rule to present a threat to human health or the environment if released into the environment. The term hazardous substance does not include any of the following when contained in an underground storage tank from which there is not a release: crude oil or any fraction thereof or petroleum, if the tank is in compliance with all applicable federal, state, and local law.

Injection Well means a well that is used for the subsurface emplacement of fluids. (See Well.)

Jurisdiction means a political unit such as a city, town or county; incorporated for local self-government.

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring, and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307,402,318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the State from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington Department of Ecology.

Notice of Intent (NOI) means the application for, or a request for coverage under this general permit pursuant to WAC 173-226-200.

Notice of Termination (NOT) means a request for termination of coverage under this general permit as specified by Special Condition S10 of this permit.

Operator means any party associated with a construction project that meets either of the following two criteria:

- The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
- The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with a SWPPP for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions).

Permittee means individual or entity that receives notice of coverage under this general permit.

pH means a liquid's measure of acidity or alkalinity. A pH of 7 is defined as neutral. Large variations above or below this value are considered harmful to most aquatic life.

pH monitoring period means the time period in which the pH of stormwater runoff from a site must be tested a minimum of once every seven days to determine if stormwater pH is between 6.5 and 8.5.

Point source means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, and container from which pollutants are or may be discharged to surface waters of the State. This term does not include return flows from irrigated agriculture. (See Fact Sheet for further explanation.)

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, domestic sewage sludge (biosolids), munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste. This term does not include sewage from vessels within the meaning of section 312 of the CWA, nor does it include dredged or fill material discharged in accordance with a permit issued under section 404 of the CWA.

Pollution means contamination or other alteration of the physical, chemical, or biological properties of waters of the State; including change in temperature, taste, color, turbidity, or odor of the waters; or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the State as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare; or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses; or to livestock, wild animals, birds, fish or other aquatic life.

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product (40 CFR 122.1).

Receiving water means the water body at the point of discharge. If the discharge is to a storm sewer system, either surface or subsurface, the receiving water is the water body to which the storm system discharges. Systems designed primarily for other purposes such as for ground water drainage, redirecting stream natural flows, or for conveyance of irrigation water/return flows that coincidentally convey stormwater are considered the receiving water.

Representative means a stormwater or wastewater sample which represents the flow and characteristics of the discharge. Representative samples may be a grab sample, a time-proportionate composite sample, or a flow proportionate sample. Ecology's Construction Stormwater Monitoring Manual provides guidance on representative sampling.

Sanitary sewer means a sewer which is designed to convey domestic wastewater.

Sediment means the fragmented material that originates from the weathering and erosion of rocks or unconsolidated deposits, and is transported by, suspended in, or deposited by water.

Sedimentation means the depositing or formation of sediment.

Sensitive area means a water body, wetland, stream, aquifer recharge area, or channel migration zone.

SEPA (State Environmental Policy Act) means the Washington State Law, RCW 43.21C.020, intended to prevent or eliminate damage to the environment.

Significant Amount means an amount of a pollutant in a discharge that is amenable to available and reasonable methods of prevention or treatment; or an amount of a pollutant that has a

reasonable potential to cause a violation of surface or ground water quality or sediment management standards.

Significant concrete work means greater than 1000 cubic yards poured concrete or recycled concrete over the life of a project.

Significant Contributor of Pollutants means a facility determined by Ecology to be a contributor of a significant amount(s) of a pollutant(s) to waters of the State of Washington.

Site means the land or water area where any "facility or activity" is physically located or conducted.

Source control BMPs means physical, structural or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater. A few examples of source control BMPs are erosion control practices, maintenance of stormwater facilities, constructing roofs over storage and working areas, and directing wash water and similar discharges to the sanitary sewer or a dead end sump.

Stabilization means the application of appropriate BMPs to prevent the erosion of soils, such as, temporary and permanent seeding, vegetative covers, mulching and matting, plastic covering and sodding. See also the definition of Erosion and Sediment Control BMPs.

Storm drain means any drain which drains directly into a storm sewer system, usually found along roadways or in parking lots.

Storm sewer system means a means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains designed or used for collecting or conveying stormwater. This does not include systems which are part of a combined sewer or Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

Stormwater means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface water body, or a constructed infiltration facility.

Stormwater Management Manual (SWMM) or Manual means the technical Manual published by Ecology for use by local governments that contain descriptions of and design criteria for BMPs to prevent, control, or treat pollutants in stormwater.

Stormwater Pollution Prevention Plan (SWPPP) means a documented plan to implement measures to identify, prevent, and control the contamination of point source discharges of stormwater.

Surface Waters of the State includes lakes, rivers, ponds, streams, inland waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.

Temporary Stabilization means the exposed ground surface has been covered with appropriate materials to provide temporary stabilization of the surface from water or wind erosion. Materials include, but are not limited to, mulch, riprap, erosion control mats or blankets and temporary cover crops. Seeding alone is not considered stabilization. Temporary stabilization is not a substitute for the more permanent “final stabilization.”

Total Maximum Daily Load (TMDL) means a calculation of the maximum amount of a pollutant that a water body can receive and still meet state water quality standards. Percentages of the total maximum daily load are allocated to the various pollutant sources. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. The TMDL calculations must include a "margin of safety" to ensure that the water body can be protected in case there are unforeseen events or unknown sources of the pollutant. The calculation must also account for seasonable variation in water quality.

Treatment BMPs means BMPs that are intended to remove pollutants from stormwater. A few examples of treatment BMPs are detention ponds, oil/water separators, biofiltration, and constructed wetlands.

Transparency means a measurement of water clarity in centimeters (cm), using a 60 cm transparency tube. The transparency tube is used to estimate the relative clarity or transparency of water by noting the depth at which a black and white Secchi disc becomes visible when water is released from a value in the bottom of the tube. A transparency tube is sometimes referred to as a “turbidity tube.”

Turbidity means the clarity of water expressed as nephelometric turbidity units (NTU) and measured with a calibrated turbidimeter.

Uncontaminated means free from any contaminant, as defined in MTCA cleanup regulations. See definition of “contaminant” and WAC 173-340-200.

Waste Load Allocation (WLA) means the portion of a receiving water’s loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality based effluent limitation (40 CFR 130.2[h]).

Water quality means the chemical, physical, and biological characteristics of water, usually with respect to its suitability for a particular purpose.

Waters of the State includes those waters as defined as "waters of the United States" in 40 CFR Subpart 122.2 within the geographic boundaries of Washington State and "waters of the State" as defined in Chapter 90.48 RCW, which include lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.

Well means a bored, drilled or driven shaft, or dug hole whose depth is greater than the largest surface dimension. (See Injection well.)

Wheel wash wastewater means any water used in, or resulting from the operation of, a tire bath or wheel wash (BMP C106: Wheel Wash), or other structure or practice that uses water to physically remove mud and debris from vehicles leaving a construction site and prevent track-out onto roads. When stormwater combines with wheel wash wastewater, the resulting water is considered wheel wash wastewater and must be managed according to Special Condition S9.D.9.

APPENDIX B – ACRONYMS

AKART	All Known, Available, and Reasonable Methods of Prevention, Control, and Treatment
BMP	Best Management Practice
CESCL	Certified Erosion and Sediment Control Lead
CFR	Code of Federal Regulations
CKD	Cement Kiln Dust
cm	Centimeters
CTB	Cement-Treated Base
CWA	Clean Water Act
DMR	Discharge Monitoring Report
EPA	Environmental Protection Agency
ESC	Erosion and Sediment Control
FR	Federal Register
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Unit
RCW	Revised Code of Washington
SEPA	State Environmental Policy Act
SWMM	Stormwater Management Manual
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
UIC	Underground Injection Control
USC	United States Code
USEPA	United States Environmental Protection Agency
WAC	Washington Administrative Code
WQ	Water Quality
WWHM	Western Washington Hydrology Model

Issuance Date: December 17, 2014
Effective Date: January 1, 2015
Expiration Date: December 31, 2019
Modification Date: November 12, 2015

**National Pollutant Discharge Elimination System
Waste Discharge Permit No. WA0001091**

State of Washington
DEPARTMENT OF ECOLOGY
Bellingham Field Office
1440 10th Street, Suite 102
Bellingham, WA 98225-7028

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington
and
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1342 et seq.

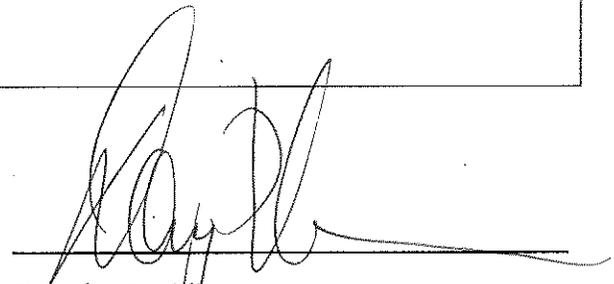
Port of Bellingham
1801 Roeder Avenue
Bellingham, Washington 98225

is authorized to discharge in accordance with the Special and General Conditions that follow.

Facility Location:
300 West Laurel Street

Receiving Water:
Bellingham Bay

Treatment Type:
Lagoon, settling



Douglas R. Allen
Manager
Bellingham Field Office
Washington State Department of Ecology

Table of Contents

Summary of Permit Report Submittals	4
Special Conditions.....	5
S1. Discharge limits.....	5
S1.A. Effluent discharges from the ASB	5
S1.B. Mixing zone authorization	5
S2. Monitoring requirements	6
S2.A. Monitoring schedule.....	6
S2.B. Sampling and analytical procedures.....	8
S2.C. Flow measurement, field measurement, and continuous monitoring devices	8
S2.D. Laboratory accreditation	9
S3. Reporting and record keeping requirements	9
S3.A. Reporting.....	9
S3.B. Records retention	10
S3.C. Recording of results	11
S3.D. Additional monitoring by the Permittee.....	11
S3.E. Reporting permit violations.....	11
S3.F. Other reporting.....	13
S3.G. Maintaining a copy of this permit	13
S4. Operation and maintenance.....	13
S4.A. Operations and maintenance (O&M) manual	13
S4.B. Bypass procedures.....	15
S5. Solid wastes.....	17
S5.A. Solid waste handling	17
S5.B. Leachate	17
S5.C. Solid waste control plan.....	17
S6. Application for permit renewal or modification for facility changes.....	17
S7. Non-routine and unanticipated discharges.....	17
S8. Spill control plan	18
S8.A. Spill control plan submittals and requirements	18
S8.B. Spill control plan components.....	18
S9. Stormwater pollution prevention plan.....	19
S9.A. Plan development	19
S9.B. General requirements	20
S9.C. Implementation	20
S9.D. Plan evaluation	20
S9.E. Construction activities.....	21
S10. Sediment monitoring.....	21
S10.A. Sediment sampling and analysis plan.....	21
S11. Water balance.....	21
S11.A. Water balance study plan.....	21
S11.B. Water balance study.....	21

GENERAL CONDITIONS..... 22

G1. Signatory requirements 22

G2. Right of inspection and entry 23

G3. Permit actions..... 23

G4. Reporting planned changes 24

G5. Compliance with other laws and statutes 25

G6. Transfer of this permit 25

G7. Reduced production for compliance 26

G8. Removed substances 26

G9. Duty to provide information 26

G10. Other requirements of 40 CFR..... 26

G11. Additional monitoring 26

G12. Payment of fees..... 26

G13. Penalties for violating permit conditions 26

G14. Upset..... 27

G15. Property rights 27

G16. Duty to comply 27

G17. Toxic pollutants..... 27

G18. Penalties for tampering 27

**G19. Reporting requirements applicable to existing manufacturing, commercial, mining,
and silvicultural dischargers..... 28**

G21. Compliance schedules..... 28

Appendix A 29

Summary of Permit Report Submittals

Refer to the Special and General Conditions of this permit for additional submittal requirements.

Permit Section	Submittal	Frequency	First Submittal Date
S3.A	Discharge Monitoring Report	As necessary	
S3.E	Reporting Permit Violations	As necessary	
S3.E	Shellfish Protection	As necessary	
S3.F	Other Reporting	As necessary	
S4.A	Treatment System Operating Plan	As necessary	December 15, 2015
S4.A	ASB Pipeline Tightness Testing	Annually	December 15, 2015 and annually thereafter
S4.B	Reporting Bypasses	As necessary	
S5.C	Solid Waste Control Plan	1/permit cycle	July 1, 2018
S5.C	Modification to Solid Waste Plan	As necessary	
S6	Application for Permit Renewal	1/permit cycle	March 1, 2019
S6	Sampling Plan for Application Sampling	1/permit cycle	January 1, 2018
S7	Non-Routine and Unanticipated Discharges	As necessary	30 days before each discharge
S8	Spill Plan	1/permit cycle, updates submitted as necessary	March 2, 2015
S9	Stormwater Pollution Prevention Plan	1/permit cycle	July 1, 2018
S10.A	Sediment sampling and analysis plan	2/permit cycle	90 days prior to baseline sampling
S11.A	Water balance study plan	1/permit cycle	March 2, 2015
S11.B	Water balance plan	1/permit cycle	February 28, 2016
G1	Notice of Change in Authorization	As necessary	
G4	Permit Application for Substantive Changes to the Discharge	As necessary	
G4	Engineering Report for Construction or Modification Activities	As necessary	
G6	Notice of Permit Transfer	As necessary	
G9	Duty to Provide Information	As necessary	
G12	Payment of Fees	As assessed	
G21	Compliance Schedules	As necessary	

Special Conditions

S1. Discharge limits

S1.A. Effluent discharges from the ASB

All discharges and activities authorized by this permit must be consistent with the terms and conditions of this permit.

The discharge of any of the following pollutants more frequently than, or at a level in excess of that identified and authorized by this permit violates the terms and conditions of this permit. The Permittee must notify Ecology prior to discharging from outfall 009.

Beginning on the effective date of this permit and lasting through the expiration date, the Permittee is authorized to discharge from outfall 009 (the ASB) to Bellingham Bay at the permitted location subject to complying with the following limits:

Effluent Limits: Outfall # 009		
Latitude: 48.7347 Longitude: -122.5147		
Parameter	Minimum Daily ^a	
Dissolved Oxygen	7.0 mg/L	
Parameter	Benchmark ^b	
Turbidity	not greater than 10 NTU.	
Parameter	Daily Minimum ^c	Daily Maximum ^c
pH	6.0 standard units	9.0 standard units
^a	Minimum daily effluent limit means the lowest allowable daily discharge.	
^b	If the benchmark is exceeded the Permittee must stop the discharge within 90 minutes until the turbidity is below 10 NTU. Two grab samples must be taken once the discharge has been stopped.	
^c	The Permittee must record and report the instantaneous maximum and minimum pH. Do not average pH values: When pH is continuously monitored, excursions between 5.0 and 6.0, or 9.0 and 10.0 are not be considered violations if no single excursion exceeds 60 minutes in length and total excursions do not exceed 7 hours and 30 minutes per month. Any excursions below 5.0 and above 10.0 at any time are violations. Note the duration for each excursion. If submitting electronic DMRs, include this additional information in the parameter notes.	

S1.B. Mixing zone authorization

The following paragraphs define the maximum boundaries of the mixing zones:

Chronic mixing zone

The mixing zone is a circle with radius of 250 feet (76.2 meters) measured from the center of each discharge port. The mixing zone extends from the discharge port(s) to the top of the water surface. The concentration of pollutants at the edge of the chronic zone must meet chronic aquatic life criteria and human health criteria.

Acute mixing zone

The acute mixing zone is a circle with radius of 25 feet (7.62 meters) measured from the center of each discharge port. The mixing zone extends from the discharge port(s) to the top of the water surface. The concentration of pollutants at the edge of the acute zone must meet acute aquatic life criteria.

Available Dilution (dilution factor)	
Acute Aquatic Life Criteria	89
Chronic Aquatic Life Criteria	265
Human Health Criteria - Carcinogen	265

S2. Monitoring requirements

S2.A. Monitoring schedule

The Permittee must monitor in accordance with the following schedule and the requirements specified in *Appendix A*.

If the discharge exceeds the benchmark the Permittee must stop the discharge within 90 minutes and take two additional confirmation grab samples, and test turbidity, after the discharge is stopped.

Monitoring Schedule			
Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
(1) Wastewater Effluent			
Flow	million gallons/day (mgd)	Continuous ^a	Measurement ^b
Lagoon surface elevation	Feet	Monthly	Calibrated sight glass or staff
Lagoon Volume	Million gallons ^c	Monthly	Calculation
Dissolved Oxygen	mg/L	Continuous ^a	Measurement ^b
Turbidity	NTU	Continuous ^a	Measurement ^b
Turbidity	NTU	3/day ^k	Grab ^e
pH	standard units	Continuous ^a	Measurement ^b
Temperature ^d	(°C)	Continuous ^a	Measurement ^b
Total Ammonia	mg/L as N	2 /discharge event ⁱ	Grab ^e
Nitrate plus Nitrite N	mg/L as N	2 /discharge event ⁱ	Grab ^e
Oil and Grease	mg/L	2 /discharge event ⁱ	Grab ^e
Phosphorus (Total)	mg/L as P	2 /discharge event ⁱ	Grab ^e
Zinc (Total)	Micrograms/liter (µg/L)	1 /discharge event ^j	Grab ^e
Copper (Total)	µg/L	2 /discharge event ⁱ	Grab ^e
Mercury (Total)	Nanograms/liter (ng/L)	1 /discharge event ^j	Grab ^e
PAH	µg/L	2 /discharge event ⁱ	Grab ^e
2,3,7,8-tetrachlorodibenzo- <i>p</i> -dioxin (TCDD - Dioxin)	Picograms (pg/L)	1/discharge event ^j	Grab ^e
(2) Permit Renewal Application Requirements – ASB Lagoon			
See Appendix A to identify the specific pollutants in the priority pollutant groups listed below			
Cyanide ^h	µg/L	3	Grab ^e

Monitoring Schedule			
Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
Total Phenolic Compounds ^h	µg/L	3	Grab ^e
Priority Pollutants (PP) – Total Metals ^h	µg/L; ng/L for mercury	3	24-Hour composite ^d Grab for mercury
PP – Volatile Organic Compounds ^h	µg/L	3	Grab ^e
PP – Acid-extractable Compounds ^h	µg/L	3	24-Hour composite ^d
PP – Base-neutral Compounds ^h	µg/L	3	24-Hour composite ^d
PP – Dioxin ^h	pg/L	3	24-Hour composite ^d
PP – Pesticides/PCBs ^h	µg/L	3	24-Hour composite ^d
^a	Continuous means uninterrupted except for brief lengths of time for calibration, for power failure, or for unanticipated equipment repair or maintenance. The Permittee must sample every hour when continuous monitoring is not possible.		
^b	If a flow is observed entering the outfall standpipe it must be measured with the most accurately appropriate measurement.		
^c	Calculate volume to the nearest 0.001 million gallons (e.g., nearest 1,000 gallons)		
^d	24-hour composite means a series of 4 individual representative samples collected over a 24-hour period into a single container, and analyzed as one sample.		
^e	Grab means an individual sample collected over a period of fifteen (15) minutes, or less.		
^f	Continuous monitoring instruments must achieve an accuracy of 0.2 degrees C and the Permittee must verify accuracy annually. Temperature grab sampling must occur when the effluent is at or near its daily maximum temperature, which usually occurs in the late afternoon. If measuring temperature continuously, the Permittee must determine and report a daily maximum from half-hour measurements in a 24-hour period.		
^g	<p>See note c for additional information.</p> <p>The Permittee must record and report the instantaneous maximum and minimum pH. Do not average pH values.</p> <p>When pH is continuously monitored, excursions between 5.0 and 6.0, or 9.0 and 10.0 are not be considered violations if no single excursion exceeds 60 minutes in length and total excursions do not exceed 7 hours and 30 minutes per month. Any excursions below 5.0 and above 10.0 at any time are violations.</p> <p>If multiple excursions occur during the day, note the duration for each excursion. If submitting electronic DMRs, include this additional information in the parameter notes.</p>		
^h	<p>See Appendix A for the required detection (DL) or quantitation (QL) levels.</p> <p>Report single analytical values below detection as “less than (detection level)” where (detection level) is the numeric value specified in attachment A.</p> <p>Report single analytical values between the agency-required detection and quantitation levels with qualifier code of j following the value.</p> <p>To calculate the average value (monthly average):</p> <p style="padding-left: 40px;">Use the reported numeric value for all parameters measured between the agency-required detection value and the agency-required quantitation value.</p> <p style="padding-left: 40px;">For values reported below detection, use one-half the detection value if the lab detected the parameter in another sample for the reporting period.</p> <p style="padding-left: 40px;">For values reported below detection, use zero if the lab did not detect the parameter in another sample for the reporting period.</p>		

Monitoring Schedule			
Parameter	Units & Speciation	Minimum Sampling Frequency	Sample Type
	If the Permittee is unable to obtain the required DL and QL in its effluent due to matrix effects, the Permittee must submit a matrix-specific detection limit (MDL) and a quantitation limit (QL) to Ecology with appropriate laboratory documentation.		
i	Two samples will be collected per discharge. The first sample will be collected during the first 30-minutes of discharge. The second sample will be collected during the last 30-minutes of discharge		
j	One sample per discharge will be taken during the last 30-minutes of the discharge event.		
k	The samples must be collected no closer than 6 hours and no longer than 8 hours apart. If there is an exceedence of the turbidity benchmark 2 additional grab samples shall be taken after the discharge is stopped. Grab sample turbidity must be measured within 15 minutes of being taken.		

S2.B. Sampling and analytical procedures

Samples and measurements taken to meet the requirements of this permit must represent the volume and nature of the monitored parameters, including representative sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions affecting effluent quality.

The first sample will be collected during the first 30 minutes of discharge. The last sample will be collected during the last 30 minutes of discharge. In addition to turbidity being continuously monitored, three turbidity grab samples must be collected in a time frame of not less than every six hours and no longer than every eight hours during discharge events. This does not include the last sample to be collected during the last 30 minutes.

Sampling and analytical methods used to meet the monitoring requirements specified in this permit must conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136.

S2.C. Flow measurement, field measurement, and continuous monitoring devices

The Permittee must:

1. Select and use appropriate flow measurement, field measurement, and continuous monitoring devices and methods consistent with accepted scientific practices.
2. Install, calibrate, and maintain these devices to ensure the accuracy of the measurements is consistent with the accepted industry standard and the manufacturer's recommendation for that type of device.
3. Calibrate continuous monitoring instruments before use unless it can demonstrate a longer period is sufficient based on monitoring records. The Permittee:
 - a. May calibrate apparatus for continuous monitoring of dissolved oxygen by air calibration.

- b. Must calibrate continuous pH measurement instruments using a grab sample analyzed in the lab with a pH meter calibrated with standard buffers and analyzed within 15 minutes of sampling.
4. Calibrate micro-recording temperature devices, known as thermistors, using protocols from Ecology's Quality Assurance Project Plan Development Tool (Continuous Temperature Sampling Protocols for the Environmental Monitoring and Trends). This document is available online at: <http://www.ecy.wa.gov/programs/eap/qa/docs/QAPPtool/Mod6%20Ecology%20SOPs/Protocols/ContinuousTemperatureSampling.pdf>
Calibration as specified in this document is not required if the Permittee uses recording devices certified by the manufacturer.
5. Use field measurement devices as directed by the manufacturer and do not use reagents beyond their expiration dates.
6. Calibrate these devices at the frequency recommended by the manufacturer.
7. Maintain calibration records for at least three years.

S2.D. Laboratory accreditation

The Permittee must ensure that all monitoring data required by Ecology is prepared by a laboratory registered or accredited under the provisions of chapter 173-50 WAC, Accreditation of Environmental Laboratories. Flow, temperature, settleable solids, conductivity, pH, and internal process control parameters are exempt from this requirement. The Permittee must obtain accreditation for conductivity and pH if it must receive accreditation or registration for other parameters.

S3. Reporting and record keeping requirements

The Permittee must monitor and report in accordance with the following conditions. The falsification of information submitted to Ecology is a violation of the terms and conditions of this permit.

S3.A. Reporting

The first monitoring period begins on the effective date of the permit. The Permittee must:

1. Summarize, report, and submit monitoring data obtained during each monitoring period on the electronic Discharge Monitoring Report (DMR) form provided by Ecology within WAWebDMR. Include data for each of the parameters tabulated in Special Condition S2 and as required by the form. Report a value for each day sampling occurred (unless specifically exempted in the permit) and for the summary values (when applicable) included on the electronic form.

To find out more information and to sign up for WAWebDMR go to: <http://www.ecy.wa.gov/programs/wq/permits/paris/webdmr.html> .

If unable to submit electronically (for example, if you do not have an internet connection), the Permittee must contact Ecology to request a waiver and obtain instructions on how to obtain a paper copy DMR.

Submit the form as required with the words "no discharge" entered in place of the monitoring results, if the facility did not discharge during a given monitoring period. If submitting DMRs electronically, you must enter "no discharge" for an entire DMR, for a specific monitoring point, or for a specific parameter as appropriate.

2. Report the test method, the DL, and the QL on the discharge monitoring report or in the required report, if the Permittee used an alternative method not specified in the permit and as allowed in Appendix A.
3. Include the following information (for priority pollutant organic and metal parameters lab reports): sampling date, sample location, date of analysis, parameter name, CAS number, analytical method/number, method detection limit (MDL), laboratory practical quantitation limit (PQL), reporting units, and concentration detected. The Permittee must submit a copy of the contract laboratory report to provide this information. Analytical results from samples sent to a contract laboratory must also include information on the chain of custody, QA/QC results, and documentation of accreditation for the parameter. If the Permittee submits electronic DMRs, then it must attach an electronic file of the lab report to the electronic DMR.
4. Ensure that DMR forms are postmarked or received by Ecology no later than the dates specified below, unless otherwise specified in this permit. If submitting DMRS electronically, submit the DMR no later than the dates specified below, unless otherwise specified in this permit.
5. Submit DMRs for parameters with the monitoring frequencies specified in S2 (monthly, quarterly, annual, etc.) at the reporting schedule identified below. The Permittee must:
 - a. Submit **monthly** DMRs by the 15th day of the following month.
6. Submit reports to Ecology online using Ecology's electronic DMR submittal forms or send reports to Ecology at:

Water Quality Permit Coordinator
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

AND

Department of Ecology
Bellingham Field Office
1440 10th Street, Suite 102
Bellingham, WA 98225-7028

S3.B. Records retention

The Permittee must retain records of all monitoring information for a minimum of three (3) years. Such information must include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation,

copies of all reports required by this permit, and records of all data used to complete the application for this permit. The Permittee must extend this period of retention during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

S3.C. Recording of results

For each measurement or sample taken, the Permittee must record the following information:

1. The date, exact place, method, and time of sampling or measurement.
2. The individual who performed the sampling or measurement.
3. The dates the analyses were performed.
4. The individual who performed the analyses.
5. The analytical techniques or methods used.
6. The results of all analyses.

S3.D. Additional monitoring by the Permittee

If the Permittee monitors any pollutant or the ASB more frequently than required by Condition S2 of this permit, then the Permittee must include the results of such monitoring in the calculation and reporting of the data submitted in the Permittee's DMR.

S3.E. Reporting permit violations

The Permittee must take the following actions when it violates or is unable to comply with any permit condition:

1. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the noncompliance and correct the problem.
2. If applicable, immediately repeat sampling and analysis. Submit the results of any repeat sampling to Ecology within thirty (30) days of sampling.

a. Immediate reporting

The Permittee must immediately report to Ecology and the Department of Health, Shellfish Program (at the numbers listed below), all:

- Collection system overflows or failures discharging to marine surface waters.
- Plant bypasses discharging to marine surface waters.

Northwest Regional Office 425-649-7000

Bellingham Field Office 360-715-5208

Department of Health, 360-236-3330 (business hours)
Shellfish Program 360-789-8962 (after business hours)

b. Twenty-four-hour reporting

The Permittee must report the following occurrences of noncompliance by telephone, to Ecology at the telephone numbers listed above, within 24 hours from the time the Permittee becomes aware of any of the following circumstances:

1. Any noncompliance that may endanger health or the environment, unless previously reported under immediate reporting requirements.
2. Any unanticipated bypass that causes an exceedence of any effluent limit in the permit (See Part S4.B., "Bypass Procedures").
3. Any upset that causes an exceedence of an effluent limit in the permit (See G.15, "Upset").
4. Any violation of a maximum daily, instantaneous maximum discharge limit for any of the pollutants in Section S1.A of this permit, or an exceedence of the turbidity benchmark.
5. Any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limit in the permit.

c. Report within five days

The Permittee must also provide a written submission within five days of the time that the Permittee becomes aware of any reportable event under subparts a or b, above. The written submission must contain:

1. A description of the noncompliance and its cause.
2. The period of noncompliance, including exact dates and times.
3. The estimated time the Permittee expects the noncompliance to continue if not yet corrected.
4. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
5. If the noncompliance involves an overflow prior to the treatment works, an estimate of the quantity (in gallons) of untreated overflow.

d. Waiver of written reports

Ecology may waive the written report required in subpart c, above, on a case-by-case basis upon request if the Permittee has submitted a timely oral report.

e. All other permit violation reporting

The Permittee must report all permit violations, which do not require immediate or within 24 hours reporting, when it submits monitoring reports for S3.A ("Reporting"). The reports must contain the information listed in subpart c, above. Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

f. Report Submittal

The Permittee must submit reports to the address listed in S3.A

S3.F. Other reporting

The Permittee must report a spill of oil or hazardous materials in accordance with the requirements of RCW 90.56.280 and chapter 173-303-145. You can obtain further instructions at the following website:

<http://www.ecy.wa.gov/programs/spills/other/reportaspill.htm> .

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to Ecology, it must submit such facts or information promptly.

S3.G. Maintaining a copy of this permit

The Permittee must keep a copy of this permit at the facility and make it available upon request to Ecology inspectors.

S4. Operation and maintenance

The Permittee must, at all times, properly operate and maintain all facilities or systems of treatment and control (and related appurtenances), which are installed to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes keeping an operation logbook (paper or electronic) when a discharge does occur, adequate laboratory controls, and appropriate quality assurance procedures. This provision of the permit requires the Permittee to operate backup or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of this permit.

S4.A. Operations and maintenance (O&M) manual

a. O&M manual submittal and requirements

The Permittee must:

1. Update the Treatment System Operating Plan (TSOP) manual as needed so that it meets the applicable requirements of 173-240-150 WAC, and submit it to Ecology for approval by **December 15, 2015**. The Permittee must submit a paper copy and an electronic copy (preferably in a portable document format (PDF)). Submit to Ecology for review and approval substantial changes or updates to the TSOP manual whenever it incorporates them into the manual. The Permittee must submit a paper copy and an electronic copy (preferably as a PDF).
2. Submit the results of annual conveyance pipeline tightness testing of the piping from GP-West to the ASB by **December 15, 2015**.
3. Keep a copy of the approved O&M manual at the permitted facility.
4. Follow the instructions and procedures of this manual.

b. Treatment system operating plan

The Permittee must summarize the following information in the initial chapter of the O&M Manual entitled the "Treatment System Operating Plan." For the purposes of this permit, a Treatment System Operating Plan (TSOP) is a concise and specifically defined plan with elements of the O&M Manual dealing directly with any parts of the treatment system and ASB.

The Permittee must submit an updated Treatment System Operating Plan to Ecology by **December 15, 2015**, or earlier if applicable. The Permittee must update and submit this plan, as necessary, to include requirements for any major modifications of the treatment system.

The TSOP must not conflict with the O&M Manual and must include the following information:

1. A baseline operating condition, which describes the operating parameters and procedures, used to meet the effluent limits of S1 before and during discharge. The permittee must include proposed sampling points, methods of sampling, points for effective flow sampling, and types of flow meters.
2. In the event of conditions which are below the baseline levels used to establish these limits, the plan must describe the operating procedures and conditions needed to maintain design treatment efficiency. The monitoring and reporting must be described in the plan.
3. In the event of an upset, due to plant maintenance activities, severe stormwater events, start ups or shut downs, or other causes, the plan must describe the operating procedures and conditions employed to mitigate the upset. The monitoring and reporting must be described in the plan.
4. A description of any scheduled maintenance or repair activities at the facility which would result in a discharge, or affect the volume or character of the wastes discharged to the wastewater treatment system, and a plan for monitoring and treating/controlling the discharge of maintenance-related materials (such as cleaners, degreasers, solvents, etc.).
5. A description of annual pipeline testing results for those pipelines conveying substances between the Port's Georgia Pacific West site and the aerated stabilization basin, in accordance with tightness testing procedures developed by the Port and its consultant, as approved by Ecology.
6. Any directions to maintenance staff when cleaning, or maintaining other equipment or performing other tasks which are necessary to protect the operation of the wastewater system (for example, defining maximum allowable discharge rate for draining a tank, blocking all floor drains before beginning the overhaul of a stationary engine.)
7. Wastewater sampling protocols and procedures for compliance with the sampling and reporting requirements in the wastewater discharge permit.

8. Minimum staffing adequate to operate and maintain the treatment processes when in use and carry out compliance monitoring required by the permit.
9. Treatment plant process control monitoring schedule.

S4.B. Bypass procedures

This permit prohibits a bypass, which is the intentional diversion of waste streams from any portion of a treatment facility. Ecology may take enforcement action against a Permittee for a bypass unless one of the following circumstances (1, 2, or 3) applies.

1. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

This permit authorizes a bypass if it allows for essential maintenance and does not have the potential to cause violations of limits or other conditions of this permit, or adversely impact public health as determined by Ecology prior to the bypass. The Permittee must submit prior notice, at least ten (10) days before the date of the bypass. The notice must include volume and duration of the bypass.

2. Bypass is unavoidable, unanticipated, and results in noncompliance of this permit.

This permit authorizes such a bypass only if:

- a. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.
- b. No feasible alternatives to the bypass exist, such as:
 - The use of auxiliary treatment facilities.
 - Retention of untreated wastes.
 - Stopping production.
 - Maintenance during normal periods of equipment downtime, but not if the Permittee should have installed adequate backup equipment in the exercise of reasonable engineering judgment to prevent a bypass.
 - Transport of untreated wastes to another treatment facility or preventative maintenance), or transport of untreated wastes to another treatment facility.
- c. The Permittee has properly notified Ecology of the bypass as required in Condition S3.E of this permit.

3. If bypass which is anticipated and has the potential to result in noncompliance with this permit.

- a. The Permittee must notify Ecology at least sixty (60) days before the planned date of bypass. The notice must contain:
 - A description of the bypass and its cause.
 - An analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing.
 - A cost-effectiveness analysis of alternatives including comparative resource damage assessment.
 - The minimum and maximum duration of bypass under each alternative.
 - A recommendation as to the preferred alternative for conducting the bypass.
 - The projected date of bypass initiation.
 - A statement of compliance with SEPA.
 - A request for modification of water quality standards as provided for in WAC 173-201A-410, if an exceedence of any water quality standard is anticipated.
 - Details of the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.
- b. For probable construction bypasses, the Permittee must notify Ecology of the need to bypass as early in the planning process as possible. The Permittee must consider the analysis required above during preparation of the engineering report or facilities plan and plans and specifications and must include these to the extent practical. In cases where the Permittee determines the probable need to bypass early, the Permittee must continue to analyze conditions up to and including the construction period in an effort to minimize or eliminate the bypass.
- c. Ecology will consider the following prior to issuing an administrative order for this type of bypass:
 - If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.
 - If feasible alternatives to bypass exist, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.
 - If the Permittee planned and scheduled the bypass to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, Ecology will approve or deny the request. Ecology will give the public an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Ecology will approve a request to bypass by issuing an administrative order under RCW 90.48.120.

S5. Solid wastes

S5.A. Solid waste handling

The Permittee must handle and dispose of all solid waste material in such a manner as to prevent its entry into state ground or surface water.

S5.B. Leachate

The Permittee must not allow leachate from its solid waste material to enter state waters without providing all known, available, and reasonable methods of treatment, nor allow such leachate to cause violations of the State Surface Water Quality Standards, Chapter 173-201A WAC, or the State Ground Water Quality Standards, Chapter 173-200 WAC. The Permittee must apply for a permit or permit modification as may be required for such discharges to state ground or surface waters.

S5.C. Solid waste control plan

The Permittee must submit all proposed revisions or modifications to the solid waste control plan to Ecology for review and approval at least 30 days prior to implementation. Once approved, the Permittee must comply with any plan modifications. The Permittee must submit an update of the solid waste control plan by **July 1, 2018**. The Permittee must submit a paper copy and an electronic copy (preferably as a PDF).

S6. Application for permit renewal or modification for facility changes

The Permittee must submit an application for renewal of this permit by **March 1, 2019**. The Permittee must submit a paper copy and an electronic copy (preferably as a PDF). Sixty days prior to submitting an application the Permittee must submit a sampling plan for the ASB for Ecology approval (**January 1, 2018**).

The Permittee must also submit a new application or supplement at least one hundred eighty (180) days prior to commencement of discharges, resulting from the activities listed below, which may result in permit violations. These activities include any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility. Sampling required in the application will need a pre-approved sampling plan by Ecology before sampling can occur.

S7. Non-routine and unanticipated discharges

1. Beginning on the effective date of this permit, the Permittee is authorized to discharge wastewater to the ASB on a case-by-case basis if pre-approved by Ecology. Prior to any discharge, the Permittee must contact Ecology **30** days in advance and at a minimum provide the following information:
 - a. The proposed discharge location.
 - b. The nature of the activity that will generate the discharge.
 - c. Any alternatives to the discharge, such as reuse, storage, or recycling of the water.
 - d. The total volume of water it expects to discharge.

- e. Provide the most current tightness test results for conveyance piping from GP-West to the ASB.
 - f. The Permittee must analyze and report the results of the chemical analysis of the water to be discharged. The specification for sampling and testing may be waived if prior testing of the material has been performed and determined to be acceptable for discharge to the ASB. The water shall be analyzed for the following:
 - i. All constituents limited for the Permittee's discharge.
 - ii. Hardness.
 - iii. Any metals that are limited by water quality standards.
 - iv. Dioxins, furans, PCBs.
 - v. And any other parameter deemed necessary by Ecology.
 - g. The date of proposed discharge and the rate at which the water will be discharged, in gallons per minute.
 - h. If the proposed discharge is to a municipal storm drain and is approved by Ecology, the Permittee must notify the municipality of the discharge.
2. All discharges must comply with the effluent limits as established in Condition S1 of this permit, water quality standards, and any other limits imposed by Ecology.
 3. The Permittee must limit the discharge rate, as referenced in subpart 1.f above, so it will not cause erosion of ditches or structural damage to culverts and their entrances or exits.
 4. The discharge cannot proceed until Ecology has reviewed the information provided and has authorized the discharge by letter to the Permittee or by an Administrative Order.
 5. Once approved and if the proposed discharge is to a municipal storm drain, the Permittee must obtain prior approval from the municipality and notify it when it plans to discharge.

S8. Spill control plan

S8.A. Spill control plan submittals and requirements

The Permittee must:

1. Submit to Ecology an update to the existing spill control plan either as needed or by **March 2, 2015**. The Permittee must submit a paper copy and an electronic copy (preferably as a PDF).
2. Review the plan at least annually and update the spill plan as needed.
3. Send changes to the plan to Ecology.
4. Follow the plan and any supplements throughout the term of the permit.

S8.B. Spill control plan components

The spill control plan must include the following:

1. A list of all oil and petroleum products and other materials used and/or stored on-site, which when spilled, or otherwise released into the environment, designate as dangerous waste (DW) or extremely hazardous waste (EHW) by the procedures set forth in WAC 173-303-070. Include other materials used and/or stored on-site which may become pollutants or cause pollution upon reaching state's waters.
2. A description of preventive measures and facilities (including an overall facility plot showing drainage patterns) which prevent, contain, or treat spills of these materials.
3. A description of the reporting system the Permittee will use to alert responsible managers and legal authorities in the event of a spill.
4. A description of operator training to implement the plan.

The Permittee may submit plans and manuals required by 40 CFR Part 112, contingency plans required by Chapter 173-303 WAC, or other plans required by other agencies, which meet the intent of this section.

S9. Stormwater pollution prevention plan

The definitions of terms used in this section are provided in the Industrial Stormwater General Permit. A copy of this document can be found on Ecology's website at the following address: <http://www.ecy.wa.gov/programs/wq/stormwater/industrial/permitdocs/iswgpfinal102109.pdf>

The Permittee must update the current Stormwater Pollution Prevention Plan (SWPPP) for this facility to reflect the most current Industrial Stormwater General Permit.

S9.A. Plan development

The Permittee must develop, implement, and comply with a SWPPP in accordance with the following schedule:

1. Within 90 days from effective date of permit, develop an SWPPP and retain it on-site.
2. Within 9 months from effective date of permit, complete the implementation of *operational BMPs* and applicable *source control BMPs*, as required under this Special Condition, which do not require *capital improvements*.
3. Within 18 months from effective date of permit, complete the implementation of BMPs requiring capital improvements.

The Permittee must implement all the elements of the SWPPP including operational, treatment and source control BMPs, as well as erosion and sediment control BMPs determined necessary.

4. The Permittee must prepare the SWPPP in accordance with the guidance provided in the *Stormwater Management Manual for Western Washington Publication number 12-10-030 August 2012*, which is published by the Department of Ecology and available on Ecology's website at <http://www.ecy.wa.gov/programs/wq/stormwater/manual.html>. The plan must contain the following elements:

- a. An Assessment and description of existing and potential pollutant sources.
- b. A description of the operational BMPs.
- c. A description of selected source-control BMPs.
- d. When necessary, a description of the erosion and sediment control BMPs.
- e. When necessary, a description of the treatment BMPs.
- f. An implementation schedule.

S9.B. General requirements

1. Submission, retention, and availability:

The Permittee must submit a copy of the SWPPP to Ecology for review and comment. If stormwater discharge is to a municipal storm sewer system, submit a copy of the SWPPP to the municipal operator of the storm sewer system. The Permittee must retain the SWPPP on-site, or within reasonable access to the site.

2. Modifications:

The Permittee must modify the SWPPP whenever there is a change in design, construction, operation or maintenance, or personnel which causes the SWPPP to be less effective in controlling the pollutants. Whenever the description of potential pollutant sources or the pollution prevention measures and controls identified in the SWPPP are inadequate, the SWPPP must be modified, as appropriate, within one month (30 days) of such determination. The proposed modifications to the SWPPP must be submitted to Ecology at least 30 days in advance of implementing the proposed changes in the plan unless Ecology approves immediate implementation. The Permittee must provide for implementation of any modifications to the SWPPP in a timely manner.

3. The Permittee may incorporate applicable portions of plans prepared for other purposes. Plans or portions of plans incorporated into a SWPPP become enforceable requirements of this permit.

S9.C. Implementation

The Permittee must conduct four inspections per year - one per quarter (January – March, April – June, July – September, October – December).

S9.D. Plan evaluation

The Permittee must evaluate whether measures to reduce pollutant loadings identified in the SWPPP are adequate and properly implemented in accordance with the terms of the permit or whether additional controls are needed. A record must be maintained summarizing the results of all site inspections and include a certification of whether the facility is in compliance with the plan and in compliance with this permit. The record must identify any incidents of noncompliance.

S9.E. Construction activities

The Permittee must comply with the most current version of the state of Washington Construction Stormwater General Permit (CSGP) when any activity meets the definition of construction as defined in the CSGP special condition S1.B.

A copy of this document can be found on Ecology's website at the following address:
<http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html>

S10. Sediment monitoring

S10.A. Sediment sampling and analysis plan

The Permittee must conduct baseline sediment sampling prior to the next discharge. An exemption may be considered for a discharge pilot study depending upon the volume and duration of the study. The Permittee must submit to Ecology for review and approval a sediment sampling and analysis plan for sediment monitoring 90 days prior to baseline sampling. Within 90 days of ceasing the discharge the Permittee must conduct post-discharge sediment sampling in the same area where baseline sampling was conducted. The Permittee must submit two paper copies and an electronic copy of the sediment sampling plan (preferably as a PDF). The purpose of the plan is to characterize sediment (the nature and extent of chemical contamination and biological toxicity) quality in the vicinity of the Permittee's discharge location. The Permittee must follow the guidance provided in the *Sediment Source Control Standards User Manual, Appendix B: Sediment Sampling and Analysis Plan* (Ecology, 2008). A copy of the manual can be found at:
<https://fortress.wa.gov/ecy/publications/SummaryPages/1209057.html>

S11. Water balance

The Permittee shall develop a water balance for the ASB. At a minimum the following inputs shall be considered:

- Surface elevation measurements of the water taken within the ASB.
- Tide elevations.
- Evaporation rates.
- Precipitation on area tributary to the ASB.
- Non precipitation inputs to ASB.
- Discharges from ASB.

S.11.A Water balance study plan

A study plan shall be submitted to Ecology for approval by **March 2, 2015**. The plan will identify proposed data sources, methods (including proposed time step), a schedule and interim reporting deadlines. Time series of inputs and outputs shall be submitted as digital text files.

S.11.B Water balance study

The final water balance study is due **February 28, 2016**.

GENERAL CONDITIONS

G1. Signatory requirements

1. All applications, reports, or information submitted to Ecology must be signed and certified.
 - a. In the case of corporations, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or
 - The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - In the case of a partnership, by a general partner.
 - In the case of sole proprietorship, by the proprietor.
 - In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.

Applications for permits for domestic wastewater facilities that are either owned or operated by, or under contract to, a public entity shall be submitted by the public entity.

2. All reports required by this permit and other information requested by Ecology must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described above and submitted to Ecology.
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

3. Changes to authorization. If an authorization under paragraph B.2, above, is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph B.2, above, must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.
4. Certification. Any person signing a document under this section must make the following certification:

“I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

G2. Right of inspection and entry

The Permittee must allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

1. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit.
2. To have access to and copy, at reasonable times and at reasonable cost, any records required to be kept under the terms and conditions of this permit.
3. To inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
4. To sample or monitor, at reasonable times, any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G3. Permit actions

This permit may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee) or upon Ecology’s initiative. However, the permit may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR 122.62, 122.64 or WAC 173-220-150 according to the procedures of 40 CFR 124.5.

1. The following are causes for terminating this permit during its term, or for denying a permit renewal application:
 - a. Violation of any permit term or condition.
 - b. Obtaining a permit by misrepresentation or failure to disclose all relevant facts.
 - c. A material change in quantity or type of waste disposal.

- d. A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations and can only be regulated to acceptable levels by permit modification or termination.
 - e. A change in any condition that requires either a temporary or permanent reduction, or elimination of any discharge or sludge use or disposal practice controlled by the permit.
 - f. Nonpayment of fees assessed pursuant to RCW 90.48.465.
 - g. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.
2. The following are causes for modification but not revocation and reissuance except when the Permittee requests or agrees:
- a. A material change in the condition of the waters of the state.
 - b. New information not available at the time of permit issuance that would have justified the application of different permit conditions.
 - c. Material and substantial alterations or additions to the permitted facility or activities which occurred after this permit issuance.
 - d. Promulgation of new or amended standards or regulations having a direct bearing upon permit conditions, or requiring permit revision.
 - e. The Permittee has requested a modification based on other rationale meeting the criteria of 40 CFR Part 122.62.
 - f. Ecology has determined that good cause exists for modification of a compliance schedule, and the modification will not violate statutory deadlines.
 - g. Incorporation of an approved local pretreatment program into a municipality's permit.
3. The following are causes for modification or alternatively revocation and reissuance:
- a. When cause exists for termination for reasons listed in A1 through A7 of this section, and Ecology determines that modification or revocation and reissuance is appropriate.
 - b. When Ecology has received notification of a proposed transfer of the permit. A permit may also be modified to reflect a transfer after the effective date of an automatic transfer (General Condition G7) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new Permittee.

G4. Reporting planned changes

The Permittee must, as soon as possible, but no later than sixty (60) days prior to the proposed changes, give notice to Ecology of planned physical alterations or additions to the permitted facility, production increases, or process modification which will result in:

1. The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b)

2. A significant change in the nature or an increase in quantity of pollutants discharged.
3. A significant change in the Permittee's sludge use or disposal practices. Following such notice, and the submittal of a new application or supplement to the existing application, along with required engineering plans and reports, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this G5. Plan review required.

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications must be submitted to Ecology for approval in accordance with chapter 173-240 WAC. Engineering reports, plans, and specifications must be submitted at least one hundred eighty (180) days prior to the planned start of construction unless a shorter time is approved by Ecology. Facilities must be constructed and operated in accordance with the approved plans.

G5. Compliance with other laws and statutes

Nothing in this permit excuses the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G6. Transfer of this permit

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the Permittee must notify the succeeding owner or controller of the existence of this permit by letter, a copy of which must be forwarded to Ecology.

1. Transfers by Modification

Except as provided in paragraph (B) below, this permit may be transferred by the Permittee to a new owner or operator only if this permit has been modified or revoked and reissued under 40 CFR 122.62(b)(2), or a minor modification made under 40 CFR 122.63(d), to identify the new Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

2. Automatic Transfers

This permit may be automatically transferred to a new Permittee if:

- a. The Permittee notifies Ecology at least thirty (30) days in advance of the proposed transfer date.
- b. The notice includes a written agreement between the existing and new Permittees containing a specific date transfer of permit responsibility, coverage, and liability between them.
- c. Ecology does not notify the existing Permittee and the proposed new Permittee of its intent to modify or revoke and reissue this permit. A modification under this subparagraph may also be minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement.

G7. Reduced production for compliance

The Permittee, in order to maintain compliance with its permit, must control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

G8. Removed substances

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must not be resuspended or reintroduced to the final effluent stream for discharge to state waters.

G9. Duty to provide information

The Permittee must submit to Ecology, within a reasonable time, all information which Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology upon request, copies of records required to be kept by this permit.

G10. Other requirements of 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G11. Additional monitoring

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G12. Payment of fees

The Permittee must submit payment of fees associated with this permit as assessed by Ecology.

G13. Penalties for violating permit conditions

Any person who is found guilty of willfully violating the terms and conditions of this permit is deemed guilty of a crime, and upon conviction thereof must be punished by a fine of up to ten thousand dollars (\$10,000) and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit may incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars (\$10,000) for every such violation. Each and every such violation is a separate and distinct offense, and in case of a continuing violation, every day's continuance is deemed to be a separate and distinct violation.

G14. Upset

Definition – “Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limits if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the Permittee can identify the cause(s) of the upset.
2. The permitted facility was being properly operated at the time of the upset.
3. The Permittee submitted notice of the upset as required in Condition S3.E.
4. The Permittee complied with any remedial measures required under S4.C of this permit.

In any enforcement action the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G15. Property rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

G16. Duty to comply

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G17. Toxic pollutants

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G18. Penalties for tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit must, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two (2) years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment must be a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four (4) years, or by both.

G19. Reporting requirements applicable to existing manufacturing, commercial, mining, and silvicultural dischargers

The Permittee belonging to the categories of existing manufacturing, commercial, mining, or silviculture must notify Ecology as soon as they know or have reason to believe:

1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following “notification levels”:
 - a. One hundred micrograms per liter (100 µg/L).
 - b. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony.
 - c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
 - d. The level established by the Director in accordance with 40 CFR 122.44(f).
2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following “notification levels”:
 - a. Five hundred micrograms per liter (500 µg/L).
 - b. One milligram per liter (1 mg/L) for antimony.
 - c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
 - d. The level established by the Director in accordance with 40 CFR 122.44(f).

G21. Compliance schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than fourteen (14) days following each schedule date.

Appendix A

LIST OF POLLUTANTS WITH ANALYTICAL METHODS, DETECTION LIMITS AND QUANTITATION LEVELS

The Permittee must use the specified analytical methods, detection limits (DLs) and quantitation levels (QLs) in the following table for permit and application required monitoring unless:

- Another permit condition specifies other methods, detection levels, or quantitation levels.
- The method used produces measurable results in the sample and EPA has listed it as an EPA-approved method in 40 CFR Part 136.

If the Permittee uses an alternative method, not specified in the permit and as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.

When the permit requires the Permittee to measure the base neutral compounds in the list of priority pollutants, it must measure all of the base neutral pollutants listed in the table below. The list includes EPA required base neutral priority pollutants and several additional polynuclear aromatic hydrocarbons (PAHs). The Water Quality Program added several PAHs to the list of base neutrals below from Ecology’s Persistent Bioaccumulative Toxics (PBT) List. It only added those PBT parameters of interest to Appendix A that did not increase the overall cost of analysis unreasonably.

Ecology added this appendix to the permit in order to reduce the number of analytical “non-detects” in permit-required monitoring and to measure effluent concentrations near or below criteria values where possible at a reasonable cost.

CONVENTIONAL PARAMETERS

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL)¹ <i>µg/L unless specified</i>	Quantitation Level (QL)² <i>µg/L unless specified</i>
Total Organic Carbon	SM5310-B/C/D		1 mg/L
Total Suspended Solids	SM2540-D		5 mg/L
Total Ammonia (as N)	SM4500-NH3- GH		20
Flow	Calibrated device		
Dissolved oxygen	SM4500-OC/OG		0.2 mg/L
Temperature (max. 7-day avg.)	Analog recorder or use micro-recording devices known as thermistors		0.2° C
pH	SM4500-H ⁺ B	N/A	N/A

NONCONVENTIONAL PARAMETERS

Pollutant & CAS No. <i>(if available)</i>	Recommended Analytical Protocol	Detection (DL)¹ <i>µg/L unless specified</i>	Quantitation Level (QL)² <i>µg/L unless specified</i>
Nitrate-Nitrite (as N)	SM4500-NO3- E/F/H		100
Phosphorus, Total (as P)	SM4500-PE/PF	3	10
Oil and Grease (HEM)	1664A	1,400	5,000
Total Hardness	SM2340B		200 as CaCO ₃

PRIORITY POLLUTANTS

Pollutant & CAS No. <i>(if available)</i>	Recommended Analytical Protocol	Detection (DL)¹ <i>µg/L unless specified</i>	Quantitation Level (QL)² <i>µg/L unless specified</i>
METALS, CYANIDE & TOTAL PHENOLS			
Antimony, Total (7440-36-0)	200.8	0.3	1.0
Arsenic, Total (7440-38-2)	200.8	0.1	0.5
Beryllium, Total (7440-41-7)	200.8	0.1	0.5
Cadmium, Total (7440-43-9)	200.8	0.05	0.25
Chromium (hex) dissolved (18540-29-9)	SM3500-Cr EC	0.3	1.2
Chromium, Total (7440-47-3)	200.8	0.2	1.0
Copper, Total (7440-50-8)	200.8	0.4	2.0
Lead, Total (7439-92-1)	200.8	0.1	0.5
Mercury, Total (7439-97-6)	1631E	0.0002	0.0005
Nickel, Total (7440-02-0)	200.8	0.1	0.5
Selenium, Total (7782-49-2)	200.8	1.0	1.0
Silver, Total (7440-22-4)	200.8	0.04	0.2
Thallium, Total (7440-28-0)	200.8	0.09	0.36
Zinc, Total (7440-66-6)	200.8	0.5	2.5
Cyanide, Total (57-12-5)	335.4	5	10
Cyanide, Weak Acid Dissociable	SM4500-CN I	5	10
Cyanide, Free Amenable to Chlorination (Available Cyanide)	SM4500-CN G	5	10
Phenols, Total	EPA 420.1		50

Pollutant & CAS No. <i>(if available)</i>	Recommended Analytical Protocol	Detection (DL)¹ <i>µg/L unless specified</i>	Quantitation Level (QL)² <i>µg/L unless specified</i>
ACID COMPOUNDS			
2-Chlorophenol (95-57-8)	625	1.0	2.0
2,4-Dichlorophenol (120-83-2)	625	0.5	1.0
2,4-Dimethylphenol (105-67-9)	625	0.5	1.0
4,6-dinitro-o-cresol (534-52-1) (2-methyl-4,6,-dinitrophenol)	625/1625B	1.0	2.0
2,4 dinitrophenol (51-28-5)	625	1.0	2.0
2-Nitrophenol (88-75-5)	625	0.5	1.0
4-nitrophenol (100-02-7)	625	0.5	1.0
Parachlorometa cresol (59-50-7) (4-chloro-3-methylphenol)	625	1.0	2.0
Pentachlorophenol (87-86-5)	625	0.5	1.0
Phenol (108-95-2)	625	2.0	4.0
2,4,6-Trichlorophenol (88-06-2)	625	2.0	4.0

PRIORITY POLLUTANTS (continued)

Pollutant & CAS No. <i>(if available)</i>	Recommended Analytical Protocol	Detection (DL)¹ <i>µg/L unless specified</i>	Quantitation Level (QL)² <i>µg/L unless specified</i>
VOLATILE COMPOUNDS			
Acrolein (107-02-8)	624	5	10
Acrylonitrile (107-13-1)	624	1.0	2.0
Benzene (71-43-2)	624	1.0	2.0
Bromoform (75-25-2)	624	1.0	2.0
Carbon tetrachloride (56-23-5)	624/601 or SM6230B	1.0	2.0
Chlorobenzene (108-90-7)	624	1.0	2.0
Chloroethane (75-00-3)	624/601	1.0	2.0
2-Chloroethylvinyl Ether (110-75-8)	624	1.0	2.0
Chloroform (67-66-3)	624 or SM6210B	1.0	2.0
Dibromochloromethane (124-48-1)	624	1.0	2.0
1,2-Dichlorobenzene (95-50-1)	624	1.9	7.6
1,3-Dichlorobenzene (541-73-1)	624	1.9	7.6
1,4-Dichlorobenzene (106-46-7)	624	4.4	17.6
Dichlorobromomethane (75-27-4)	624	1.0	2.0
1,1-Dichloroethane (75-34-3)	624	1.0	2.0
1,2-Dichloroethane (107-06-2)	624	1.0	2.0
1,1-Dichloroethylene (75-35-4)	624	1.0	2.0
1,2-Dichloropropane (78-87-5)	624	1.0	2.0
1,3-dichloropropene (mixed isomers) (1,2-dichloropropylene) (542-75-6) ³	624	1.0	2.0
Ethylbenzene (100-41-4)	624	1.0	2.0
Methyl bromide (74-83-9) (Bromomethane)	624/601	5.0	10.0
Methyl chloride (74-87-3) (Chloromethane)	624	1.0	2.0
Methylene chloride (75-09-2)	624	5.0	10.0
1,1,2,2-Tetrachloroethane (79-34-5)	624	1.9	2.0
Tetrachloroethylene (127-18-4)	624	1.0	2.0
Toluene (108-88-3)	624	1.0	2.0
1,2-Trans-Dichloroethylene (156-60-5) (Ethylene dichloride)	624	1.0	2.0
1,1,1-Trichloroethane (71-55-6)	624	1.0	2.0
1,1,2-Trichloroethane (79-00-5)	624	1.0	2.0
Trichloroethylene (79-01-6)	624	1.0	2.0
Vinyl chloride (75-01-4)	624/SM6200B	1.0	2.0

PRIORITY POLLUTANTS (continued)

Pollutant & CAS No. <i>(if available)</i>	Recommended Analytical Protocol	Detection (DL)¹ <i>µg/L unless specified</i>	Quantitation Level (QL)² <i>µg/L unless specified</i>
BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)			
Acenaphthene (83-32-9)	625	0.2	0.4
Acenaphthylene (208-96-8)	625	0.3	0.6
Anthracene (120-12-7)	625	0.3	0.6
Benzidine (92-87-5)	625	12	24
Benzyl butyl phthalate (85-68-7)	625	0.3	0.6
Benzo(a)anthracene (56-55-3)	625	0.3	0.6
Benzo(b)fluoranthene (3,4-benzofluoranthene) (205-99-2) ⁴	610/625	0.8	1.6
Benzo(j)fluoranthene (205-82-3) ⁴	625	0.5	1.0
Benzo(k)fluoranthene (11,12-benzofluoranthene) (207-08-9) ⁴	610/625	0.8	1.6
Benzo(r,s,t)pentaphene (189-55-9)	625	0.5	1.0
Benzo(a)pyrene (50-32-8)	610/625	0.5	1.0
Benzo(ghi)Perylene (191-24-2)	610/625	0.5	1.0
Bis(2-chloroethoxy)methane (111-91-1)	625	5.3	21.2
Bis(2-chloroethyl)ether (111-44-4)	611/625	0.3	1.0
Bis(2-chloroisopropyl)ether (39638-32-9)	625	0.3	0.6
Bis(2-ethylhexyl)phthalate (117-81-7)	625	0.1	0.5
4-Bromophenyl phenyl ether (101-55-3)	625	0.2	0.4
2-Chloronaphthalene (91-58-7)	625	0.3	0.6
4-Chlorophenyl phenyl ether (7005-72-3)	625	0.3	0.5
Chrysene (218-01-9)	610/625	0.3	0.6
Dibenzo (a,j)acridine (224-42-0)	610M/625M	2.5	10.0
Dibenzo (a,h)acridine (226-36-8)	610M/625M	2.5	10.0
Dibenzo(a-h)anthracene (53-70-3)(1,2,5,6-dibenzanthracene)	625	0.8	1.6
Dibenzo(a,e)pyrene (192-65-4)	610M/625M	2.5	10.0
Dibenzo(a,h)pyrene (189-64-0)	625M	2.5	10.0
3,3-Dichlorobenzidine (91-94-1)	605/625	0.5	1.0
Diethyl phthalate (84-66-2)	625	1.9	7.6
Dimethyl phthalate (131-11-3)	625	1.6	6.4
Di-n-butyl phthalate (84-74-2)	625	0.5	1.0
2,4-dinitrotoluene (121-14-2)	609/625	0.2	0.4
2,6-dinitrotoluene (606-20-2)	609/625	0.2	0.4

PRIORITY POLLUTANTS (continued)

Pollutant & CAS No. <i>(if available)</i>	Recommended Analytical Protocol	Detection (DL)¹ <i>µg/L unless specified</i>	Quantitation Level (QL)² <i>µg/L unless specified</i>
BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)			
Di-n-octyl phthalate (117-84-0)	625	0.3	0.6
1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	1625B	5.0	20
Fluoranthene (206-44-0)	625	0.3	0.6
Fluorene (86-73-7)	625	0.3	0.6
Hexachlorobenzene (118-74-1)	612/625	0.3	0.6
Hexachlorobutadiene (87-68-3)	625	0.5	1.0
Hexachlorocyclopentadiene (77-47-4)	1625B/625	0.5	1.0
Hexachloroethane (67-72-1)	625	0.5	1.0
Indeno(1,2,3-cd)Pyrene (193-39-5)	610/625	0.5	1.0
Isophorone (78-59-1)	625	0.5	1.0
3-Methyl cholanthrene (56-49-5)	625	2.0	8.0
Naphthalene (91-20-3)	625	0.3	0.6
Nitrobenzene (98-95-3)	625	0.5	1.0
N-Nitrosodimethylamine (62-75-9)	607/625	2.0	4.0
N-Nitrosodi-n-propylamine (621-64-7)	607/625	0.5	1.0
N-Nitrosodiphenylamine (86-30-6)	625	0.5	1.0
Perylene (198-55-0)	625	1.9	7.6
Phenanthrene (85-01-8)	625	0.3	0.6
Pyrene (129-00-0)	625	0.3	0.6
1,2,4-Trichlorobenzene (120-82-1)	625	0.3	0.6

Pollutant & CAS No. <i>(if available)</i>	Recommended Analytical Protocol	Detection (DL)¹ <i>µg/L unless specified</i>	Quantitation Level (QL)² <i>µg/L unless specified</i>
DIOXIN			
2,3,7,8-Tetra-Chlorodibenzo-P-Dioxin (176-40-16)	1613B	1.3 pg/L	5 pg/L

PRIORITY POLLUTANTS (continued)

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL)¹ µg/L unless specified	Quantitation Level (QL)² µg/L unless specified
PESTICIDES/PCBs			
Aldrin (309-00-2)	608	0.025	0.05
alpha-BHC (319-84-6)	608	0.025	0.05
beta-BHC (319-85-7)	608	0.025	0.05
gamma-BHC (58-89-9)	608	0.025	0.05
delta-BHC (319-86-8)	608	0.025	0.05
Chlordane (57-74-9) ⁵	608	0.025	0.05
4,4'-DDT (50-29-3)	608	0.025	0.05
4,4'-DDE (72-55-9)	608	0.025	0.05 ¹⁰
4,4' DDD (72-54-8)	608	0.025	0.05
Dieldrin (60-57-1)	608	0.025	0.05
alpha-Endosulfan (959-98-8)	608	0.025	0.05
beta-Endosulfan (33213-65-9)	608	0.025	0.05
Endosulfan Sulfate (1031-07-8)	608	0.025	0.05
Endrin (72-20-8)	608	0.025	0.05
Endrin Aldehyde (7421-93-4)	608	0.025	0.05
Heptachlor (76-44-8)	608	0.025	0.05
Heptachlor Epoxide (1024-57-3)	608	0.025	0.05
PCB-1242 (53469-21-9) ⁶	608	0.25	0.5
PCB-1254 (11097-69-1)	608	0.25	0.5
PCB-1221 (11104-28-2)	608	0.25	0.5
PCB-1232 (11141-16-5)	608	0.25	0.5
PCB-1248 (12672-29-6)	608	0.25	0.5
PCB-1260 (11096-82-5)	608	0.13	0.5
PCB-1016 (12674-11-2) ⁶	608	0.13	0.5
Toxaphene (8001-35-2)	608	0.24	0.5

- Detection level (DL) or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero as determined by the procedure given in 40 CFR part 136, Appendix B.
- Quantitation Level (QL) also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to (1, 2, or 5) x 10ⁿ, where n is an integer (64 FR 30417).

ALSO GIVEN AS:

The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).

3. 1, 3-dichloropropylene (mixed isomers) – You may report this parameter as two separate parameters: cis-1, 3-dichloropropene (10061-01-5) and trans-1, 3-dichloropropene (10061-02-6).
4. Total Benzofluoranthenes – Because Benzo(b)fluoranthene, Benzo(j)fluoranthene and Benzo(k)fluoranthene co-elute you may report these three isomers as total benzofluoranthenes.
5. Chlordane – You may report alpha-chlordane (5103-71-9) and gamma-chlordane (5103-74-2) in place of chlordane (57-74-9). If you report alpha and gamma-chlordane, the DL/PQLs that apply are 0.025/0.050.
6. PCB 1016 & PCB 1242 – You may report these two PCB compounds as one parameter called PCB 1016/1242.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, Washington 98115

Refer to NMFS No:
NWR-2013-9889

May 24, 2013

Michelle Walker
U.S. Army Corps of Engineers, Seattle District
Regulatory Branch Chief CENSW-OD-RG
Post Office Box 3755
Seattle, Washington 98124-3755

Re: Endangered Species Act Section 7 Concurrence Letter and Magnuson-Stevens Essential Fish Habitat Response for the Port of Bellingham Whatcom Waterway Cleanup in Phase 1 Site Areas; Bellingham Bay; COE No. NWS-2012-1218, Whatcom County, Washington (6th Field HUC:171100020404 North Puget Sound).

Dear Ms. Walker:

On April 1, 2013 the National Marine Fisheries Service (NMFS) received a request from the U.S. Army Corps of Engineers (COE) for a written concurrence that the proposed cleanup action at the Port of Bellingham (Port) is not likely to adversely affect (NLAA) the species listed in Table 1. This consultation is conducted under section 7(a)(2) of the ESA of 1973, as amended (16 U.S.C. 1531, et seq.), and its implementing regulations, 50 CFR Part 402. This response to your request was prepared by NMFS pursuant to section 7(a)(2) of the ESA, implementing regulations at 50 CFR 402, and agency guidance for preparation of letters of concurrence.¹

NMFS also reviewed the proposed action for potential effects on Essential Fish Habitat (EFH) designated under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), including conservation measures and any determination that you made regarding the potential effects of the action. This review was pursuant to section 305(b) of the MSA, implementing regulations at 50 CFR 600.920, and agency guidance for use of the ESA consultation process to complete EFH consultation.² In this case, NMFS concluded that the action would not adversely affect EFH. Thus, consultation under the MSA is not required for this action.

This letter is in compliance with section 515 of the Treasury and General Government Appropriations Act of 2001 (Data Quality Act) (44 U.S.C. 3504 (d) (1) and 3516), and underwent pre-dissemination review using standards for utility, integrity and objectivity.

¹ Memorandum from D. Robert Lohn, Regional Administrator, to ESA consultation biologists (guidance on informal consultation and preparation of letters of concurrence) (January 30, 2006).

² Memorandum from William T. Hogarth, Acting Administrator for Fisheries, to Regional Administrators (national finding for use of Endangered Species Act section 7 consultation process to complete essential fish habitat consultations) (February 28, 2001).



Table 1. Federal Register notices for final rules that list threatened and endangered species, designate CHs, or apply protective regulations to listed species considered in this consultation.

Species	ESU or DPS	Listing Status	Listing Status Reaffirmed	Critical Habitat	Protective Regulations
Chinook salmon (<i>Oncorhynchus tshawytscha</i>)	Puget Sound (PS)	6/28/05 70 FR 37160 Threatened	8/15/11 76FR50448 Threatened	9/02/05 70 FR 52630	6/28/05 70 FR 37160
Steelhead (<i>O. mykiss</i>)	Puget Sound	5/11/07 72FR26722 Threatened	8/15/11 76FR50448 Threatened	Proposed but not within action area 78 FR 2726	9/25/08 73 FR 55451
Yelloweye rockfish (<i>Sebastes ruberrimus</i>)	Puget Sound/ Georgia Basin	4/28/2010 72 FR 2276 Threatened	Not applicable	In development	In development
Canary rockfish (<i>S. pinniger</i>)	Puget Sound/ Georgia Basin	4/28/2010 72 FR 2276 Threatened	Not applicable	In development	In development
Bocaccio (<i>S. paucispinus</i>)	Puget Sound/ Georgia Basin	4/28/2010 72 FR 2276 Endangered	Not applicable	In development	In development
Killer whale (<i>Orcinus orca</i>)	Southern Resident (SR)	Endangered 11/18/2005 70 FR 69903	Reaffirmed 3/8/11	11/29/2006 71 FR 69054	Not applicable to endangered listings; ESA Section 9 applies

Consultation History

The US Army Corps of Engineers (COE) submitted a Biological Evaluation (BE) and Memorandum for Services to the National Marine Fisheries Service (NMFS) for the project referenced above that were received on April 1, 2013. Comments from the Lummi Nation were received on April 15, 2013 and additional project clarification was received on May 9, 2013. Consultation was initiated on May 13, 2013.

A complete record of this consultation is on file at the Washington State Habitat Office in Lacey, Washington.

Description of the Proposed Action and the Action Area

The COE is proposing to issue a permit to the Port to remove contaminated sediments, remove existing creosote-treated and other derelict structures, cap dredged areas with clean materials, and improve nearshore habitats within the Whatcom Waterway, Bellingham, Washington. This cleanup action is being performed in compliance with the requirements of the Model Toxic Control Act and Washington State Sediment Management Standards regulations. The primary contaminants of concern for the Whatcom Waterway site include mercury, phenolic compounds, and polycyclic aromatic hydrocarbons (PAHs). Dredge elutriate testing (DRET) and modified elutriate testing (MET) were conducted to evaluate the potential for dredging to cause acute or chronic effects on fish due to resuspended contaminants. Total and dissolved chemical concentrations of these constituents in DRET and MET samples were either undetected or comparable to ambient background levels found in site water.

Dredging and capping will occur over three locations, the Bellingham Shipping Terminal, the Log Pond, and the Inner Waterway. Over the three sites approximately 158,900 cubic yards of contaminated sediment will be removed and approximately 126,600 cubic yards of clean cap material will be placed (Table 2). Approximately 300 creosote treated timber piles and 505 linear feet of creosote treated timber bulkhead will also be removed from these areas.

Table 2. Dredge Material and Clean Cap Volumes (cubic yards)

Project Component	Inner Waterway	Log Pond	Bellingham Shipping Terminal	Total
Contaminated Dredge Material Removed	76,700	0	82,200	158,900
Clean Cap Material Placed	93,600	18,200	14,800	126,600
Clean Sand	52,800	1,900	12,200	66,900
Clean Gravel	29,500	6,400	1,000	36,900
Clean Cobble	11,300	9,900	1,600	22,800

Shoreline cutback and capping will occur along a portion of the former Georgia Pacific West property. This includes cutting back soil behind an existing creosote-treated timber bulkhead and then capping the cutback slope area. The clarifier, a portion of the existing bulkhead, several creosote-treated timber dolphins, associated wooden and metal structures (catwalk, foam tank, and piping), and shoreline debris will be removed to complete the bank cutback (creating upper intertidal habitat) and capping as part of the proposed project.

Remediation will include extensive removal of existing creosote-treated structures (263 tons) within the Inner Waterway, including existing old creosote-treated timber dolphins, timber piles, and pile stubs; the Chevron Pier; creosote-treated timber bulkheads; the Georgia Pacific clarifier; a foam-suppression tank; pile supported piping and equipment; and a catwalk. Specifically, the following structure removals will occur:

- A total of 13 creosote-treated timber and steel pile dolphins will be removed from the Inner Waterway area using a vibratory hammer. In total, the dolphin removal includes 80 creosote-treated timber piles and 9 steel piles.
- Approximately 340 creosote-treated timber piles or broken pile stubs will be cut or pulled with a vibratory hammer in various locations in the Inner Waterway.
- The 3,600 square foot, creosote-treated timber Chevron Pier and 121 associated creosote-treated piles will be removed. Some of these piling will be cut at the existing mudline before the sediment cap is placed.
- The creosote-treated timber bulkhead along the shoreline of the former Chevron property will be removed. The bulkhead is approximately 165 feet in length and comprised of a 6-inch timber bulkhead, steel tie rods, and approximately 25 creosote treated piles. The structure will be cut at the mudline, tie rods will be cut at the excavation limit, and the timber piles will be cut at or near the mudline.
- The Georgia Pacific clarifier creosote-treated timber bulkhead and associated steel sheetpile wall, bracing, and timber piles will be removed or cut as required to construct a new slope cutback and sediment capped. This bulkhead consists of approximately 275 linear feet of creosote-treated timber bulkhead, 90 linear feet of steel sheetpile bulkhead and steel bracing, and 120 creosote-treated timber piles.

- The concrete clarifier tank located in upland areas adjacent to the clarifier bulkhead will be removed. Removing the clarifier consists of demolishing approximately 310 cubic yards of concrete clarifier wall and approximately 115 cubic yards of the 8-inch concrete clarifier slab. The remaining slab will be core-drilled with approximately 50 holes to allow for drainage. The remaining void will be filled with bank cutback soil or crushed concrete to bring the site to grade.
- A foam tank composed of approximately 360 square feet of creosote-treated timber and 175 linear feet of large diameter fiberglass reinforced pipe will be demolished. The timber foam tank will be demolished down to the top of an existing concrete footing (approximately elevation minus 2 feet MLLW) and the existing piping will be cut and capped at the shoreline and removed.
- A 390-square-foot treated timber catwalk supported by 16 creosote-treated piles will be demolished. The timber walkway will be removed with heavy equipment and the timber piles will be removed in their entirety using a vibratory hammer. The timber catwalk will be replaced with a 40 feet long by 4 feet wide steel or aluminum grated catwalk. The steel/aluminum catwalk will be anchored to the former G-P Dock and extend east to the replacement mooring dolphin. The catwalk will be affixed to the replacement mooring dolphin on the south shoreline by an approximately 5-foot by 5-foot steel platform attached to the top of the mooring dolphin. Concrete rubble and other debris will be removed from the shoreline in certain areas as necessary to prepare the surface for capping. In addition to the removal of creosote-treated structures, extensive manmade debris will be removed from the Central Waterfront areas.
- The existing 20-foot wide by 60-foot long barge ramp at the Maple Street bulkhead will be removed to excavate contaminated soil present in the existing ramp footprint, and the ramp cavity will be backfilled and sealed to eliminate a migration pathway for potentially contaminated groundwater. The Port will replace the existing ramp with a temporary ramp at the shoreline of the former Chevron Property, approximately 100 feet west of the existing ramp location.

Within the Whatcom Waterway, approximately 13 dolphins will be replaced, each consisting of a monopole 30-inch steel pile or smaller diameter or a 2- to 3-pile dolphin of both plumb and battered piles, or a mix of these types with individual piles of 24 inches in diameter or less. Five steel replacement mooring piles (24 inches in diameter or less) will be installed along the northern portion of the Central Waterfront shoreline and adjacent to the Meridian-Pacific property, to replace the 10 creosote-treated timber piles that will be removed.

In summary, the net environmental effects of the Project include:

- Removing up to 158,900 cubic yards of contaminated sediment.
- Placing up to 126,600 cubic yards of clean capping and residuals management materials to prevent potential erosion and recontamination.
- Removing approximately 263 tons of creosote-treated timber (e.g., piling and bulkheads) from Whatcom Waterway.
- Removing manmade debris from 46,950 square feet of shoreline and intertidal areas within the Waterway, including concrete waste, asphalt rubble, and other miscellaneous debris.

- Providing a net reduction of more than 4,300 square feet of overwater cover through removal of unused existing structures.
- Eliminating existing vertical bulkheads and providing new slopes at slopes of 2H:1V or flatter in various areas within the Waterway.
- Increasing the quantity and quality of intertidal and shallow subtidal habitat area (1.12 acres) and providing significant habitat improvements for a variety of fish and invertebrate species including endangered or threatened species.

The project is scheduled to be completed within one or two construction seasons. All in-water work will occur from August 1 through March 14 when it is least likely that ESA-listed species will be present. Dredging of contaminated sediments and impact proofing of piles are restricted to August 1 to February 15 to further minimize effects.

The action area is located in the industrial portion of the Bellingham waterfront and encompasses an area 300 feet from impact pile driving or dredging to define the extent of any possible elevated sound or water quality effects.

Effects of the Action

For purposes of the ESA, “effects of the action” means the direct and indirect effects of an action on the listed species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action (50 CFR 402.02). The applicable standard to find that a proposed action is NLAA for listed species or critical habitat is that all of the effects of the action are expected to be discountable, insignificant, or completely beneficial.³ Beneficial effects are contemporaneous positive effects without any adverse effects to the species. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those extremely unlikely to occur.

The City of Bellingham has conducted surveys of spawning salmon in Whatcom Creek, which drains into the Whatcom Waterway, since 1999 when a major gas line explosion killed all aquatic life in three miles of the creek. In 2000 and 2001, nearly 100 Chinook salmon per year were observed spawning in the burn zone. In 2002, few Chinook were observed, but 92 chum were counted within the burn zone. Even though extensive habitat restoration has occurred, since 2002, less than ten Chinook, steelhead or chum have been observed in any year during spawning surveys (R2, 2009).

The effects to water quality, such as increased contaminants and suspended sediment, will be localized and temporary and will return to preconstruction conditions following the cessation of activity. Pre-dredge testing has indicated that contaminants are expected to be undetected or near background levels during dredging. In addition, a water quality monitoring plan has been developed with the Department of Ecology, along with appropriate Best Management Practices (BMPs) to prevent potential water quality impacts during construction. Little, if any, water quality effects are predicted for these contaminants. Therefore effects from elevated turbidity or contaminants during dredging are expected to be insignificant.

³ U.S. Fish and Wildlife Service and National Marine Fisheries Service. 1998. Endangered Species Act consultation handbook: procedures for conducting section 7 consultations and conferences. March. Final. P. 3-12.

Approximately 13, 30-inch and 5, 24-inch steel piles are proposed to be installed. It is possible that, instead of the 30-inch monopoles for the dolphins, the applicant will install 26 to 39, 24-inch steel pilings (2-3 piles per dolphin). All piles will be driven with a vibratory hammer to the greatest extent possible, although impact "proofing" may be necessary. The type and intensity of the underwater sounds produced by pile driving depend on a variety of factors, including, but not limited to, the type and size of the pile, the firmness of the substrate and depth of water into which the pile is being driven, and the type and size of the pile-driving hammer. In general, driving steel piles with an impact hammer appears to generate pressure waves that are more harmful than those generated by impact-driving of concrete or wood piles, or by vibratory installation of any type of pile. No fish-kills, or other adverse effects, have been documented from the use of vibratory hammers, suggesting that the sound pressure levels produced by vibratory driving (i.e., continuous, primarily low frequency, sound with a relatively slow rise time) are less of a risk than those from impact driving (i.e., impulsive, high frequency sound with a rapid rise time). Based on this, the direct effects of sounds from vibratory pile driving would be discountable to ESA-listed salmonids.

If proofing is required it would consist of approximately 50 strikes per pile occurring within one minute. Sound attenuation (bubble curtain) will be used during all impact driving. The noise attenuation from a bubble curtain can vary considerably from site to site but tests by the Washington State Department of Transportation (Sexton, 2007) reported 10 dB of peak amplitude attenuation for the average of 24 strikes with the bubble curtain off and 257 strikes with the bubble curtain on to drive a 36-inch diameter pile at the Anacortes Ferry Terminal in Anacortes, Washington. The NMFS finds this estimate to be reasonable. In addition, no adverse effects to aquatic species were noted during the Anacortes Ferry Terminal construction. The use of bubble curtains appear to not only lower the sound level, but also modify the rise time to sound waves. Reyff (2009) indicated that biologists in California have not detected any mortality during multiple pile driving activities where properly installed bubble curtains have been used. Based on the seasonal timing, the use of sound attenuation, the short duration of impact driving per pile, and the extremely low likelihood of use of the waterway for migration, the direct effects of sounds from pile installation would be discountable to ESA-listed salmonids.

Long term beneficial effects associated with the proposed project include the removal of 158,000 cubic yards of contaminated sediments, 263 tons of creosote-treated timber, and 46,950 square feet of man-made debris. In addition, 4,300 square feet of over water coverage and existing bulkheads would be eliminated and over 1 acre of new intertidal and shallow subtidal habitat would be created.

Rockfish fertilize their eggs internally and the young are extruded as larvae. Rockfish larvae are pelagic, often occupying the upper portion of the water column near floating algae, detached seagrass, and kelp. Juvenile bocaccio and canary rockfish settle onto shallow nearshore water in rocky or cobble substrate that support kelp at 3 to 6 months of age, and move to progressively deeper waters as they grow (Love et al., 1991, Love et al., 2002). Juvenile yelloweye rockfish do not typically occupy intertidal waters and shallow habitats (Love et al., 1991) and are very unlikely to occur in the action area. Adult yelloweye rockfish, canary rockfish and bocaccio typically occupy waters deeper than 120 feet (Love et al., 2002) and are very unlikely to occur

within the action area because the water is less than approximately 60 feet deep. Therefore potential effects of the action to juvenile and adult rockfishes are discountable.

Larval yelloweye rockfish, canary rockfish, or bocaccio could occur within the action area; although they are readily dispersed by currents after they are born, making the concentration or probability of presence of larvae in any one location extremely small and therefore discountable. In the unlikely event that any life-stage of ESA-listed rockfish is present within the action area during pile driving, the effects would be insignificant because water quality effects will be short-term and localized and the use of sound attenuation devices will attenuate the sound pressure below harmful levels within a short distance of the work site. Therefore potential effects of the action to juvenile and adult rockfishes are insignificant.

The Whale Museum manages a long-term database of SR killer whale sightings and geospatial locations in inland waters of Washington. While these data are predominantly opportunistic sightings from a variety of sources (public reports, commercial whale watching, Soundwatch, Lime Kiln State Park land-based observations, and independent research reports), SR killer whales are highly visible in inland waters, and widely followed by the interested public and research community. The dataset does not account for level of observation effort by season or location; however, it is the most comprehensive long-term dataset evaluate broad scale habitat use by SR killer whales in inland waters. For these reasons, NMFS relies on the number of past sightings to assess the likelihood of SR killer whale presence in the project area. A review of this dataset from the years 1990 and 2008 indicates that SR killer whales have not been observed in the project vicinity during the months that in-water construction is proposed. Therefore, the likelihood of injury or disturbance is discountable because it is reasonably certain that SR killer whales will not be in the action area during pile driving.

Critical habitat consists of six Primary Constituent Elements (PCEs) for the PS Chinook salmon Evolutionary Significant Unit, of which one has been determined to be at the action area.

- PCE 5 includes nearshore marine areas free of obstruction with water quality and quantity conditions and forage, including aquatic invertebrates and fishes, supporting growth and maturation; and natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, and side channels.

The NMFS analyzed the potential impacts of the project on PS Chinook salmon critical habitat and determined that the effects will be discountable. Potential short term construction-related adverse effects of the action include temporary reduction in water quality resulting in disturbance of the water column and its associated forage. Water quality will return to pre-construction conditions within hours following the in-water work. The proposed project is not anticipated to cause a barrier to migration or alter production of prey resources within the action area, or increase the risk of predation upon listed species. Removal of contaminated sediments, intertidal debris, and creosote piles will have long-term benefits for benthic production and the marine shoreline.

Critical habitat for SR killer whales was designated in three specific areas: 1) Summer Core Area in Haro Strait and waters around the San Juan Islands; 2) Puget Sound; and 3) the Strait of Juan

de Fuca on November 29, 2006 (71 FR 69054). Critical habitat includes approximately 2,560 square miles of Puget Sound, excluding areas with water less than 20 feet deep relative to extreme high water. The PCEs for SR killer whale critical habitat are: (1) Water quality to support growth and development; (2) prey species of sufficient quantity, quality, and availability to support individual growth, reproduction and development, as well as overall population growth; and (3) passage conditions to allow for migration, resting, and foraging.

Sound generated from vibratory pile driving will enter critical habitat in the action area and could affect passage if SR killer whales were present. Critical habitat will not be degraded because SR Killer whales are not expected to be exposed during pile driving. Noise levels will dissipate and return to preconstruction conditions immediately after vibratory pile driving has ceased and therefore; the potential for adverse effects on critical habitat function is discountable.

Conclusion

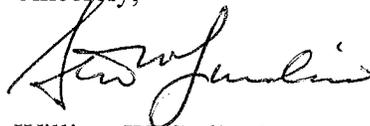
Based on this analysis, NMFS concludes that all effects of the proposed action are NLAA for the subject ESA-listed species and ESA-designated critical habitats.

Reinitiation of Consultation

Reinitiation of consultation is required and shall be requested by the Federal agency, or by NMFS, where discretionary Federal involvement or control over the action has been retained or is authorized by law and (1) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (2) the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this concurrence letter; or if (3) a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16), with the exception of PS steelhead critical habitat. Critical habitat for PS steelhead was proposed for designation in the Federal Register on January 14, 2013. The action area was not included in the proposed designation. If critical habitat for PS steelhead is designated, it is not necessary to re-initiate consultation on this project regardless of whether or not the action area is included in the final designation because the project elements that reduce effects to Chinook critical habitat are also applicable to steelhead habitat. This concludes the ESA portion of this consultation.

Please direct questions regarding this letter to Janet Curran of the Washington Habitat Conservation office at (206)526-4452 or janet.curran@noaa.gov.

Sincerely,



WWS
William W. Stelle, Jr.
Regional Administrator

cc: Randel Perry, COE
Mike Stoner, Port of Bellingham

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United States Department of the Interior



FISH AND WILDLIFE SERVICE

Washington Fish and Wildlife Office
510 Desmond Dr. SE, Suite 102
Lacey, Washington 98503

JUN 26 2013

In Reply Refer To:
0IEWF00-2013-1-0223

Michelle Walker, Chief Regulatory Branch
Seattle District, U.S. Army Corps of Engineers
ATTN: Regulatory Branch (Perry)
P.O. Box 3755
Seattle, Washington 98124-3755

Dear Ms. Walker:

Subject: Port of Bellingham Whatcom Waterway Cleanup

This is in response to your letter and attached Biological Evaluation (BE), for the proposed Whatcom Waterway Cleanup at the Port of Bellingham (Port) located in Bellingham Bay, Whatcom County, Washington. Your letter, the Memorandum for the Services, and the BE were received in our office on April 1, 2013. Additional project clarification was received on May 9 and June 14, 2013. Consultation was initiated on June 14, 2013. The letter requests our concurrence with your finding that the project "may affect, but is not likely to adversely affect" bull trout (*Salvelinus confluentus*), designated critical habitat for the bull trout, and marbled murrelet (*Brachyramphus marmoratus*). This request was submitted in accordance with section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Description of the Proposed Action

The U.S. Army Corps of Engineers (Corps) is proposing to issue a permit to the Port to remove contaminated sediments, remove existing creosote-treated piles and other derelict structures, cap dredged areas with clean materials, and to improve nearshore habitats within the Whatcom Waterway. This cleanup action is being performed in compliance with the requirements of the Washington State Model Toxic Control Act and Sediment Management Standards regulations. The primary contaminants of concern for the Whatcom Waterway site include mercury, phenolic compounds, and polycyclic aromatic hydrocarbons. Dredge elutriate testing and modified elutriate testing were conducted to evaluate the potential for dredging to lead to acute or chronic

effects on fish associated with exposure to resuspended contaminants. Results indicated that total and dissolved chemical concentrations of these constituents in the samples were either undetected or comparable to ambient background levels found in site water; therefore, little or no measurable short-term water quality effects are predicted for these contaminants during dredging. In addition, a water quality monitoring plan has been developed with the Washington State Department of Ecology, along with appropriate Best Management Practices to prevent potential water quality impacts during construction.

Dredging and capping will occur at three sites: 1) the Bellingham Shipping Terminal, 2) the Log Pond, and 3) the Inner Waterway. Over the three sites approximately 158,900 cubic yards (cy) of contaminated sediment will be removed and approximately 126,600 cy of clean cap material will be placed (Table 1). Approximately 300 creosote-treated timber piles and 505 linear feet (lf) of creosote-treated timber bulkhead will be removed from these areas and properly disposed of.

Table 1. Dredge Material and Clean Cap Volumes (cubic yards)

Project Component	Inner Waterway	Log Pond	Bellingham Shipping Terminal	Total
Contaminated Dredge Material Removed	76,700	0	82,200	158,900
Clean Cap Material Placed	93,600	18,200	14,800	126,600
Clean Sand	52,800	1,900	12,200	66,900
Clean Gravel	29,500	6,400	1,000	36,900
Clean Cobble	11,300	9,900	1,600	22,800

Shoreline cutback and capping will occur along a portion of the former Georgia Pacific West property. This includes cutting back soil behind an existing creosote-treated timber bulkhead and then capping the cutback slope area. The clarifier, a portion of the existing bulkhead, several creosote-treated timber dolphins, associated wooden and metal structures (catwalk, foam tank, and piping), and shoreline debris will be removed to complete the bank cutback and capping as part of the proposed project.

Remediation will include extensive removal of existing creosote-treated structures (263 tons) within the Inner Waterway, including existing old creosote-treated timber dolphins, timber piles, and pile stubs; the Chevron Pier; creosote-treated timber bulkheads; the Georgia Pacific clarifier; a foam-suppression tank; pile supported piping and equipment; and a catwalk. Specifically, the following structures will be removed:

- A total of 13 creosote-treated timber and steel pile dolphins will be removed from the Inner Waterway area using a vibratory hammer. In total, the dolphin removal includes 80 creosote-treated timber piles and 9 steel piles.
- Approximately 340 creosote-treated timber piles or broken pile stubs will be cut or pulled with a vibratory hammer in various locations in the Inner Waterway.
- The 3,600 square-foot creosote-treated timber Chevron Pier and 121 associated creosote-treated piles will be removed. Some of these pilings will be cut at the existing mudline before the sediment cap is placed.

- The creosote-treated timber bulkhead along the shoreline of the former Chevron property will be removed. The bulkhead is approximately 165 ft in length and comprised of a 6-inch timber bulkhead, steel tie rods, and approximately 25 creosote-treated piles. The structure will be cut at the mudline, tie rods will be cut at the excavation limit, and the timber piles will be cut at or near the mudline.
- The creosote-treated timber bulkhead along the shoreline of the former Chevron property will be removed. The bulkhead is approximately 165 ft in length and comprised of a 6-inch thick timber bulkhead, steel tie rods, and approximately 25 creosote-treated piles. The structure will be cut at the mudline, tie rods will be cut at the excavation limit, and the timber piles will be cut at or near the mudline.
- The Georgia Pacific creosote-treated timber bulkhead and associated steel sheet pile wall, bracing, and timber piles will be removed or cut as required to construct a new slope cutback and sediment capped. This bulkhead consists of approximately 275 lf of creosote-treated timber bulkhead, 90 lf of steel sheet pile bulkhead and steel bracing, and 120 creosote-treated timber piles.
- The concrete clarifier tank located in upland areas adjacent to the clarifier bulkhead will be removed. Removing the clarifier consists of demolishing approximately 310 cy of concrete wall and approximately 115 cy of the 8-inch concrete slab. The remaining slab will be core-drilled with approximately 50 holes to allow for drainage. The void left after the clarifier components are removed will be filled with bank cutback soil or crushed concrete to bring the site to grade.
- A foam tank composed of approximately 360 square feet (ft²) of creosote-treated timber and 175 lf of large diameter fiberglass reinforced pipe will be demolished. The timber foam tank will be demolished down to the top of an existing concrete footing (approximately elevation minus 2 ft mean lower low water) and the existing piping will be cut and capped at the shoreline and removed.
- A 390-square-foot treated timber catwalk supported by 16 creosote-treated piles will be demolished. The timber walkway will be removed with heavy equipment and the timber piles will be removed in their entirety using a vibratory hammer. The timber catwalk will be replaced with a 40-foot-long by 4-foot-wide steel or aluminum grated catwalk. The steel/aluminum catwalk will be anchored to the former Georgia Pacific Dock and extend east to the replacement mooring dolphin. The catwalk will be affixed to the replacement mooring dolphin on the south shoreline by an approximately 5-foot by 5-foot steel platform attached to the top of the mooring dolphin.
- Concrete rubble and other debris will be removed from the shoreline in certain areas as necessary to prepare the surface for capping. In addition to the removal of creosote-treated structures, extensive manmade debris will be removed from the Central Waterfront areas.

- The existing 20-foot-wide by 60-foot-long barge ramp at the Maple Street bulkhead will be removed to excavate contaminated soil present in the existing ramp footprint, and the ramp cavity will be backfilled and sealed to eliminate a migration pathway for potentially contaminated groundwater. The Port will replace the existing ramp with a temporary ramp at the shoreline of the former Chevron Property, approximately 100 ft west of the existing ramp location.

Within the Whatcom Waterway, approximately 13 dolphins will be replaced, each consisting of a monopole 30-inch steel pile. Five mooring piles and 12 fender piles will be replaced with the same number of 18-inch diameter steel piles. All piles will be driven with a vibratory hammer to the greatest extent possible. Proofing may be required and would consist of approximately 50 strikes per pile occurring within one minute. Sound attenuation (approved bubble curtain using Service-approved specifications/performance standards) will be used during all impact driving.

In summary, the net environmental effects of the project include:

- Removing up to 158,900 cy of contaminated sediment.
- Placing up to 126,600 cy of clean capping and residuals management materials to prevent potential erosion and recontamination.
- Removing approximately 263 tons of creosote-treated timber (e.g., piling and bulkheads) from Whatcom Waterway. Creosote-treated timber will be cut up and disposed of at an approved landfill.
- Removing man-made debris from 46,950 ft² of shoreline and intertidal areas within the Waterway, including concrete waste, asphalt rubble, and other miscellaneous debris.
- Providing a net reduction of more than 4,300 ft² of overwater cover through removal of unused existing structures.
- Eliminating existing vertical bulkheads and providing new slopes at slopes of 2H: 1V or flatter in various areas within the Waterway.
- Increasing the quantity and quality of intertidal and shallow subtidal habitat area and providing significant habitat improvements and habitat connectivity for a variety of fish and invertebrate species including endangered or threatened species.

The project is scheduled to be completed within one season. All in-water work will occur from August 1 through March 14 when it is least likely that listed species will be present. Dredging of contaminated sediments and impact proofing of piles are restricted to August 1 to February 15 to further minimize effects.

Bull Trout

In northern Puget Sound, bull trout occur in the Nooksack, Skagit, Stillaguamish, and Snohomish River core areas and nearshore marine environment. The closest spawning population is in the Nooksack River, which enters Bellingham Bay approximately four miles from the project site. Bull trout use of the marine environment is primarily seasonal and linked to prey abundance and spawning migrations. The Water Resource Inventory Area 1 salmonid Recovery Plan notes that out-migrating juvenile bull trout have been caught in the lower Nooksack River smolt trap from early April to late August. Juveniles have been caught in the lower mainstem Nooksack River from early April through mid-July and would be expected in nearshore marine areas in and near Bellingham Bay during that timeframe. Although they have been documented in the estuaries and nearshore marine areas of northern Puget Sound all months of the year, they are most commonly found in marine waters during the spring and early summer, after which the adults return to their natal waters in late summer and fall to spawn.

The City of Bellingham has conducted surveys of spawning salmon in Whatcom Creek, which drains into the Whatcom Waterway, since 1999 when a major gas line explosion killed all aquatic life in three miles of the creek. In 2000 and 2001, nearly 100 Chinook salmon (*Oncorhynchus tshawytscha*) per year were observed spawning in the burn zone. In 2002, few Chinook were observed, but 92 chum salmon (*Oncorhynchus keta*) were counted within the area where the explosion occurred three years prior. Even though extensive habitat restoration has occurred, since 2002, fewer than ten Chinook, steelhead (*Oncorhynchus mykiss*) or chum were observed in any year during spawning surveys conducted in Whatcom Creek. No bull trout were observed in Whatcom Creek during these surveys (R2, 2009). Based on the geographic location within the Whatcom Waterway and the degraded baseline environmental conditions which lack an abundance of prey species, we expect that bull trout use the action area infrequently and it is extremely unlikely that exposure would occur within the project area during the approved work window.

The proposed project would result in the replacement of approximately 13, 30-inch and 17, 18-inch diameter steel piles. All piles will be vibrated in to the greatest extent possible. If an impact hammer is used to proof the piles, sound attenuation (bubble curtain and block) will be used to minimize effects. Should proofing be necessary, it would be limited to one minute per pile or 50 strikes.

The U.S. Fish and Wildlife Service (Service) calculated the distances to specific thresholds for the increased elevated underwater sound pressure levels associated with unattenuated proofing of steel piles (impact pile driving). Based on these calculations, the largest area of potential injury (17, 18-inch diameter piles/ per day) for bull trout is approximately 544 ft (166 meters). For 4, 30-inch diameter steel piles per day the area of potential injurious unattenuated sound would be 446 ft (136 meters). If the bubble curtain achieves 10 dB attenuation, the distance and likelihood of exposure to potential injury is reduced to 118 ft (36 meters) for 18-inch piles and to 95 ft (29 meters) for 30-inch piles. The use of bubble curtains appears to not only lower the sound level, but also modify the rise time to sound waves. Reyff (2009) indicated that biologists in California did not observe any mortality during multiple pile driving activities where properly installed bubble curtains have been used. In addition, all elevated sound levels will be contained within the industrial portion of the Whatcom Waterway where bull trout would be unlikely to forage

because of degraded habitat and limited prey resources. Based on the seasonal timing, the use of sound attenuation, small area of potential injury, short duration of impact pile driving, and the extremely low likelihood of bull trout being in this area during construction, it is extremely unlikely that bull trout will be exposed to injurious sound pressure levels. Therefore, the direct effects of impact pile installation on bull trout are considered discountable.

Turbidity and possible resuspension of contaminated sediments will be confined to a small area and if present, is expected to quickly dissipate either through quickly dropping out of the water column, if sandy material, or being diluted by tidal flow. Further, any elevations in turbidity generated by dredging will be similar to the variations that occur normally within the environmental baseline of the marine nearshore, which are regularly subject to strong winds and currents that generate suspended sediments.

There are no documented Pacific herring (*Clupea harengus pallasii*), sand lance (*Ammodytes hexapterus*), or surf smelt (*Hypomesus pretiosus*) spawning areas in the construction areas. Because the project is not expected to result in measurable impacts to forage fish populations, indirect effects of the action on bull trout through their prey resources are considered insignificant.

Designated Bull Trout Critical Habitat

The Service designated critical habitat for the Coastal-Puget Sound bull trout on September 26, 2005 (70 FR 56212). On October 18, 2010, the Service revised the 2005 critical habitat designation (75 FR 63898) based on extensive review of the previous critical habitat proposals and designation, as well as new information received during the 2010 public review process. The final rule identified nine primary constituent elements (PCEs) essential for the conservation of bull trout.

PCE 1. Springs, seeps, groundwater sources, and subsurface water connectivity {hyporheric flows} to contribute to water quality and quantity and provide thermal refugia.

The proposed action would not include any activities that would affect springs, seeps, groundwater sources, and subsurface water connectivity in the action area. Therefore, no effects are anticipated to this PCE.

PCE 2. Migration habitats with minimal physical, biological, or water quality impediments between spawning, rearing, overwintering, and freshwater and marine foraging habitats, including but not limited to permanent, partial, intermittent, or seasonal barriers.

The project will result in temporary, short-term elevated sound pressure levels that will extend approximately 544 ft (166 meters) into designated critical habitat. The proposed project will not result in a measurable change to the migratory habitats within the project action area. Installation of the steel piles will have temporary effects with impact pile driving occurring for less than one minute per pile. Increased sound pressure levels may result in

temporary avoidance of the project site but will not preclude bull trout migration within the action area during and after project implementation. Therefore, effects of the proposed project on this PCE are considered insignificant.

PCE 3. *An abundant food base, including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish.*

No documented or potential forage fish spawning areas exist within the action area. The proposed action may impact the food base of bull trout through a small reduction of benthic prey individuals; however, temporary impacts to habitat and bull trout prey resources will not disrupt normal bull trout behaviors (feeding, moving, and sheltering) and will not measurably impair the function of this PCE. Over the long-term, the proposed action will improve the health of the benthic community and bull trout prey base through removal of creosote-treated pilings and contaminated sediments. Because the proposed action will not impact forage fish spawning habitat or measurably alter habitat conditions for macroinvertebrates or benthic organisms, effects to this PCE are considered insignificant.

PCE 4. *Complex river, stream, lake, reservoir, and marine shoreline aquatic environments, and processes that establish and maintain these aquatic environments, with features such as large wood, side channels, pools, undercut banks and unembedded substrates, to provide a variety of depths, gradients, velocities, and structure.*

The aquatic habitat in the action areas of the projects generally does not contain complex shoreline environments. The Whatcom Waterway is not properly functioning due to the degraded industrial condition of the nearshore area including over-steepened banks, bulkheads, presence of large amounts of creosote treated piling and timbers, and large amounts of manmade debris along the waterway's shorelines and intertidal areas. The proposed action would increase shoreline complexity in the action area through the removal of creosote-treated structures and debris and intertidal restoration. Because the project will improve the baseline condition, effects to this PCE are considered beneficial.

PCE 5. *Water temperatures ranging from 2 to 15 °C (36 to 59 °F), with adequate thermal refugia available for temperatures that exceed the upper end of this range. Specific temperatures within this range will depend on bull trout life-history stage and form; geography; elevation; diurnal and seasonal variation; shading, such as that provided by riparian habitat; streamflow; and local groundwater influence.*

The proposed action will have no effect on water temperatures or the current functioning of this PCE.

PCE 8. *Sufficient water quality and quantity such that normal reproduction, growth, and survival are not inhibited.*

The Project would result in short-term water quality impacts through increased turbidity during dredging and pile driving/removal. However, these impacts would be minor, temporary, and localized and are not expected to measurably affect the function of this PCE;

therefore, effects to this PCE are considered insignificant. In addition, removal of creosote-treated timber piles would improve water quality over the long-term by removing on-going sources of contaminants to the water.

PCE 9. Sufficiently low levels of occurrence of nonnative predatory (e.g., lake trout, walleye, northern pike, smallmouth bass); interbreeding (e.g., brook trout); or competing (e.g., brown trout) species that, if present, are adequately temporally and spatially isolated from bull trout.

The proposed action will not result in the introduction of additional nonnative predatory, interbreeding, or competitive species. This PCE does not apply in marine areas.

We, therefore, concur with your "may affect, not likely to adversely affect" determination for bull trout and designated bull trout critical habitat.

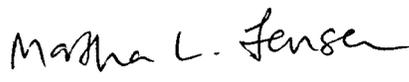
Marbled Murrelets

While marbled murrelets may be present in Bellingham Bay during construction, the Service does not expect marbled murrelets to forage or be present in within the action area of the Whatcom Waterway. The Whatcom Waterway is highly urbanized and foraging opportunities are limited in the industrialized waterway. The Service calculated the distances to specific thresholds for injurious levels of elevated underwater sound pressure levels associated with impact pile driving and all thresholds were calculated to be within 16 ft (5 meters) of the project area. Turbidity from dredging will not extend more than 300 ft from the barge. Because increased sound levels or turbidity will not extend outside the Whatcom Waterway into Bellingham Bay and are confined to a small area around the construction, the Service expects the effects of the proposed action on marbled murrelets to be discountable.

This concludes informal consultation pursuant to the regulations implementing the Endangered Species Act (50 CFR 402.13). This project should be re-analyzed if new information reveals effects of the action that may affect listed species or critical habitat in a manner, or to an extent, not considered in this consultation. The project should also be re-analyzed if the action is subsequently modified in a manner that causes an effect to a listed species or critical habitat that was not considered in this consultation, and/or a new species is listed or critical habitat is designated that may be affected by this project.

If you have any questions regarding this consultation, please contact Shandra O'Haleck at (360)753-9533 or Martha Jensen at (360) 753-9000, of this office.

Sincerely,


for Ken S. Berg, Manager
Washington Fish and Wildlife Office

LITERATURE CITED

- R2 Resource Consultants. 2009. Whatcom Creek: Ten-Years After Summary Report. Prepared for: City of Bellingham Department of Public Works Environmental Resources. Available at:
http://www.ecy.wa.gov/programs/spills/Special_Focus/bellingham_pipeline/ExecutiveSummaryFINAL1.pdf.
- Reyff, J.A. 2009. Reducing Underwater Sounds with Air Bubble Curtains Protecting Fish and Marine Mammals from Pile-Driving Noise. In Research Pays Off. Transportation Research Board, Keck 488, 500 Fifth Street, NW, Washington, DC 20001.

From: [Perry, Randel J NWS](#)
To: [Derek Koellmann](#)
Subject: NWS-2012-1218 (Bellingham, Port of) - CR review (UNCLASSIFIED)
Date: Monday, November 26, 2012 11:29:34 AM

Classification: UNCLASSIFIED
Caveats: NONE

Derek:

Our staff archeologist has completed his review of the proposed Whatcom Waterway clean-up project and determined that no further information is needed and that no consultations with DAHP or Tribes will be required.

Randel Perry
Army Corps of Engineers, Seattle District
Regulatory NW Field Office
(360) 734-3156 (office)
(360) 393-2867 (cell)

Classification: UNCLASSIFIED
Caveats: NONE

**MEMORANDUM OF AGREEMENT
BETWEEN THE U.S. ARMY CORPS OF ENGINEERS
AND
PORT OF BELLINGHAM**

THIS AGREEMENT is entered into this 15th day of January, 201~~4~~⁵, by and between the DEPARTMENT OF THE ARMY (hereinafter the "Army"), represented by the U.S. Army Corps of Engineers, Seattle District (Seattle District) District Commander and the Port of Bellingham (hereinafter "the Port").

WITNESSETH THAT:

WHEREAS, the U.S. Army Corps of Engineers (Corps) constructed, operates and maintains the Bellingham Harbor - Whatcom Waterway Federal Navigation Project in Bellingham, Washington, authorized by the Rivers and Harbors Act of 25 June 1910, as amended.

WHEREAS, the Port as part of its Model Toxic Control Act (MTCA) cleanup of the Whatcom Waterway is proposing to alter the Federal navigation project by dredging contaminated sediments and placing residuals management cover material within the Federal navigation channel. The project area is a component of a larger MTCA cleanup of the Whatcom Waterway;

WHEREAS, prior to making the proposed alteration to Bellingham Harbor- Whatcom Waterway Federal Navigation Channel, 33 U.S.C. 408 (Section 408) requires permission by the Corps; and

WHEREAS, the Port and the Corps have entered into a memorandum of agreement (MOA) on 17 October 2014 pursuant to Section 214 of the Water Resources Development Act (WRDA) of 2000, as amended, to accept funds from the Port to process the Section 408 permission.

NOW THEREFORE, the parties agree as follows:

Article I. Purpose

1. This Memorandum of Agreement (MOA) is entered into by and between the Port of Bellingham and the Corps to set forth roles and responsibilities related to the MTCA cleanup of Whatcom Waterway.

Article II. The Port

1. The Port shall hold its employees and contractors to the terms of this MOA.

2. The Port shall construct the proposed alterations to the Bellingham Harbor – Whatcom Waterway Federal Navigation Project in accordance with the contracted design drawings and analyses dated February 2013, provided by the Port. The Port shall continue to coordinate design drawings with the Corps as the designs are further finalized. Any modifications or substitutions to the approved design drawings and any contractor submittals and shop drawings that may impact the Corps authorized project and/or operations and maintenance responsibilities shall require, before construction proceeds, prior review and approval by the Corps. A decision on the modifications or substitutions shall be made no later than 30 calendar days upon receipt of the revised drawings and supporting documentation. The Corps’ review is limited to the purposes of ensuring the public interest, is environmentally sound, and is legally compliant.
3. The Port is fully responsible for all construction efforts including dredging and placement of the residual management cap, on-going cap maintenance, removal and disposal of all dredged material, post construction monitoring efforts and all associated activities as depicted in the design drawings and analyses dated February 2013
4. The Port is responsible for obtaining all necessary local, state, and federal permits related to the construction, operation and maintenance, and/or removal and disposal of all dredged material associated with the MTCA cleanup project and the Federal navigation channel.
5. The Port shall provide as-built drawings and legal descriptions of the constructed alterations made to the Bellingham Harbor –Whatcom Waterway Federal Navigation Project to the Corps within six months of completion of construction of the alterations to the project.
6. To the extent permitted by law, the Port saves and holds harmless the Corps from all damages to the Bellingham Harbor- Whatcom Waterway Federal Navigation Channel that arises from its MTCA cleanup activities and the activities associated with the construction of the design drawings and analyses as detailed in the “Engineering Design Report: Whatcom Waterway Cleanup In Phase 1 Site Areas” dated February 2013, which includes, but not limited to the dredging and residual management cap placement, cap operation and maintenance, and removal and disposal of dredged material within the Federal navigation channel, as depicted.
7. The Port shall coordinate with the Coast Guard to ensure navigational safety.
8. The Port shall provide notice with the Bellingham Harbor Operations Manager ten days prior to commencing work within the Whatcom Waterway Federal Navigation Channel.
9. Tribal Coordination. The Port shall coordinate and construct all works in accordance with all permits and associated conditions. The Port must contact and coordinate with the Lummi Indian Nation consistent with the terms and conditions of the Nationwide #38 permit

verification letter for the Bellingham Harbor –Whatcom Waterway Federal Navigation Project.

Article III. The Corps

1. The Corps is responsible for real estate access on Corps property and for review of plans, designs, specifications, drawings and other materials as needed related to the MTCA Whatcom Waterway Cleanup Project at Bellingham Harbor, as required.
2. The Corps shall have no responsibility, unless otherwise noted in this MOA, for the construction, cap operations and maintenance, or removal and disposal of dredged material and associated activities as described in the “Engineering Design Report: Whatcom Waterway Cleanup In Phase 1 Site Areas” dated February 2013 or the MTCA cleanup activities. The Corps shall not operate in the role of Contracting Officer’s Representative or other similar role and shall not have oversight capacity beyond that necessary for the review of issues related to the impact of the authorized project features and its operations and maintenance.
3. The Corps shall have no responsibility, unless otherwise noted in this MOA, for the funding of construction, the funding of operations and maintenance, the removal and disposal funding of dredged material, or associated activities.

Article IX. Points of Contact

1. Points of contact for this modification to Bellingham Harbor – Whatcom Waterway Federal Navigation Project are:

Seattle District:
Keely Brown, District Section 408 Coordinator
Phone: (206) 764-3434
Email: Keely.N.Brown@usace.army.mil

John Pell, Navigation Program Manager
Phone: (206) 764-3413
Email: John.L.Pell@usace.army.mil

Port of Bellingham
Michael Stoner, Environmental Director
Phone: (360) 715-7365
Email: Mikes@portofbellingham.com

Article X. Dispute resolution

1. The parties agree that, in the event of a dispute between the parties regarding this MOA, the parties shall use their best efforts to resolve that dispute in an informal fashion through consultation and communication, or other forms of non-binding alternative dispute resolution mutually acceptable to the parties.

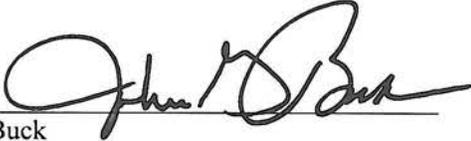
Article XIII. Effective Date, Amendment and Modification

1. This MOA is effective upon the date of the last signature by the parties and remains in effect until project termination.
2. This MOA may be modified or amended only by written, mutual agreement of the parties.

IN WITNESS WHEREOF, the parties hereto have executed this Memorandum of Agreement, which shall become effective upon the date it is signed by the District Engineer.

THE DEPARTMENT OF THE ARMY
GOVERNMENTS

THE PORT OF BELLINGHAM

By 
John Buck
Colonel, U.S. Army
District Commander

By 
Rob Fix
Executive Director
Port of Bellingham

Date: 15 JAN 15

Date: 12/19/14



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
SEATTLE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-3755

January 15, 2015

Regulatory Branch

Port of Bellingham
Mr. John Hergesheimer
P.O. Box 1677
Bellingham, Washington 98227-1677

Reference: NWS-2012-1218
Bellingham, Port of

Dear Mr. Hergesheimer:

We have reviewed your application to excavate and place fill to facilitate a Washington State model Toxic Cleanup Act interim action in Bellingham Bay at Bellingham, Washington. Based on the information you provided to us, Nationwide Permit (NWP) 38, Cleanup of Hazardous and Toxic Waste (Federal Register February 21, 2012, Vol. 77, No. 34), authorizes your proposal as depicted on the enclosed drawings dated April 22, 2013.

In order for this authorization to be valid, you must ensure the work is performed in accordance with the enclosed *NWP 38, Terms and Conditions* and the following special conditions:

a. You must implement and abide by the Endangered Species Act (ESA) requirements and/or agreements set forth in the document titled, "Biological Assessment, Whatcom Waterway Cleanup in Phase 1 Site Areas," dated October 2012, and the addenda dated March 15, 2013, in their entirety. The National Marine Fisheries Service (NMFS) concurred with a finding of "may affect, not likely to adversely affect" based on this document on May 24, 2013 (NMFS Reference Number NWR-2013-9889). The U.S. Fish and Wildlife Service (USFWS) concurred with a finding of "may affect, not likely to adversely affect" based on this document on June 26, 2013 (USFWS Reference Number 01EWF00-2013-1-0223). Both agencies will be informed of this permit issuance. Failure to comply with the commitments made in this document constitutes non-compliance with the ESA and your Corps permit. The USFWS/NMFS is the appropriate authority to determine compliance with ESA.

b. In order to meet the requirements of the Endangered Species Act and protect Puget Sound Chinook, Puget Sound steelhead, and Coastal-Puget Sound bull trout, the permittee may conduct the authorized in-water activities from 1 August through 14 March in any year this permit is valid. No in-water work authorized by this permit shall occur from 15 March through 31 July. The following restrictions apply to the work authorized by this permit.

1. No impact pile driving or proofing shall occur from 16 February through 14 March;
2. Only clean cap, residual management cover, and armor material shall be placed from 16 February through 14 March;
3. No dredging of contaminated sediments shall occur from 16 February through 14 March.

c. Prior to conducting the authorized work, the applicant must contact the Lummi Nation Harvest Management Office (Mr. Ben Starkhouse) at (360) 312-2300 for a pre-construction meeting with the Lummi Nation Harvest Office. At that time, the applicant must provide (a) a draft schedule for the authorized work and (b) the identification and contact information of the applicant's point of contact for use by the Lummi Nation Harvest Management Office. The applicant must work with the Lummi Nation Harvest Office to make schedule modifications to accommodate anticipated tribal fishing operations at the project site. The final schedule must be provided by the applicant to the USACE and the Lummi Nation Harvest Management Office prior to commencing work.

d. During the authorized work the applicant must provide the Lummi Nation Harvest Management Office with (a) written bi-weekly project work notifications (timing and activities anticipated), and (b) written notification of any material delay or modification of the schedule. During the authorized work, the applicant must be available to meet with the Lummi Nation Harvest Management Office at its request.

e. The applicant must implement all monitoring provisions in Appendix G (Compliance Monitoring and Contingency Response Plan including the supplemental provisions contained in the Amendment to Appendix G dated November 2014) and Appendix L (Water Quality Monitoring Plan dated November 2014) of the Whatcom Waterway Engineering Design Report.

f. By accepting this permit, you agree to accept such potential liability for response costs, response activity and natural resource damages as you would have under WA State Model Toxics Control Act, R.C.W. 70.105 (MTCA) absent the issuance of this permit. Further, you agree that this permit does not provide you with any defense from liability under the MTCA. Additionally, you shall be financially responsible for any incremental response costs attributable under MTCA to your activities under this permit in the Whatcom Waterway.

We have reviewed your project pursuant to the requirements of the Endangered Species Act, the Magnuson-Stevens Fishery Conservation and Management Act and the National Historic Preservation Act. We have determined this project complies with the requirements of these laws provided you comply with all of the permit general and special conditions.

The authorized work complies with the Washington State Department of Ecology's (Ecology) Water Quality Certification and the Coastal Zone Management Act requirements for this NWP. No further coordination with Ecology is required.

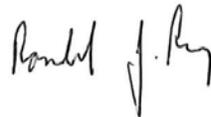
Bellingham Bay is a water of the United States. If you believe this is inaccurate, you may request a preliminary or approved jurisdictional determination (JD). If one is requested, please be aware that we may require the submittal of additional information to complete the JD and work authorized in this letter may not occur until the JD has been completed.

Our verification of this NWP authorization is valid for two years from the date of this letter unless the NWP is modified, reissued, or revoked prior to that date. If the authorized work has not been completed by that date, please contact us to discuss the status of your authorization. Failure to comply with all terms and conditions of this NWP verification invalidates this authorization and could result in a violation of Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act. You must also obtain all State and local permits that apply to this project.

Upon completing the authorized work, you must fill out and return the enclosed *Certificate of Compliance with Department of the Army Permit* form. Thank you for your cooperation during the permitting process. We are interested in your experience with our Regulatory Program and encourage you to complete a customer service survey form. This form and information about our program is available on our website at www.nws.usace.army.mil (select “Regulatory/Permits” and then “Forms”).

A copy of this letter with enclosures will be furnished to Mr. Derek Koellmann of Anchor QEA, LLC at 1605 Cornwall Avenue, Bellingham, Washington 98225. If you have any questions about this letter, please contact me at (360) 734-3156 or via email at randel.j.perry@usace.army.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "Randel J. Perry". The signature is written in a cursive style with a vertical line extending downwards from the end.

Randel Perry, Project Manager
Regulatory Branch

Enclosures



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
SEATTLE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-3755

July 9, 2015

Regulatory Branch

Port of Bellingham
Mr. John Hergesheimer
Post Office Box 1677
Bellingham, Washington 98227

Reference: NWS-2012-1218
Bellingham, Port of

Dear Mr. Hergesheimer:

In an e-mailed correspondence dated March 18, 2015, you requested a modification to the scope of the work for the referenced Nationwide Permit (NWP) 38 verification issued to you on January 15, 2015. The work authorized was excavation and the placement of fill to facilitate a Washington State model Toxic Cleanup Act interim action in Bellingham Bay (Whatcom Waterway) at Bellingham. You requested a permit modification to revise the scope of work, namely the location of dolphins to be re-installed after cleanup work is done. We have reviewed your request and verified that this NWP still authorizes this project provided you ensure that the work is performed in accordance with the enclosed approved modified plans dated March 17, 2015.

This NWP verification supersedes the verification authorized by this office on January 15, 2015. All other terms and conditions contained in the original NWP verification remain in full force and effect. Our verification of this NWP authorization is valid until March 18, 2017 unless the NWP is modified, reissued, or revoked prior to that date. If the authorized work has not been completed by that date, please contact us to discuss the status of your authorization. Failure to comply with all terms and conditions of this NWP verification invalidates this authorization and could result in a violation of Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act. You must also obtain all State and local permits that apply to this project.

If you have any questions, please feel free to contact me at (360) 734-3156 or via email at randel.j.perry@usace.army.mil.

Sincerely,

A handwritten signature in black ink that reads "Randel J. Perry".

Randel Perry, Project Manager
Regulatory Branch

Enclosure



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
SEATTLE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-3755

February 3, 2016

Regulatory Branch

Port of Bellingham
Mr. John Hergesheimer
Post Office Box 1677
Bellingham, Washington 98227

Reference: NWS-2012-1218
Bellingham, Port of

Dear Mr. Hergesheimer:

In an e-mailed correspondence dated January 15, 2016, your agent, Derek Koelmann, requested a modification to special condition "b" of the referenced Nationwide Permit (NWP) 38 verification issued to you on January 15, 2015 and revised on July 9, 2015. The work authorized was excavation and the placement of fill to facilitate a Washington State model Toxic Cleanup Act interim action in Bellingham Bay (Whatcom Waterway) at Bellingham. You requested a permit modification to revise the scope of work, namely the location of dolphins to be re-installed after cleanup work is done. We have reviewed your request and verified that this NWP still authorizes this project provided you ensure that the work is performed in accordance with the revised special condition as follows:

b. In order to meet the requirements of the Endangered Species Act and protect Puget Sound Chinook, Puget Sound steelhead, and Coastal-Puget Sound bull trout, the permittee may conduct the authorized in-water activities from 1 August through 28 March in any year this permit is valid. No in-water work authorized by this permit shall occur from 29 March through 31 July. The following restrictions apply to the work authorized by this permit.

1. No impact pile driving or proofing shall occur from 16 February through 28 March;
2. Only clean cap, residual management cover, and armor material shall be placed from 16 February through 28 March;
3. No dredging of contaminated sediments shall occur from 2 March through 14 March.

This NWP verification supersedes the verification authorized by this office on January 15, 2015 and July 9, 2015. All other terms and conditions contained in the original NWP verification remain in full force and effect. Our verification of this NWP authorization is valid until March 18, 2017 unless the NWP is modified, reissued, or revoked prior to that date. If the authorized work has not been completed by that date, please contact us to discuss the status of your authorization. Failure to comply with all terms and conditions of this NWP verification invalidates this authorization and could result in a violation of Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act. You must also obtain all State and local permits that apply to this project.

A copy of this letter with enclosures will be furnished to Mr. Derek Koellmann of Anchor QEA, LLC at 1605 Cornwall Avenue, Bellingham, Washington 98225. If you have any questions, please feel free to contact me at (360) 734-3156 or via email at randel.j.perry@usace.army.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "Randel J. Perry". The signature is written in a cursive style with a vertical line extending downwards from the end.

Randel Perry, Project Manager
Regulatory Branch



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, SEATTLE DISTRICT
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-3755

Planning Branch

JAN 15 2015

Mr. Robert Fix
Executive Director
Port of Bellingham
P.O. Box 1677
Bellingham, WA 98227

Dear Mr. Fix:

The U.S. Army Corps of Engineers, Seattle District (Seattle District) has performed a technical evaluation of the proposed alterations to Bellingham Harbor - Whatcom Waterway Federal Navigation Project pursuant to Section 14 of the Rivers and Harbors Act of 1899, 33 USC 408 (Section 408), and grants approval of the Section 408 action.

The approval of the Section 408 action is based upon the technical evaluation of the Whatcom Waterway Model Toxic Control Act Cleanup Project - Phase 1. Seattle District has determined that the designs, specifications, and analyses are adequate to insure the proposed alterations to the Federal project will not impair the usefulness of the authorized navigation project and will not be injurious to the public interest.

The Port of Bellingham is the non-Federal applicant of this Section 408 permit action and therefore must construct, operate, and maintain the project consistent with the signed Memorandum of Agreement (MOA) between the Seattle District and the Port of Bellingham. In addition, the Port of Bellingham should continue to coordinate all final designs and as-builts with the Seattle District and is further responsible for any remedial action(s) needed to correct any deficiency in the design or construction of the requested alterations. A signed copy of the respective MOA is enclosed.

This Section 408 permit approval is separate from the project-associated Nationwide Permit 38 previously requested by the applicant. The verification of such permit will be provided under a separate cover to the Port of Bellingham.

Should you have any questions regarding this evaluation and action, please contact Keely Brown, Section 408 Coordinator, at (206) 764-3434 or keely.n.brown@usace.army.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "John G. Buck". The signature is fluid and cursive, with a large initial "J" and "B".

John G. Buck
Colonel, Corps of Engineers
District Commander

Enclosure



State of Washington

Department of Fish and Wildlife

P.O. Box 1100, 111 Sherman St. (physical address), La Conner, Washington 98257-9612

December 17, 2012

Port of Bellingham
John Hergesheimer
Post Office Box 1677
Bellingham, Washington 98227-1677

SUBJECT: Model Toxic Control Act Substantive Comments – Whatcom Waterway Phase 1 Areas- Whatcom Waterway, Tributary to Bellingham Bay, WRIA 01.9000

Dear Mr. Hergesheimer,

The Washington State Department of Fish and Wildlife (WDFW) appreciates the opportunity to provide the following Model Toxic Control Act Substantive Comments consistent with Chapter RCW 77.55.021 and Chapter WAC 220-110 of the Washington State Hydraulic Code for the Port's proposed cleanup treatments in the Whatcom Waterway Phase 1 Areas.

1. WDFW recognizes and appreciates the substantial effort of the Washington State Department of Ecology (DOE), Port of Bellingham and Anchor QEA to develop and implement treatments in the Whatcom Waterway Phase 1 Areas that effectively remove and/or isolate existing contaminants.
2. WDFW recognizes and appreciates the substantial effort of the Washington State Department of Ecology (DOE), Port of Bellingham and Anchor QEA to manage source control and prevent re-contamination of the Whatcom Waterway Phase 1 Areas.
3. WDFW recognizes and appreciates that the proposed cleanup treatments in the Whatcom Waterway Phase 1 Areas significantly enhance and restore intertidal, shallow subtidal and subtidal habitats beneficial to the fish life in Bellingham Bay and in particular migrating juvenile salmonids.
4. WDFW recognizes that the Best Management Practices (BMPs) proposed in your JARPA, Project Plans and Supporting Documentation are substantially consistent with the requirements of the Chapter RCW 77.55.021 and Chapter WAC 220-110 of the Washington State Hydraulic Code for the protection of fish life in the Whatcom Waterway and that the following substantive comments reiterated these BMPs.

5. The proposed cleanup treatments in the Whatcom Waterway Phase 1 Areas shall be subject to DOE approval.

6. **TIMING LIMITATIONS**

A. Work below the ordinary high water line shall not occur from **March 15** through **July 15** of any year for the protection of migrating juvenile salmonids.

B. Work below the ordinary high water line shall only occur in the dry from **July 16** through **July 31** of any year for the protection of migrating juvenile salmonids.

C. Work below the ordinary high water line is allowed in the dry and in-water from **August 1** through **March 14** of any year.

NOTIFICATION REQUIREMENT

7. The Area Habitat Biologist (AHB) listed below shall be notified of the project start date.

EELGRASS HABITAT

8. The existing eelgrass habitat in the Log Pond area and the Berth 1 area that are susceptible to disturbance by the proposed cleanup treatments shall be buoy marked prior to initiating the cleanup activities in these areas.

9. Impacts to the existing eelgrass habitat in the Log Pond area and the Berth 1 area shall be held to the absolute minimum necessary to successfully implement the proposed cleanup treatments.

DREDGING

10. As described in your JARPA, Plans and Supporting Documentation, a clamshell dredge shall be used for the dredging treatments.

11. Each pass of the clamshell dredge bucket shall be complete.

12. Under no circumstances shall dredged material be stockpiled below the ordinary high water line.

13. The dredging treatments shall achieve the target bottom depths described and illustrated in your JARPA, Project Plans and Supporting Documents. Changes to the target bottom depths shall be subject to DOE approval.

14. The BMPs used on the barge to minimize turbidity and the re-introduction of contaminated sediments into waters of the state shall be approved by DOE.

15. Water quality monitoring and compliance requirements associated with the dredging

activities shall approved by DOE.

16. The dredging equipment shall be routinely inspected and repaired as necessary to prevent the introduction of hydraulic fluid and petroleum products into waters of the state.

TEMPORARY UPLAND STORAGE

17. The location and configuration of the temporary upland storage site for sediment materials dredged from the Whatcom Waterway Phase 1 Areas as describe in your JARPA and Supporting Documents shall be approved by DOE.

18. The BMPs used to prevent the re-introduction of dredged sediments from the temporary upland storage site into waters of the state shall be approved by DOE.

19. The BMPs used to prevent the re-introduction of dredged sediments into waters of the state during the transfer of dredged materials from the barge to the temporary upland storage site shall be approved by DOE.

20. The temporary upland storage site for sediment materials dredged from the Whatcom Waterway Phase 1 Areas shall be completely removed from the project site and appropriately disposed upland immediately upon project completion.

LONG TERM UPLAND DISPOSAL

21. Contaminated sediments dredged from the Whatcom Waterway Phase 1 Areas shall be disposed at an upland disposal site approved by DOE.

SEDIMENT CAPS

22. The subtidal and shallow subtidal residual management cover, sand cap, filter and armor for the dredging treatments in the Whatcom Waterway Phase 1 areas shall be placed as described and illustrated in your JARPA, Plans and Supporting Documentation.

23. The material sizes for the residual management cover and dredge cut sand cap, filter and armor shall be subject to DOE approval.

24. The thickness of the residual management cover and dredge cut sand cap, filter and armor shall be subject to DOE approval.

PILE REMOVAL

25. The pier support piles, moorage piles, pile dolphins and derelict piles in the Whatcom Waterway Phase 1 Areas identified for removal in your JARPA, Plans, and Supporting Documentation shall be removed and disposed upland consistent with the following comments.

26. A vibratory hammer shall be used for pile removal.
27. Piles shall be removed slowly, and in a direction that is an extension of the longitudinal centerline of the pile, to minimize the disturbance of the bed and the suspension of contaminated sediments into the water column.
28. Extracted piles shall be immediately placed in a containment basin constructed on the barge or adjacent upland to capture and contain the extracted piles, adhering sediments and water.
29. The extracted piles shall not be shaken, hosed-off, left hanging to drip or any other action intended to clean or remove adhering material from the pile.
30. Holes in the bed resulting from the extraction of the pile shall be backfilled with clean sand materials.

PILE CUTTING

31. Every attempt shall be made to completely remove the piling in its entirety.
32. If a pile cannot be removed or breaks off at or near the existing substrate, then the pile shall be cut off using a pneumatic underwater chainsaw. The pile shall be cut off as close to the bed as possible without disturbing the bed and a maximum of 12 inches above the bed.
33. Areas of the project site where piles must be cut off shall be back dressed with 12-18 inches of clean substrate materials.
34. The cut off pile stub shall be captured whenever feasible, removed and deposited in the containment basin constructed on the barge or adjacent upland.
35. Whenever feasible, the sawdust shall be captured whenever feasible, removed and deposited in the containment basin constructed on the barge or adjacent upland.

IN-WATER PILE DEBRIS CAPTURE

36. A floating surface boom shall be installed around the pile extraction site to capture floating pile debris. Floating pile debris shall be removed and deposited in the containment basin constructed on the barge or adjacent upland.
37. The floating surface boom shall be equipped with absorbent pads to contain any oil sheens. The absorbent pads shall be removed and deposited in the containment basin constructed on the barge or adjacent upland.

PILE REMOVAL BARGE OPERATIONS, WORK SURFACE, CONTAINMENT

38. Construction barges shall be restricted to tide elevations adequate to prevent grounding of the barge.
39. Barge anchors shall not be placed in contaminated sediments.
40. Whenever feasible the barge location shall be fixed through the use of methods that do not disturb contaminated sediments (e.g. mooring dolphins, docks, piers, upland structures, anchoring in non-contaminated areas). Where these methods are not feasible, spuds may be used. The use of walking spuds shall not be permitted.
41. Live boating shall be held to an absolute minimum.
42. Motorized vessel operation shall be restricted to tidal elevations adequate to prevent prop scour disturbance to the contaminated sediments.
43. Minimal propulsion power shall be used when maneuvering barges or other vessels to prevent prop scour disturbance to the contaminated sediments.
44. A containment basin shall be constructed on the barge deck or adjacent upland to receive the piles, pile stubs, water, sawdust and any sediment.
45. The containment basin shall be constructed of durable plastic sheeting with sidewalls supported by hay bales or support structure.
46. To the extent possible, pile extraction shall be conducted during periods when the water currents are low.

DISPOSAL OF PILING, SEDIMENT, WATER AND SAWDUST

47. The piles, pile stubs, sawdust and absorbent pads from the floating surface boom shall be removed and disposed in accordance with applicable federal and state regulations.
48. The water captured in the containment basin shall be removed and disposed in accordance with applicable federal and state regulations.
49. The containment basin shall be removed and disposed in accordance with applicable federal and state regulations.
50. Extracted piles within the containment basin or disposal container shall be cut to size as required by container and disposal contractors. All sawdust and cuttings shall be contained within the containment basin or disposal container.

51. The cut up piling, sediments, sawdust, water, absorbent pads from the floating surface boom and plastic from the containment basin shall be packed into a disposal container and transported to an approved upland disposal site.

SHORELINE MODIFICATIONS

52. The shoreline in the Whatcom Waterway Phase 1 Areas shall be modified as illustrated in your JARPA, Plans and Supporting Documentation.

53. Excavators used to modify the shoreline shall only be operated from above OHW.

54. Shoreline excavation shall be conducted in the dry to the extent possible.

55. Each pass of the excavator bucket shall be complete.

56. Under no circumstances shall excavated materials be stockpiled below the ordinary high water line.

57. Water quality monitoring and compliance requirements associated with the shoreline excavations shall approved by DOE.

58. Track excavators used for shoreline excavations shall be routinely inspected and repaired as necessary to prevent the introduction of hydraulic fluid and petroleum products into waters of the state.

59. The existing timber bulkheads, pier supper structure and shoreline debris shall be removed as described and illustrated in your JARPA, Plans, and Supporting Documentation.

60. The timber bulkheads in the Log Pond Area and the Inner Whatcom Waterway Area shall be cut off and removed as illustrated in your JARPA, Plans, and Supporting Documentation.

61. Whenever feasible, the sawdust shall be captured, removed and deposited of at an appropriate upland site.

62. A floating surface boom shall be installed around the timber bulkhead sections and piers where creosote treated timbers shall be removed or cutoff to capture floating debris. Floating debris shall be removed and deposited at an appropriate upland site.

63. The floating surface boom shall be equipped with absorbent pads to contain any oil sheens. The absorbent pads shall be removed and deposited at an appropriate upland site.

TEMPORARY UPLAND STORAGE

64. The location, configuration and management of a the temporary upland storage site for the

sediment and debris materials excavated from the Whatcom Waterway shoreline as describe and illustrated in your JARPA, Plans and Supporting Documents shall be subject to DOE approval.

65. The BMPs used to prevent the re-introduction of excavated sediment and debris materials from the temporary upland storage site into waters of the state shall be approved by DOE.

66. The BMPs used to prevent the re-introduction of excavated sediment and debris materials into waters of the state during the transfer sediment and debris materials from the excavation sites to the temporary upland storage site shall be approved by DOE.

67. The temporary upland storage site for sediment materials dredged from the Whatcom Waterway Phase 1 Areas shall be completely removed from the project site and appropriately disposed upland immediately upon project completion.

LONG TERM DISPOSAL

68. Excavated shoreline sediments from the Whatcom Waterway Phase 1 Areas shall be disposed at an upland disposal site approved by DOE.

69. Creosote treated shoreline debris shall be disposed at an upland disposal site approved by DOE.

70. Manmade shoreline debris shall be appropriately recycled or disposed at appropriate upland sites.

SEDIMENT CAPS

71. The intertidal and shallow sub-tidal residual management cover, sand cap, filter and armor for the shoreline excavation treatments in the Whatcom Waterway Phase 1 Areas shall be placed as described and illustrated in your JARPA, Plans and Supporting Documentation.

72. The material sizes for the residual management cover, sand cap, filter and armor for the shoreline excavation treatments shall be subject to DOE approval.

73. The thickness of the intertidal and shallow sub-tidal shoreline residual management cover, sand cap, filter and armor for the shoreline excavation treatments shall be subject to DOE approval

NEW AND REPLACEMENT INFRASTRUCTURE

STEEL PILING, DOLPHINS, AND FENDER PILES

74. The new steel piling, dolphins and fender piles shall be constructed as described and illustrated in your JARPA, Plans and Supporting Documents.

75. Sound attenuation methods are required for the driving or proofing of steel piles with an impact hammer below the ordinary high water line. For impact driving of steel piles that exceed the following criteria, a bubble curtain or other WDFW approved sound attenuation device shall be used. The specific criteria include sound pressure levels of:

- a) Greater than or equal to 206 dB (one microPascal squared per second) peak,
- b) Greater than or equal to 187 dB (one microPascal squared per second) accumulated sound exposure level (SEL) for fish greater than or equal to 2 grams, and
- c) Greater than or equal to 183 dB (one microPascal squared per second) (SEL) for fish less than 2 grams.

76. The bubble curtain shall be installed and properly functioning around the pile during all driving operations. The bubble curtain shall distribute air bubbles around 100 percent of the perimeter of the piling over the full length of the pile in the water column.

77. The new steel piling, dolphins and fender piles shall be coated with a rubbing surface, rubbing strip or rubber energy absorption fenders as described in your JARPA and Supporting Documents.

STEEL SHEET PILE BULKHEADS

78. The new steel sheet pile bulkheads shall be constructed as described and illustrated in your JARPA, Plans and Supporting Documents.

79. The new steel sheet pile bulkheads shall be constructed in the dry to the extent possible.

80. The new steel sheet piles will be installed to the extent possible with a vibratory hammer. If an impact hammer is required to drive or proof the new steel sheet piles, then a bubble curtain shall be installed and properly functioning around the sheet piles.

81. Wet concrete used to construct a concrete cap on top of the steel sheet pile bulkheads shall be prevented from entering waters of the state. Forms shall be constructed to prevent leaching of wet concrete. Impervious materials shall be placed over any exposed concrete not lined with the forms that will come in contact with state waters. Forms and impervious materials shall remain in place until the concrete is cured.

MOORING FLOAT

82. The existing ramp and floats shall be moved and reconfigured as described and illustrated in your JARPA, Plans and Supporting Documents.

83. Under no circumstances shall the overwater footprint of the existing ramp and floats be expanded as a result of moving and reconfiguring the structure.

84. The floatation for the floats shall be fully enclosed and contained to prevent the breakup or loss of the floatation material into the water. If the floatation for the existing floats does not fully meet this standard, then the floats shall be updated or replaced.

85. All treated wood, piling, and lumber to be used for the relocation of the existing ramp and float shall meet or exceed the standards established in "Best Management Practices For the Use of Treated Wood in Aquatic and Other Sensitive Environments" developed by the Western Wood Preservers Institute (<http://www.wwpinstitute.org/>), revised November 2011, and any current amendments.

86. All lumber treated with ACZA preservative shall be sufficiently cured to minimize leaching into the water or bed.

87. Under no circumstances shall creosote treated piling or lumber be used to replace, modify or reconfigure the existing ramp and mooring floats. .

MAPLE STREET BARGE RAMP

88. The existing Maple Street Barge Ramp and foundation shall be removed as described in your JARPA and Supporting Documents.

89. The existing Maple Street Barge Ramp and foundation shall be disposed appropriately at an upland location.

90. The ramp cavity shall be backfilled and sealed as described and illustrated in your JARPA, Plans and Supporting Documents and shall be subject to DOE approval.

91. The replacement Maple Street Barge Ramp shall be constructed as described and illustrated in your JARPA, Plans and Supporting Documents.

92. To the extent possible, the removal of the existing barge ramp and the construction of a new barge ramp shall be conducted in the dry.

GENERAL

93. If at any time, as a result of project activities, fish are observed in distress, a fish kill occurs, or water quality problems develop (including equipment leaks or spills), the Washington Military Department's Emergency Management Division shall be immediately contacted at 1-800-258-5990.

94. No petroleum products or other deleterious materials shall enter surface waters.

95. Project activities shall not degrade water quality to the detriment of fish life.

If you have any questions, please contact me at (360) 466-4345, extension 250.

Sincerely,

A handwritten signature in cursive script that reads "Brian Williams".

Brian Williams
Area Habitat Biologist



US Army Corps
of Engineers
Seattle District

WASHINGTON STATE
Joint Aquatic Resources Permit
Application (JARPA) [help]

Attachment E:
Aquatic Use Authorization on
Department of Natural Resources
(DNR)-managed aquatic lands [help]

AGENCY USE ONLY

Date received: _____; Town _____
Application Fee Received; Fee N/A
New Application; Renewal Application
Type/Prefix #: _____; Nature Use Code: _____
LM Initials & BP#: _____
RE Assets Finance BP#: _____
New Application Number: _____
Trust(s): _____; County: _____
AQR Plate #(s): _____
Gov Lot #(s): _____
Tax Parcel #(s): _____

Complete this attachment and submit it with the completed JARPA form only if you are applying for an Aquatic Use Authorization with DNR. Call (360) 902-1100 or visit [www. bit.ly/dnr_aquatic_lease](http://www.bit.ly/dnr_aquatic_lease) for more information.

- DNR recommends you discuss your proposal with a DNR land manager before applying for regulatory permits. Contact your regional land manager for more information on potential permit and survey requirements. You can find your regional land manager by calling (360) 902-1100 or going to http://www.dnr.wa.gov/Publications/aqr_land_manager_map.pdf. [help]
- The applicant may not begin work on DNR managed aquatic lands until DNR grants an Aquatic Use Authorization.
- Include a \$25 non-refundable application processing fee, payable to the "Washington Department of Natural Resources." (Contact your Land Manager to determine if and when you are required to pay this fee.) [help]

DNR may reject the application at any time prior to issuing the applicant an Aquatic Use Authorization. [help]

1. Applicant Name (Last, First, Middle)	
Hergesheimer, John, P.E.	
2. Organization Name (If applicable)	
Port of Bellingham	
3. Which of the following applies to Applicant? Check one and, if applicable, attach the written authority – bylaws, power of attorney, etc. [help]	
<input type="checkbox"/> Corporation <input type="checkbox"/> Limited Partnership <input type="checkbox"/> General Partnership <input type="checkbox"/> Limited Liability Company Home State of Registration: <u>Washington State</u>	<input type="checkbox"/> Individual <input type="checkbox"/> Marital Community (Identify spouse): _____ <input checked="" type="checkbox"/> Government Agency <input type="checkbox"/> Other (Please Explain): _____

4. Washington UBI (Unified Business Identifier) number, if applicable: [\[help\]](#)
 371000005

5. Are you aware of any existing or previously expired Aquatic Use Authorizations at the project location?
 Yes No Don't know
 If Yes, Authorization number(s): Port Management Agreement # 22-080025

6. Do you intend to sublease the property to someone else?
 Yes No
 If Yes, contact your Land Manager to discuss subleasing.

7. If fill material was used previously on DNR-managed aquatic lands, describe below the type of fill material and the purpose for using it. [\[help\]](#)
 No known fill has been previously placed on DNR-managed lands within the project area. However, some pilings are located within DNR-managed lands. The pilings were placed to support marine-related activities.

To be completed by DNR and a copy returned to the applicant.

Signature for projects on DNR-managed aquatic lands:

Applicant must obtain the signature of DNR Aquatics District Manager OR Assistant Division Manager if the project is located on DNR-managed aquatic lands.

I, a designated representative of the Dept. of Natural Resources, am aware that the project is being proposed on Dept. of Natural Resources-managed aquatic lands and agree that the applicant or his/her representative may pursue the necessary regulatory permits. My signature does not authorize the use of DNR-managed aquatic lands for this project.

<i>Dennis Clark</i>	<i>Dennis Clark</i>	<i>12/3/12</i>
Printed Name	Signature	Date
Dept. of Natural Resources	Dept. of Natural Resources	
District Manager or Assistant Division Manager	District Manager or Assistant Division Manager	

If you require this document in another format, contact the Governor's Office of Regulatory Assistance (ORA) at (800) 917-0043. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call (877) 833-6341. ORA Publication ENV-049-12

Permit No.: 7676-05
Issuance Date: May 16, 2011
Effective Date: May 28, 2011
Expiration Date: May 27, 2016



King County

WASTE DISCHARGE PERMIT

Department of Natural Resources and Public Health
Industrial Waste Program
130 Nickerson Street, Suite 200
Seattle, WA 98109-165R

In accordance with the provisions of Chapter 90.48-RCW, RCW 90.48-020, and King County Code 28.84s00, a Waste Discharge Permit is issued to:

Marine Vacuum Service

Plant Location: 11111 1st Orphan Street
Seattle, WA 98108

Business Hours Phone: 206-762-0240

Emergency (24-Hour) Phone: 206-762-024-0

Mailing Address: P.O. Box 24263
Seattle, WA 98124

Permission is hereby granted to discharge industrial wastewater from the above identified facility into the King County sewer system in accordance with the effluent limitations and monitoring requirements set forth in this permit.

This permit is based on information provided in the permit application, which together with the following conditions constitute the complete permit. All requirements of the WWA Ordinance of King County in effect at the date of this permit, and the King County sewerage system rules hereby made a condition of this permit. All discharges and activities authorized herein shall be consistent with the terms and conditions of this permit.

This permit is not transferable without the authorization of the King County Industrial Waste Program. Failure to provide advance notice of a transfer of this waste discharge permit voids the permit as of the date of facility transfer.

By 
Despina Strong
Program Manager
Industrial Waste Program

83. SPECIAL CONDITIONS

A. Marino Vacuum Service 14-Hour Compliance Sampling Method

1. Within 30 days of permit effective date, Marino Vacuum Service shall submit to the King County Industrial Waste Program a plan to improve flow-proportioned sampling methodology. The plan should consider:
 - a. Flow rates from all IS processes and batch jobs;
 - b. The variability of these flows and the potential for anomalies in each stream
 - c. The treatment system employed
 - d. Discharge mode (continuous flow, batch, gravity vs. pumped)
 - e. The variability of discharge quality
 - f. Any available monitoring data, time and flow-proportioned samples from this or similar sites
2. The King County Industrial Waste Program will use the documented flow-proportioned or time-proportioned sampling methodology.
3. If King County determines Marino Vacuum Service must implement flow-proportioned composite sampling, Marino Vacuum Service shall have a minimum of 60 days upon receipt of King County's decision to implement changes necessary and implement flow-proportioned sampling.

B. Industrial Discharges

1. The following types of industrial wastewater discharges shall be treated by Marino Vacuum Service:

Bilge water	Cell basin cleaning wastewater
Tank cleaning wastewater	Wastewater from spill response
Contaminated stormwater	Clothes (shirts) (from on-site)
Truck wash water	Hydro-blast wastewater
Contaminated groundwater	Blower blow down (from on-site)
Oil/Water separator waste	Boiler maintenance
Slurry water	
2. Sanitary wastewater (gray water including tank washwater) from marine vessels may be discharged directly to the sewer system without treatment.
3. Other types of wastewater not specifically listed in this permit shall not be discharged without notification from King County Industrial Waste.
4. Marino Vacuum Service may not use pits for disposal or treatment that discharge to a discharge unit (hazardous) as per WAC 173-100-010.
5. New pipes and holding tanks shall be labeled as follows: are added.

**KING COUNTY INDUSTRIAL WASTE
COMPANY FACT SHEET**

Date: May 16, 2011

COMPANY INFORMATION

Company Name: Marine Vacuum Sentke
 Plant Address: 1516 S. Oranum S
 Seattk, WA 98108
 Mailing Address: P.O. Box 24263
 Seattk, WA 98124
 Trussel Plant: West Point
 Corp. Contact & Name: Charlie Campbell, 206.762-0240
 Plant Contact & Phone: Tom Myler, 206-762-0240
 Compliance Type: Centralized WJW Treatment -
 4(CFR 437D PSES, Subpart B (Oils) and C (Organic))
 Days Off: 285
 SIC#: 4499 EPA ID: WAD900974521
 Director: Jim Sford

PERMIT INFORMATION

Permit #: 1616-08
 Effective Date: May 25, 2011
 Expiration Date: May 27, 2016

DESCRIPTION OF SAMPLE SITES, LIMITS, & DISCHARGE VOLUMES

Sik No	Site Description	Regulation	Maximum Industrial Volume (gpd)
A -	Sample 001	CFR 437D (f.l.&c) SFS Organic Sulfur	1000
Total Industrial discharge volume (gpd) (add all sites)			1200
Cooling Water (non regulated) (gpd)			10
Sanitary Waste (non regulated) (gpd)			34



State of Oregon
Department of
Environmental
Quality

Permit Number: 391
Expiration Date: July 1, 2017
Page 1 of 37

**SOLID WASTE DISPOSAL SITE PERMIT:
Municipal Solid Waste Landfill
Columbia Ridge Landfill**

**Oregon Department of Environmental Quality
400 E Scenic Drive, Suite 307
The Dalles, OR 97058
Telephone: (541) 298-7255**

**Issued in accordance with the provisions of ORS Chapter 459 and
subject to the land use compatibility statement referenced below.**

ISSUED TO:

Waste Management Disposal Services of Oregon,
Inc.
Columbia Ridge Landfill and Recycling Center
18177 Cedar Springs Lane
Arlington, Oregon 97812
(541) 454-3201 Fax (541) 454 3247

FACILITY NAME AND LOCATION:

Columbia Ridge Landfill and Recycling Center
18177 Cedar Springs Lane
Arlington, Oregon 97812
T2N, R21E, S32/33 WM.

OWNER:

Waste Management Disposal Services of Oregon,
Inc.
18177 Cedar Springs Lane
Arlington, Oregon 97812

OPERATOR:

Waste Management Disposal Services of Oregon,
Inc.

ISSUED IN RESPONSE TO:

- A solid waste permit application received November 29, 2006; and
- A Land Use Compatibility Statement from Gilliam County dated December 7, 2006.

The determination to issue this permit is based on findings and technical information included in the permit record.

ISSUED BY THE OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

Elizabeth Druback

Elizabeth Druback
Solid Waste Manager
Eastern Region

6/11/07

Date

Permitted Activities

Until such time as this permit expires or is modified or revoked, the permittee is authorized to establish, operate, and maintain a solid waste land disposal site in conformance with the requirements, limitations, and conditions set forth in this document including all attachments.

TABLE OF CONTENTS

Introduction This document is a solid waste permit issued by the Oregon Department of Environmental Quality in accordance with Oregon Revised Statutes (ORS) 459 and Oregon Administrative Rules (OAR), Chapter 340.

In this document This document contains the following sections:

Section	Topic	See Page
----	Permit Administration	3
1.0	Issuance	3
2.0	Disclaimers	4
3.0	Authority	4
4.0	Permit Modification	5
----	Allowable Activities	6
5.0	Authorizations	6
6.0	Prohibitions	7
----	Operations and Design	10
7.0	Operations Plan	10
8.0	Recordkeeping and Reporting - Operations	12
9.0	Specific Operating Conditions	14
10.0	Site Development and Design	17
11.0	Recycling Requirements	20
----	Site Closure	21
12.0	Closure Construction and Maintenance	21
13.0	Financial Assurance	22
----	Environmental Monitoring	24
14.0	Environmental Monitoring Plan (EMP)	24
15.0	Environmental Sampling Requirements	25
16.0	Establishing Permit Specific Concentration Limits	27
17.0	Environmental Monitoring Standards	28
18.0	Recordkeeping and Reporting -- Environmental Monitoring	31
19.0	Environmental Monitoring Network	33
----	Compliance Schedule	35
20.0	Summary of Due Dates	35
----	Attachments	35
21.0	Attachments to Permit	36

PERMIT ADMINISTRATION

1.0 ISSUANCE

1.1	In this section	This section describes the parameters surrounding permit issuance, including the following information: <ul style="list-style-type: none">• Permittee;• Permit number;• Permit term;• Facility type;• Facility owner/operator;• Basis for issuance and• Definitions.
1.2	Permittee	This permit is issued to Waste Management Disposal Services of Oregon, Inc.
1.3	Permit number	This permit will be referred to as Solid Waste Permit Number 391 .
1.4	Permit term	The issue date of this permit is the date this document is signed. The expiration date of this permit is July 1, 2017 .
1.5	Facility type	The facility is permitted as a municipal solid waste landfill.
1.6	Facility owner/operator	The owner of this facility is: Waste Management Disposal Services of Oregon, Inc. Arlington, Oregon 97812 The operator of this facility is: Waste Management Disposal Services of Oregon, Inc.
1.7	Basis for issuance	This permit is issued based upon the following documents submitted by the permittee: <ul style="list-style-type: none">• Solid waste permit application received November 29, 2006; and• Land Use Compatibility Statements from Gilliam County dated December 7, 2006.
1.8	Definitions	Unless otherwise specified, all terms are as defined in OAR 340-93-030.

2.0 DISCLAIMERS

2.1	In this section	This section describes disclaimer information for the Department, including: <ul style="list-style-type: none">• Property rights; and• Department liability.
2.2	Property rights	The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights.
2.3	Department liability	The Department, its officers, agents, or employees do not sustain any liability on account of the issuance of this permit or on account of the construction, maintenance, or operation of facilities pursuant to this permit.

3.0 AUTHORITY

3.1	In this section	This section describes the authority of the Oregon Department of Environmental Quality to issue this permit, including the following information: <ul style="list-style-type: none">• 10 year permit;• Documents superseded;• Binding nature;• Other compliance; and• Penalties.
3.2	Ten year permit	This permit is issued for a maximum of ten years as authorized by Oregon Revised Statutes 459.245 (2).
3.3	Documents superseded	This document is the primary solid waste permit for the facility, superseding all other solid waste permits issued for Columbia Ridge Landfill and Recycling Center by the Department.
3.4	Binding nature	Conditions of this permit are binding upon the permittee. The permittee is liable for all acts and omissions of the permittee's contractors and agents.
3.5	Other compliance	Issuance of this permit does not relieve the Permittee from the responsibility to comply with all other applicable federal, state, or local laws or regulations. This includes the following solid waste requirements, as well as all updates or additions to these requirements: <ul style="list-style-type: none">• Solid waste permit application received November 29, 2006;• Oregon Revised Statutes, Chapters 459 and 459A;• Oregon Administrative Rules Chapter 340; and• Any documents submitted by the Permittee and approved by the Department.
3.6	Penalties	Violation of permit conditions will subject the permittee to civil penalties of up to \$10,000 for each day of each violation.

4.0 PERMIT MODIFICATION

4.1 In this section	This section describes information about modification of this permit, including: <ul style="list-style-type: none">• 5 year review;• Modification;• Modification and revocation by Department;• Modification by permittee;• Public participation; and• Changes in ownership.
4.2 Five year review	Between the 4th and 6th year of the life of the permit, the Department may review the permit and determine whether or not the permit should be amended. While not an exclusive list, the following factors will be used in making that determination: <ul style="list-style-type: none">• Compliance history of the facility;• Changes in volume, waste composition, or operations at the facility;• Changes in state or federal rules which should be incorporated into the permit;• A significant release of leachate or landfill gas to the environment from the facility; and• Significant changes to a Department-approved site development plan, and/or conceptual design.
4.3 Modification	At any time in the life of the permit, the Department or the Permittee may propose changes to the permit.
4.4 Modification and revocation by Department	The Director may, at any time before the expiration date, modify, suspend, or revoke this permit in whole or in part, in accordance with Oregon Revised Statutes 459.255, for reasons including but not limited to the following: <ul style="list-style-type: none">• Violation of any terms or conditions of this permit or any applicable statute, rule, standard, or order of the Commission;• Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or• A significant change in the quantity or character of solid waste received or in the operation of the disposal site.
4.5 Modification by permittee	The Permittee must apply for a modification to this permit if there is a significant change in facility operations or a deviation from activities described in this document.
4.6 Public participation	Significant changes in the permit will be made public by the issuance of a public notice as required by Department rules.
4.7 Changes in ownership	The Permittee must report to the Department any changes in either ownership of the disposal site property or of the name and address of the Permittee or operator within ten (10) days of the change.

ALLOWABLE ACTIVITIES

5.0 AUTHORIZATIONS

5.1 In this section	<p>This section describes the activities the Permittee is authorized to conduct, including:</p> <ul style="list-style-type: none">• Waste Authorized for receipt;• Authorization of other wastes;• Authorization of activities;• Tires for recycling; and• Salvaging and recycling.
5.2 Wastes authorized for receipt	<ul style="list-style-type: none">• This permit authorizes the facility to accept solid waste as defined in ORS 459.005, except non-digested sewage sludges and septic tank pumpings and free liquids other than those allowed in Condition 6.3.
5.3 Authorization of other wastes	<p>Wastes excluded from the above authorization may be authorized for acceptance if:</p> <ul style="list-style-type: none">• The Permittee develops a Special Waste Management Plan and submits it to the Department for approval;• The Department approves the Special Waste Management Plan; and• The Permittee can demonstrate that the materials do not constitute hazardous waste, as defined by state and federal regulations.
5.4 Authorization of activities	<p>All facility activities are to be conducted in accordance with the provisions of this permit. All plans required by this permit become part of the permit by reference once approved by the Department. Any conditions of the approval are also incorporated into this permit unless contested by the Permittee within 30 days of the receipt of a conditional approval.</p>
5.5 Tires for recycling	<p>This permit authorizes the facility to accept up to 100 whole tires for storage and removal.</p> <p>This permit authorizes the facility to accept up to 2,000 whole tires for storage and removal if the Permittee maintains a continuous contract with a waste tire carrier to remove the tires from the site.</p>
5.6 Salvaging and recycling	<p>Salvaging and recycling are authorized if conducted in a controlled and orderly manner.</p>

6.0 PROHIBITIONS

- 6.1 In this section** This section describes specific activities the Permittee is prohibited from conducting, including:
- Hazardous waste disposal;
 - Liquid waste disposal;
 - Vehicle disposal;
 - Used oil disposal;
 - Battery disposal;
 - Tire disposal;
 - Recyclable material disposal;
 - Open burning; and
 - Large appliances.
-

- 6.2 Hazardous waste disposal** The Permittee must not accept any regulated hazardous wastes. Reference: 40 CFR 258.20 (b).
- In the event discovered wastes are hazardous or suspected to be hazardous, the Permittee must, within 7 days, notify the Department and initiate procedures to identify and remove the waste. Hazardous wastes must be removed within 90 days, unless otherwise approved by the Department. Temporary storage and transportation must be carried out in accordance with the rules of the Department.
-

6.3 Liquid waste disposal

- The Permittee is not allowed to accept liquid waste for disposal except in a Department approved surface impoundment or as authorized in the August 2003 *RD&D Permit Application and Operation Plan* (RD&D application), revised RD&D application dated August 25, 2003 and in accordance with any revisions and modifications to the RD&D application approved by the Department. Approved liquid waste disposal is limited to liquid wastes for which it has been determined that they support the microbiological processes acting to decompose landfilled waste. Such determination must be made for each liquid waste stream in accordance with acceptance criteria contained in a Department-approved Special Waste Management Plan.

Definition: Liquid wastes are wastes that do not pass the paint filter test performed in accordance with EPA method 9095.

- The primary goal of this RD&D program is to use liquid disposal to enhance waste decomposition and landfill gas production in a manner that when compared to existing "dry" landfill operations will provide an environmental benefit(s) without increased risk to human health or the environment. To achieve this goal, based on RD&D application proposals, the Permittee must both control the increased gas emissions caused by liquids disposal, and recover energy from landfill gas when feasible.
- Disposal of liquids must be conducted in a manner that will optimize landfill gas production for energy recovery. Operations must emphasize effective introduction of liquids into the waste mass in a manner approved by the Department.
- Increased gas emissions related to liquids disposal must be controlled without increasing emissions into the environment (compared to existing "dry" landfill operations) in a manner approved by the Department.
- By no later than June 15 of each year, the Permittee shall submit an annual report. Included in the annual report, the Permittee shall show whether and to what extent progress is being made to attain project goals, and summarize all monitoring and testing requirements as well as operating information specified in the RD&D application.
- This RD&D permit condition will expire October 1, 2009. The Director may terminate this condition at any time the overall primary goals of the RD&D application are not being attained, including protection of human health and the environment.

6.4 Vehicle disposal

The Permittee must not accept discarded or abandoned vehicles for disposal.

6.5 Used oil disposal

The Permittee must not accept used oil for disposal.

6.6 Battery disposal

The Permittee must not accept lead-acid batteries for disposal.

6.7 Tire disposal

The Permittee must not accept waste tires for disposal.

-
- 6.8 Recyclable material disposal** The Permittee must not landfill or dispose of any source separated recyclable material brought to the disposal site.
Exception: If the source separated material is determined to be in a condition which makes the material unusable or not recyclable then it may be landfilled. This determination must be made after consultation with the Department.
-
- 6.9 Open burning** The Permittee must not conduct any open burning at the site with the exception of the controlled burning of weeds. The Department's Pendleton office must be notified prior to each burning event. An attendant must be on duty during each burning event.
-
- 6.10 Large Appliances** The Permittee must not knowingly accept for disposal large metal jacketed residential, commercial, and industrial appliances such as refrigerators, washers, stoves and water heaters.
-

OPERATIONS AND DESIGN

7.0 OPERATIONS PLAN

- | | | |
|------------|------------------------|--|
| 7.1 | In this section | <p>This section describes the requirements associated with a facility Operations Plan, including:</p> <ul style="list-style-type: none"> • Operations plan; • Plan content; • Operations and maintenance manual; • Plan and manual maintenance; • Plan and manual compliance; and • Submittal address. |
| 7.2 | Operations Plan | <p>Within 5 years of the permit issue date, the Permittee must review and submit any necessary updates to the site Operations Plan to the Department for approval. Upon approval, this plan is incorporated into this permit by reference.</p> |
| 7.3 | Plan content | <p>The Operations Plan must describe the operation of the disposal site in accordance with all regulatory and permit requirements, including the following:</p> |

Content area	Describe plans for:
General operations	<ul style="list-style-type: none"> • Handling and removal of unauthorized wastes discovered at the facility; • Management of landfill gas; • Management of landfill leachate; • Surface water and erosion control structure design; and • Non-compliance response.
Disposal operations	<ul style="list-style-type: none"> • Placement of daily and intermediate cover; • Detecting and preventing the disposal of regulated hazardous wastes, polychlorinated biphenyl wastes, and any other unacceptable wastes as determined by the Department; • Disposal of putrescible wastes; • Disposal of cleanup materials contaminated with hazardous substances; and • Fill progression and phasing.
Special Waste Management Plan	<ul style="list-style-type: none"> • Identifying and characterizing wastes which required special management or waste streams not otherwise authorized by the permit; • Identifying the source of all special wastes; • Determining appropriate handling procedures; and • Documenting plan implementation, including waste characterization. <p>References: OAR 340-93-190, OAR 340-94-040[11][b][J]</p>
Ancillary operations	<ul style="list-style-type: none"> • Handling and removal of waste tires; and • Management of transfer containers.

Inspection and maintenance	<ul style="list-style-type: none"> ◦ Washing equipment; ◦ Maintaining leachate and gas collection systems; and ◦ Maintaining surface water control structures.
Operating record	<ul style="list-style-type: none"> ◦ Operating record location.
Contingency	<ul style="list-style-type: none"> ◦ Providing fire protection equipment; and ◦ Notification of emergencies and fires to the Department.

Reference: OAR 340-94-040 describes requirements for preparation of an Operations Plan.

-
- 7.4 Operations and Maintenance Manual** Within 90 days of approval of the updated Operations Plan, the Permittee must prepare an updated Operations and Maintenance Manual which describes specific procedures for conducting routine and emergency operations at the site. A copy of the Operations and Maintenance Manual must be maintained in the Operating Record location and be available for Department review.
-
- 7.5 Plan and Manual maintenance** The Permittee must revise both the Operations Plan and the Operations and Maintenance Manual as necessary to keep them current and reflective of current facility conditions and procedures.
 The Permittee must submit Operations Plan revisions to the Department for approval.
-
- 7.6 Plan and Manual compliance** The Permittee must conduct all operations at the facility in accordance with the approved Operations Plan, including any amendments, and the Operations and Maintenance Manual.
-
- 7.7 Submittal address** All submittals to the Department under this section must be sent to:
 Oregon Department of Environmental Quality
 Manager, Solid Waste Program
 400 E Scenic Drive, Suite 307
 The Dalles, OR 97058
 Telephone: (541) 298-7255
-

8.0 RECORDKEEPING AND REPORTING - OPERATIONS

8.1 In this section This section describes recordkeeping and reporting operational information for the facility, including:

- Non-compliance reporting;
- Permit display;
- Access to records;
- Procedure; and
- Submittal address.

8.2 Non-compliance reporting In the event that any condition of this permit or of the Department's rules is violated, the Permittee must immediately take action to correct the unauthorized condition and immediately notify the Department at:

(541) 276-4063

Response: In response to such a notification, the Department may conduct an investigation to evaluate the nature and extent of the problem, and to evaluate plans for additional corrective actions, as necessary.

8.3 Permit display The Permittee must display this permit, or a photocopy thereof, where it can be readily referred to by operating personnel.

8.4 Access to records Upon request, the Permittee must make all records and reports related to the permitted facility available to the Department.

8.5 Procedure The Permittee must keep records and submit reports according to the following:

Step	Action
1	Establish a location for the Operating Record at the facility or another location mutually agreed with the Department.
2	Place information required by 40 CFR 258.29 in the Operating Record.
3	Collect information during facility operations on the amount of each type of solid waste received, recording "0" if the waste is not received. At a minimum, the following types of waste must be separately identified, and be categorized as being either in- or out-of-state wastes: <ul style="list-style-type: none"> • Municipal solid waste; • Industrial solid waste; • Petroleum-contaminated soil; and • Approved alternative daily cover.
4	Collect information about the amount of each material recovered for recycling or other beneficial purpose each quarter

5	Collect the following operations information: <ul style="list-style-type: none"> • Amount of solid waste received and by source each month; • Number of containers received each month; • Number of waste tires shipped annually; • Type and tonnage of special waste received by source each quarter; and • Source, type and tonnage of Clean-up material contaminated with hazardous substances each quarter.
6	Submit the information collected in Step 3 above on the Solid Waste Disposal Report/Fee Calculation form provided by the Department. Pay solid waste fees as required by OAR 340-97. <u>Date due:</u> the last day of the month following the end of the calendar quarter.
7	Submit the information collected in Step 4 above, on a form provided or approved by the Department, to the wasteshed representative. <u>Date due:</u> January 25 th of each year.
8	Submit the information collected in Step 5 above, on a form approved by the Department, to the regional solid waste program. <u>Date due:</u> the last day of the month following the end of the calendar quarter.
9	Retain copies of all records and reports for five years from the date created.
10	Update all records such that they reflect current conditions at the facility.

8.6 Submittal address

The submittals required in steps 6 and 7 must be sent to:
 Oregon Department of Environmental Quality
 Land Quality Division
 Solid Waste Program
 811 S.W. Sixth Ave.
 Portland, OR 97204
 (503)229-5913

The submittal required in step 8 must be sent to:
 Oregon Department of Environmental Quality
 Manager, Solid Waste Program
 400 E. Scenic Dr. Suite 307
 The Dalles, OR 97058
 (541) 298-7255

9.0 SPECIFIC OPERATING CONDITIONS

9.1	In this section	This section describes specific conditions to which site operations must conform, including: <ul style="list-style-type: none">• Discovery of prohibited waste;• Daily cover;• Interim cover;• Surface water structures;• Asbestos waste management;• Leachate management system;• Leachate surface impoundment;• Spills notification;• Litter control;• Vector control;• On-site roads;• Landfill gas management;• Public Transfer containers; and• Intermodal transfer containers.
9.2	Discovery of prohibited waste	In the event that the Permittee discovers prohibited waste, the Permittee must, within 7 days, notify the Department and initiate procedures to isolate or remove the waste. Non-putrescible, non-hazardous prohibited waste must be transported to a disposal or recycling facility authorized to accept such waste within 90 days, unless otherwise approved or restricted by the Department. Storage of non-putrescible, non-hazardous, prohibited wastes must be approved by the Department in writing.
9.3	Daily cover	At a minimum, all solid wastes must be covered with a layer of six inches of compacted soil or an approved alternative daily cover of equivalent performance at the end of each working day.
9.4	Interim cover	Interim cover must be constructed and maintained as specified in Department-approved design and operations plans. Interim cover must be constructed over fill areas which will not receive additional waste for an extended period of time (i.e., greater than 120 days), and interim cover that is to remain exposed for more than two years must be actively revegetated as approved by the Department.
9.5	Surface water structures	All stormwater drainage structures must be maintained in good functional condition. Any significant damage must be reported to the Department and repairs made as soon as possible.
9.6	Asbestos waste management	Off loading and disposal of friable asbestos-containing solid waste must be conducted as specified in the Department-approved Operations Plan, and Operations & Maintenance Manual, and in accordance with OAR 340-032. (What about non-friable?)

9.7	Leachate management system	The Permittee must construct, operate and maintain in good functional condition all leachate containment, collection, detection, removal, storage and treatment systems approved by the Department. Leachate must be continuously removed from all landfill leachate collection systems, such that hydraulic head on the bottom liner is minimized and does not exceed one (1) foot.
9.8	Leachate surface impoundment	Leachate must be prevented from escaping to local drainage ways and to other unlined areas of the site. Leachate surface impoundments must be maintained as non-overflow facilities with minimum of three (3) feet of dike freeboard above the leachate surface, unless otherwise approved by the Department. Fencing must control public access to the impoundments and all gates must be locked when an attendant is not on duty. Clearly legible and visible signs must be posted, stating the contents of the surface impoundments and "no trespassing".
9.9	Spills Notification	<p>Oregon Revised Statute 466.635 and Solid Waste Rules, Chapter 340, Division 142 require notification to OERS when oil or hazardous materials are spilled. The spill must be reported to the Oregon Emergency Response System at 1-800-452-0311 if the spill is of a reportable quantity. Reportable quantities include:</p> <ul style="list-style-type: none">• Any amount of oil spilled to waters of the state;• Oil spills on land in excess of 42 gallons;• 200 pounds (25 gallons) or more of spilled pesticide residue; and• Spills of hazardous materials that are equal to, or greater than, the quantity listed in the Code of Federal Regulations, 40 CFR Part 302 (List of Hazardous Substances and Reportable Quantities), and amendments adopted before July 1, 2002. <p>For a complete list of hazardous materials required to be reported, please refer to OAR 340-142-0050.</p>
9.10	Litter control	The Permittee must implement procedures which minimize the scattering of windblown litter and provide for effective and timely collection of litter to ensure the appearance of a well-maintained facility and prevent nuisance conditions.
9.11	Vector control	The Permittee must implement procedures that minimize insects, rodents, and birds at the active disposal area.
9.12	On-site roads	Roads from the landfill property line to the active disposal area and environmental monitoring locations must be constructed and maintained to minimize traffic hazards, dust and mud, and to provide reasonable all-weather vehicle access to active disposal units.
9.13	Landfill gas management	Landfill gas must be controlled in accordance with the requirements of 40 CFR Parts 51, 52 and 60. Landfill gas collection, containment, removal and treatment systems must be maintained in good functional condition.
9.14	Public transfer containers	Transfer containers for receipt of solid waste delivered by the public must be emptied on a frequency to prevent vectors, conditions for the transmission of disease, air pollution, odors, dust, and other objectionable conditions.

**9.15 Intermodal
transfer
containers**

Intermodal containers of regional solid waste must be emptied on a frequency to prevent vectors, conditions for the transmission of disease, air pollution, odors, dust, and other objectionable conditions.

10.0 SITE DEVELOPMENT AND DESIGN

- 10.1 In this section** This section describes site development and design requirements for continued use of the landfill, or any landfill expansion or new facility construction, including:
- Site Development Plan;
 - Baseline design criteria;
 - Design plans;
 - Construction requirements;
 - Construction documents;
 - Construction inspection;
 - Construction report submittal;
 - Construction report content;
 - Approval to use; and
 - Submittal address.
-
- 10.2 Site Development Plan** Prior to May 31, 2015, the Permittee must review and submit any necessary updates to the long-term Site Development Plan to the Department for approval. Upon approval, this plan is incorporated into this permit by reference.
- Reference: The *Solid Waste Landfill Guidance, September 1996*, provides information on applicable elements of a Site Development Plan. Following the organizational format provided in the Guidance will expedite Department review of the plan.
-
- 10.3 Baseline design criteria** Conceptual and detailed plans submitted for a new MSW landfill disposal unit pursuant to this permit must, at a minimum, provide for:
- A composite liner system which includes an approved geomembrane liner (not less than 60 mils in thickness when using high density polyethylene, and not less than 30 mils of thickness for other types of approved geomembranes) and at least two feet of compacted soil having an in-place permeability no greater than 1×10^{-7} cm/sec, or an alternative liner approved by the Department pursuant to 40 CFR Part 258.40(a)(1);
 - A primary leachate collection and removal system (LCRS) which fully covers the liner system. As required by 40 CFR 258.40(a)(2), the primary LCRS must function to maintain less than a one (1) foot depth of leachate over the liner. All leachate collection pipes must be serviceable by clean out;
 - A secondary leachate collection and removal system(s) designed to effectively monitor the performance of the overlying composite liner system. The secondary leachate collection and removal system(s) must, at a minimum, be: (1) capable of detecting and collecting leachate at locations of maximum leak probability; and (2) hydraulically separated from groundwater to prevent erroneous monitoring results caused by infiltrating groundwater; and
 - Construction of an appropriate operations layer above the primary LCRS, to protect the LCRS and liner system from damage.
-

10.4 Design plans	<p>The Permittee must submit engineering design plans for new disposal units, closure of existing units, or other ancillary facilities for Department review and approval at least six months, if possible, prior to the anticipated construction date. The design plans must be prepared and stamped by a qualified professional engineer with current Oregon registration.</p> <p>The engineering design plans must:</p> <ul style="list-style-type: none">• Specify applicable performance criteria, construction material properties and characteristics, dimensions, and slopes; and• Provide all relevant engineering analyses and calculations as a basis for the design. <p>The permittee may commence the excavation of soil from an existing or future landfill module prior to the submittal of design plans.</p>
10.5 Construction requirements	<p>The Permittee must perform all construction in accordance with approved plans and specifications, including all conditions of approval, and any amendments to those plans and specifications approved in writing by the Department.</p>
10.6 Construction documents	<p>Prior to construction of the final landfill cover, a new landfill unit disposal unit, or other waste containment unit at the site, the Permittee must submit and receive written Department approval of complete construction documents for the project to be constructed. The construction documents submitted must:</p> <ul style="list-style-type: none">• Define the construction project team;• Include construction contract documents specifying material and workmanship requirements to guide how the Constructor is to furnish products and execute work; and• Include a Construction Quality Assurance (CQA) plan, describing the measures taken to monitor that the quality of materials and the work performed by the Constructor complies with project specifications and contract requirements. <p><u>Reference:</u> Following the current <i>Solid Waste Guidance</i> will expedite Department review of the construction documents.</p>
10.7 Construction inspection	<p>During construction of a new landfill disposal unit or final cover system, the Permittee must provide the Department with a summary and schedule of planned construction activities in order to facilitate Department inspection during periods of construction.</p>
10.8 Construction report submittal	<p>Within 90 days of completing construction of a landfill disposal unit, a final cover system over an existing or new unit, or a major appurtenant facility, the Permittee must submit to the Department a <u>Construction Certification Report</u>, prepared by a qualified independent party, to document and certify that all required components and structures have been constructed in compliance with the permit requirements and approved design specifications.</p>

10.9 Construction report content	<p>The construction report must include:</p> <ul style="list-style-type: none">• An executive summary of the construction project and any major problems encountered;• A list of the governing construction documents;• A summary of all construction and CQA activities;• Manufacturers certifications for conformance of all geosynthetic materials with project specifications;• Test data documenting soil materials conformance with project specifications;• A summary of all CQA observations, including daily inspection records and test data sheets documenting materials deployment and installation in conformance with project specifications;• Problem identification and corrective measures implemented;• Designer acceptance reports for errors and inconsistencies;• A list of deviations from design and material specifications, including documentation justifying the deviations, copies of change orders and recorded field adjustments, and copies of written Department approvals for deviations and change orders;• Signed certificates for subgrade acceptance prior to placement of soil liner and for acceptance of soil liner prior to deployment of geomembrane liner; and• Photographs and as-constructed drawings, including record surveys of subgrade, soil liner, granular drainage layer and protective soil layer, and a certification statement(s) and signatures legally representing the CQA consultant, designer and facility owner, one of which is that of a professional engineer with current Oregon registration.
10.10 Approval to use	<p>The Permittee must not dispose of solid waste in newly constructed disposal units until the Department has accepted the Construction Certification. If the Department does not respond to the Construction Certification Report within 30 days of its receipt, the Permittee may place waste in the unit.</p>
10.11 Submittal address	<p>All submittals to the Department under this section must be sent to:</p> <p style="text-align: center;">Oregon Department of Environmental Quality Manager, Solid Waste Program 400 E Scenic Drive, Suite 307 The Dalles, OR 97058 Telephone: (541) 298-7255</p>

11.0 RECYCLING REQUIREMENTS

- 11.1 In this section** This section describes the requirements associated with recycling operations of source separated materials conducted at the facility:
- Materials;
 - Receiving location;
 - Material use;
 - Recycling information;
 - Sign; and
 - Storage.
-
- 11.2 Materials** The Permittee must provide a place for receiving the following recyclable materials:
- | | |
|---|--|
| <input checked="" type="checkbox"/> ferrous scrap metal | <input checked="" type="checkbox"/> non-ferrous scrap metal (including aluminum) |
| <input checked="" type="checkbox"/> motor oil | <input type="checkbox"/> corrugated cardboard and kraft paper (brown paper bags) |
| <input type="checkbox"/> newspaper | <input type="checkbox"/> tin cans |
| <input type="checkbox"/> container glass | |
| <input type="checkbox"/> hi-grade office paper | |
-
- 11.3 Receiving location** The place for receiving recyclable material must be located at the disposal site or at another location more convenient to the population served by the disposal site. The recycling center must be available to every person whose solid waste enters the disposal site.
-
- 11.4 Material use** All source separated recyclable materials must be reused or recycled.
-
- 11.5 Recycling information** The Permittee must provide recycling information to disposal site users on printed handbills which includes the following:
- The location of the recycling center at the disposal site or another location;
 - The hours of operation of the recycling center;
 - Instructions for correct preparation of accepted source separated recyclable material;
 - The material accepted for recycling; and
 - Reasons why people should recycle.
-
- 11.6 Sign** A sign must be prominently displayed which indicates:
- The availability of recycling at the disposal site or another location;
- Note: the sign must indicate the recycling center location, if not at the disposal site
- The materials accepted at the recycling center; and
 - The hours of operation of the recycling center (if different than disposal site hours).
-
- 11.7 Storage** All recyclable materials, except car bodies, white goods and other bulky items, must be stored in containers unless otherwise approved by the Department.
-

SITE CLOSURE

12.0 CLOSURE CONSTRUCTION AND MAINTENANCE

12.1	In this section	<p>This section describes requirements for closure construction and maintenance at the facility, including:</p> <ul style="list-style-type: none">• Worst-case plan development;• Notification;• Closure permit;• Closure plan approval;• Closure schedule;• Final cover;• Vegetation;• Surface contour maintenance;• Deed record; and• Submittal address.
12.2	Worst-case plan development	<p>The Permittee must maintain an up-to-date conceptual "worst-case" closure plan and a conceptual post-closure plan. The plans must be placed in the facility file.</p> <p>Reference: The plans must comply with 40 CFR, Part 258, Subpart F, and OAR 340-094-0110.</p>
12.3	Notification	<p>The Permittee must notify the Department when the conceptual "worst-case" closure and conceptual post-closure care plans are updated and placed in the file.</p>
12.4	Closure permit	<p>At least five (5) years prior to the anticipated final closure of the landfill, the Permittee must apply for a closure permit in accordance with OAR 340-094-0100.</p>
12.5	Closure plan approval	<p>At least 6 months prior to final closure of any portion of the landfill, the Permittee must submit for approval detailed engineering plans, specifications, and a schedule for closure.</p> <p><u>Reference:</u> The <i>Solid Waste Landfill Guidance, September 1996</i>, provides information on applicable elements of a Closure Plan. Following the organizational format provided in the Guidance will expedite Department review of the plan.</p>
12.6	Closure schedule	<p>The Permittee must close each area of the landfill on the schedule approved by the Department.</p>
12.7	Final cover	<p>Unless otherwise approved by the Department, the final landfill cover must be:</p> <ul style="list-style-type: none">• At least three feet thick {OAR 340-094-0120(2)(a)};• Minimize infiltration of precipitation as required by 40 CFR Part 258.60; and• Graded to compensate for estimated differential settlement such that final (post-settlement) slopes will maintain positive drainage between two (2) percent and thirty (30) percent.
12.8	Vegetation	<p>The Permittee must establish and maintain a dense, healthy growth of vegetation over the closed areas of the landfill consistent with the proposed final use.</p>

12.9 Surface contour maintenance The Permittee must maintain the final surface contours of the landfill cover so that erosion and ponding of water is prevented to the maximum extent practicable. Erosion damage (cuts) must be repaired and seeded so that all waste remains covered.

The Permittee must refill with soil, grade, and seed all areas that have settled or where water ponds, and all areas where the cover soil has been damaged by cracking or erosion. Areas where vegetation has not been fully established must be fertilized, re-seeded, and maintained.

12.10 Deed record Within 30 days after final closure of the disposal site, the Permittee must record the presence of the waste in the property deed record on file with the county.

12.11 Submittal address All submittals to the Department under this section must be sent to:

Oregon Department of Environmental Quality
Manager, Solid Waste Program
400 E Scenic Drive, Suite 307
The Dalles, OR 97058
Telephone: (541) 298-7255

13.0 FINANCIAL ASSURANCE

13.1 In this section This section describes requirements for financial assurance at the facility, including:

- Financial assurance plan;
- Submittal;
- Use of financial assurance;
- Continuous nature; and
- Submittal address.

13.2 Financial assurance plan The Permittee must maintain a financial assurance plan and provide financial assurance for the costs of site closure, post-closure care, and corrective action, if any. The plan must be placed in the facility file.

Reference: The plan must be prepared in accordance with OAR 340-94-140. Acceptable mechanisms are described in OAR 340-94-145.

13.3 Submittal The Permittee must submit to the Department evidence of the financial assurance consisting of:

- A copy of the first financial assurance mechanism; and
- A written certification that the financial assurance meets all state requirements.

Note: The Permittee must annually review and update financial assurance in accordance with OAR 340-094-0140(6)(e).

13.4 Use of financial assurance The Permittee must not use the financial assurance for any purpose other than to finance the approved closure, post-closure, and corrective action activities or to guarantee that those activities will be completed.

13.5 Continuous nature Continuous financial assurance must be maintained for the facility until the Permittee or other person owning or controlling the site is no longer required to demonstrate financial responsibility for closure, post-closure care, or corrective action (if required).

13.6 Submittal address All submittals to the Department under this section must be sent to:
Oregon Department of Environmental Quality
Manager, Solid Waste Program
400 E Scenic Drive, Suite 307
The Dalles, OR 97058
Telephone: (541) 298-7255

ENVIRONMENTAL MONITORING

14.0 ENVIRONMENTAL MONITORING PLAN (EMP)

- 14.1 In this section** This section describes requirements for an Environmental Monitoring Plan (EMP) for the facility, including:
- EMP submittal;
 - EMP contents;
 - EMP maintenance;
 - Long term environmental monitoring;
 - Additional environmental monitoring points; and
 - Submittal address.
-
- 14.2 EMP submittal** Within 180 days of the permit issue date, the Permittee must submit, for approval, two copies of an updated Environmental Monitoring Plan (EMP) to the Department. The plan must be prepared and stamped by either a Geologist or a Certified Engineering Geologist, with current Oregon registration. Upon approval, the plan is incorporated into this permit by reference.
-
- 14.3 EMP contents** The updated EMP must include plans that implement an environmental monitoring program that will characterize potential facility impacts. The updated plan may consist of the previous approved EMP with any changes or additions since that time (i.e., approved permit-specific concentration limits, revised parameter lists, revised schedules, new wells...). At a minimum, the updated EMP should address the issues and topics found in Section 10 of DEQ's Solid Waste Guidance, September 1, 1996.
-
- 14.4 EMP maintenance** The Permittee must revise the EMP as necessary to keep it reflective of current facility conditions, procedures, and sampling requirements or changes. The Permittee must submit all EMP revisions to the Department for approval.
-
- 14.5 Long-term environmental monitoring** After approval of any Permit-Specific Concentration Limits (PSCLs), Concentration Limit Variances (CLVs), Action Limits (ALs), or Site-Specific Limits (SSLs) the Permittee must update the EMP to reflect the long-term monitoring plan and submit the updated plan for Department review and approval.
- Note: See also the requirements for establishing PSCLs, ALs, or SSLs in this permit, procedures for establishing CLVs can be found in OAR 340-40-030(4).
-
- 14.6 Additional environmental monitoring points** Any new or replacement monitoring point or device established during the time frame of this permit must be incorporated into the Environmental Monitoring Plan (EMP). The updated plan must be resubmitted to the Department for approval.
-
- 14.7 Submittal address** All required copies of submittals to the Department under this section must be received by the due date and delivered to:
- Oregon Department of Environmental Quality
Manager, Solid Waste Program
400 E Scenic Drive, Suite 307
The Dalles, OR 97058
Telephone: (541) 298-7255
Fax: (541) 298-7330
-

15.0 ENVIRONMENTAL SAMPLING REQUIREMENTS

15.1 In this section This section also describes general sampling requirements, including:

- Notification;
- Split sampling;
- Monitoring schedule;
- Interim monitoring;
- Monitoring after EMP approval;
- Changes in sampling or split sampling; and
- Leachate and liquid volume monitoring.

15.2 Notification The Department must receive written notification of all upcoming sampling events at least ten (10) working days prior to the scheduled date of the sampling event at the following address:

Oregon Department of Environmental Quality
 Manager, Solid Waste Program
 400 E Scenic Drive, Suite 307
 The Dalles, OR 97058
 Telephone: (541) 298-7255
 Fax: (541) 298-7330

15.3 Split sampling The Permittee must split samples with the Department when requested, and must schedule all requested split-sampling events with the Department laboratory at least forty-five (45) days prior to the sampling event. The Permittee is required to sample for parameter groups 1, 2, and 3, for all sampling points.

The following sampling events must be conducted as split sampling events with the Department:

- Fall 2010;
- Spring 2013; and
- Fall 2016.

Reference: Parameter Groups are further defined in Attachment 1

15.4 Monitoring schedule The Permittee must perform environmental monitoring according to the approved EMP. Quarters are defined as the following:

If sampling in the...	Schedule the sampling event	
	On, or after...	But on, or before...
Winter	January 1	February 28
Spring	April 1	May 31
Summer	July 1	August 31
Fall	October 1	November 30

15.5 **Interim
monitoring**

Until superseded by an updated Environmental Monitoring Plan approved by the Department, the Permittee must conduct all environmental sampling in accordance with the following documents as approved by the Department:

- October 9, 2001 Environmental Monitoring Plan Columbia Ridge Landfill and Recycling Center, Gilliam County, Oregon, prepared by HWA Geosciences;

The Permittee must commence semiannual groundwater sampling at those wells which are downgradient of the existing filling area, MWS-04 and MWS-05. All semiannual groundwater sampling must be conducted during the spring (April 1 - May 31) and fall (October 1 – November 30) quarters. Upgradient well MWS-02 and MWS-03 are to be sampled annually during the fall quarter (October 1 – November 30).

The Department must approve any changes to the sampling program in writing prior to implementation. The Permittee must notify the Department's Eastern Region office located in The Dalles in writing of all upcoming sampling events at least 10 days prior to the sampling event.

Reference: Parameter Groups are further defined in Attachment 1

15.6 Monitoring after EMP approval	Upon approval, the Permittee must perform all environmental monitoring at the facility in accordance with the site-specific Environmental Monitoring Plan (EMP), including any conditions of the approval, and all approved amendments and updates.
15.7 Changes in sampling or split sampling	<p>The Department must approve any changes to the sample program in writing prior to implementation. The Permittee may make written requests to change: sample frequencies; parameters to be sampled for; or locations to be sampled. Once approved, this will become part of the EMP requirements by reference.</p> <p>The Department reserves the right to add to or delete from the list of scheduled sampling events, sample locations, parameters to be sampled for, and to conduct unscheduled samplings or split sampling.</p> <p>In the event of changes to the split-sampling schedule, the Department will make an effort to notify the Permittee of any changes at least 30 days prior to the event.</p>
15.8 Leachate and liquid volume monitoring	<p>The Permittee must measure, record, and place in the Operating Record and the Annual Environmental Monitoring Report the following:</p> <ul style="list-style-type: none">• The weekly volume of leachate removed from each primary leachate collection sump;• The weekly volume of leachate disposed by each implemented leachate disposal method;• The weekly volume of liquid removed from each secondary leachate collection sump, servicing an active disposal unit(s).

16.0 ESTABLISHING PERMIT-SPECIFIC CONCENTRATION LIMITS

16.1 In this section	<p>This section describes requirements for establishing Permit-Specific Concentration Limits (PSCs), Concentration Limit Variances (CLVs), Action Limits (ALs), and/or Site-Specific Limits (SSLs) for groundwater monitoring, including:</p> <ul style="list-style-type: none">• Gathering Data;• Statistical analysis;• PSCs;• Changing PSCs, ALs or SSLs; and• Setting and changing CLVs.
16.2 Gathering data	Semi-annual groundwater sampling for compliance well MWS-07 shall begin starting 2012.
16.3 Statistical analysis	<p>The Permittee must perform statistical evaluations of monitoring results for each sampling event in accordance with 40 CFR 258.53 or other methods approved of in advance by the Department in order to establish compliance concentration limits.</p> <p><u>References:</u> <i>Statistical Analysis of Groundwater Monitoring Data at RCRA facilities, Addendum to Interim Final Guidance</i>, USEPA, June 1992</p> <p><i>Statistical Guidance for all RCRA Sites</i>, DEQ:SWPC, August 3, 1992</p>

16.4	PSCLs	Permit-Specific Concentration Limits (PSCLs) for long term monitoring program parameters have been established in the following document: <ul style="list-style-type: none"><li>◦ October 9, 2001 Environmental Monitoring Plan, Columbia Ridge Landfill and Recycling Center, Gilliam County, Oregon, prepared by HWA Geosciences.
16.5	Changing PSCLs, ALs, and/or SSLs	Based on the Department-approved statistical methodology, the Permittee can review, update or revise PSCLs every five years. If the Permittee can demonstrate to the Department's satisfaction that the background groundwater quality has significantly changed since the PSCL, AL, or SSL was established, and this change is not due to any influence from the permitted facility, then the Permittee can propose for Department approval a revised level of the specific PSCL(s), AL(s), or SSL(s) that are affected.
16.6	Setting and changing CLVs	OAR – 340-040-0030 (4) explains how CLVs are set and changed.

17.0 ENVIRONMENTAL MONITORING STANDARDS

17.1	In this section	This section describes requirements for evaluating compliance with environmental monitoring standards, including: <ul style="list-style-type: none"><li>◦ Rule;<li>◦ Compliance points;<li>◦ Review of monitoring results;<li>◦ Resampling results;<li>◦ Leak Detection System;<li>◦ Methane limits; and<li>◦ Methane exceedances.
17.2	Rule	The Permittee must not allow the release of any substance from the landfill into groundwater, surface water, or any other media which will result in a violation of any applicable federal or state air or water limit, drinking water rules, or regulations beyond the solid waste boundary of the disposal site or an alternative boundary specified by the Department.
17.3	Compliance points	The following monitoring locations are designated as compliance points: <ul style="list-style-type: none"><li>◦ MWS04, MWS05 and MWS07(2012); and<li>◦ Basin Lysimeters – All basin lysimeters monitoring leak detection system.

17.4 Review of monitoring results

The Permittee must review the analytical results after each monitoring event according to the following table.

If data show results are...	Then...
above any one PSCL, CLV, or AL, or more than two SSLs (if established) or if results indicate a significant change in water quality at any monitoring point, <u>Note: Examples of significant changes</u> <ul style="list-style-type: none"> • Detection of a VOC or other hazardous constituent not detected in background; • Exceedance of a Table 1 or 3 value listed in OAR 340-40 unless the background water quality is above these numerical limits; • Exceedance of a Safe Drinking Water Standard; and • Detection of a compound in an order of magnitude higher than background. 	<ol style="list-style-type: none"> 1. Notify the Department in writing within 10 days of receipt of laboratory results; and, 2. Perform resampling immediately and evaluate results as described below. <u>Note: If this is a known release, previously confirmed to the department in writing, resampling is not required.</u>
None of the above	Continue groundwater monitoring with next scheduled sampling event.

Note: PSCLs, CLVs, ALs, and SSLs established to date are listed in the Environmental Monitoring Plan. All PSCLs and SSLs, when revised, will be listed in Attachment 2.

17.5 Resampling results

Upon receipt of data from resampling, the permittee must review the results according to the following table.

If resampling data show results...	then: ...
that confirm the exceedance of at least one permit-specific concentration limit (PSCL) or concentration limit variance (CLV), *See Attachment 1: Parameter Groups	<ol style="list-style-type: none"> 1. Notify the Department in writing within 10 days of receipt of laboratory data, or within 60 days of the sample date (whichever occurs first); and 2. Submit a Remedial Investigation workplan for Department approval within 90 days of the date of resampling. Plan must specify how the objectives of OAR 340-40 will be met by the proposed investigation. This may include the monitoring of Groups 4 & 6* parameters, in addition to routine detection monitoring.
that confirm the significant change in water quality results noted in the routine sampling event or confirm that at least any one AL or more than two SSLs were exceeded,	<ol style="list-style-type: none"> 1. Notify the Department in writing within 10 days of receipt of laboratory data, or within 60 days of the sample date (whichever occurs first); and 2. Submit a plan within 30 days (unless another time period is authorized) for developing an assessment program to the Department.
that do not confirm the results noted in the routine sampling event,	<ol style="list-style-type: none"> 1. Continue with routine monitoring; and 2. Discuss the data from the routine sampling event and the resampling results in the next annual environmental monitoring report.

17.6	Leak detection system (LDS)	If the Permittee observes the presence of liquids in the leak detection system (LDS), then the permittee must commence the sampling and analysis and reporting procedures defined in the Department approved Environmental Monitoring Plan (EMP). If landfill impacts are confirmed in this LDS and/or the LDS is compromised as a compliance point, then the Department will require further investigation as described in the Environmental Monitoring Plan.
17.7	Methane limits	The concentration of methane must not exceed: <ul style="list-style-type: none">◦ 25 percent of the Lower Explosive Limit for methane in onsite structures (excluding gas control structures or gas recovery system components); or◦ The Lower Explosive Limit for methane at the facility boundary. <p><u>Note:</u> The Lower Explosive Limit for methane is 5 percent.</p>
17.8	Methane exceedances	If methane levels exceed the specified limits, then the Permittee must: <ul style="list-style-type: none">◦ Immediately take all necessary steps to ensure protection of human health;◦ Within 7 days of detection (unless the Department approves an alternative schedule), enter the methane levels in the operating record and describe measures taken to protect human health and safety; and,◦ Within 60 days of detection, implement a remediation plan for the methane releases, incorporate the plan into the monitoring records, and notify the Department that the plan has been implemented.

18.0 RECORDKEEPING AND REPORTING – ENVIRONMENTAL MONITORING

- 18.1 In this section** This section describes recordkeeping and reporting requirements associated with environmental monitoring, including:
- Annual environmental monitoring report (AEMR);
 - Statement of compliance;
 - Annual environmental monitoring report contents;
 - Submittal address;
 - Split sampling submittal;
 - Lab address; and
 - Department response to split samples.
-
- 18.2 Annual environmental monitoring report (AEMR)** Prior to April 30 of each year for the duration of this permit, the Permittee must submit to the Department two copies of an annual monitoring report covering the past year from January 1st to December 31st. The report must be prepared and stamped by either a Geologist or a Certified Engineering Geologist, with current Oregon registration. The report must follow the format approved in the Environmental Monitoring Plan.
- Note: Whenever possible, the Permittee must submit two-sided copies of all reports.
-
- 18.3 Statement of compliance** A short (approximately one-page) cover letter must accompany the AEMR that:
- Compares the analytical results with the relevant monitoring standards (PSCLs, CLVs, ALs, or SSLs);
 - States whether or not federal or state standards were exceeded for the relevant media; and
 - States whether or not a significant change in water quality has occurred.
-
- 18.4 Annual environmental monitoring report (AEMR) contents** Each AEMR must reflect actual and true conditions at the facility. Data presented in the reports must be as error-free as possible compared to the original field and lab data. The AEMR, at a minimum, must contain:
- Review of all significant events that occurred at the site during the last year;
 - Review of the monitoring network performance and recommendations for changes;
 - Summary of all the data collected in the past year including, but not limited to: groundwater, leachate (lagoon and basin lysimeters), LFG (include any air sample data), and soil samples;
 - A summary of any data problems (examples could include, but are not limited to QA/QC failures, flagged data, switched samples, etc.);
 - Piezometric maps for each sampling event for each monitored water bearing zone of concern;
 - Time history plots for field specific conductivity, dissolved oxygen, and all group 1b and group 2a and 2b parameters;
 - Box plots for field specific conductivity, dissolved oxygen, and all group 1b and group 2a and 2b parameters;
 - For each location and sample event an anion-cation balance for each location that has adequate data. An additional explanation must be included for any balance outside of $\pm 10\%$ in error;
 - A copy of all field and lab data for the past year.
-

- 18.5 Submittal address** Except where otherwise noted, all required copies of submittals to the Department under this section must be received by the due date and delivered to:
Oregon Department of Environmental Quality
Manager, Solid Waste Program
400 E Scenic Drive, Suite 307
The Dalles, OR 97058
Telephone: (541) 298-7255
Fax: (541) 298-7330
-
- 18.6 Split sampling submittal** Within 90 days of any split sampling event, the Permittee must submit the following information from the split sampling event to the Department's laboratory:
- A copy of all information pertinent to the sample collection handling, transport and storage, including field notes;
 - Copies of all laboratory analytical reports;
 - Copies of all laboratory QA/QC reports;
 - Site map showing flow directions and contours; and
 - Any other data or reports requested by the Department.
- 18.7 Lab address** All split sampling reporting must be sent to:
Oregon Department of Environmental Quality
Lab, Groundwater Monitoring Section
1712 SW 11th Avenue
Portland, OR 97201
(503) 229-5983
- 18.8 Department response to split samples** If requested by the Permittee and after the Permittee has submitted all split sampling data information, the Department lab may send the permittee a copy of:
- The Department's analysis of the split sample;
 - A copy of the QA/QC report;
 - A copy of the analytical report; and/or,
 - A copy of field data sheets.

19.0 ENVIRONMENTAL MONITORING NETWORK

19.1 In this section	This section describes requirements for the environmental monitoring network, including: <ul style="list-style-type: none">• Well installation;• Monitoring devices;• Access to monitoring devices;• Damage reporting;• Device construction;• Construction reporting;• Gas system maintenance;• Gas system damage repair; and• Submittal address.
19.2 Well installation	A workplan must be submitted at least 90 days before construction of any new gas and groundwater monitoring wells. All approved groundwater detection and/or compliance wells must be installed and monitored quarterly at least 12 months before refuse is accepted for disposal.
19.3 Monitoring devices	The Permittee must protect, operate, and maintain gas, groundwater, leachate, and surface water monitoring devices so that samples representative of actual conditions can be collected.
19.4 Access to monitoring devices	The Permittee must maintain reasonable all-weather access to all monitoring devices and/or locations in order to facilitate sample collection and/or inspection.
19.5 Damage reporting	Any damage to a monitoring device must be reported to the Department in writing within fourteen (14) days of the discovery, along with a description of proposed repair or replacement measures and a time schedule for completion of this work. <u>Examples:</u> damage impairing well function or changing the physical location to any degree.
19.6 Device construction	All monitoring well abandonment (decommissions), replacements, repairs, and installations must be conducted to comply with the Water Resources Department Rules OAR 690-240 and with the Department's <i>Guidelines for Groundwater Monitoring Well drilling, Construction, and Decommissioning</i> dated August 1992.
19.7 Construction reporting	All monitoring well repairs, abandonments, replacements, and installations, including driller's logs, well location information, and construction information must be documented in a report prepared and stamped by either a Geologist or a Certified Engineering Geologist, with current Oregon registration. The report must be submitted to the Department within thirty (30) days of the action and included in the next AEMR.
19.8 Gas system maintenance	The Permittee must operate and maintain in good working order the landfill gas containment, collection, removal, treatment, and monitoring system such that nuisance odors are deterred to the maximum extent practical and methane concentrations do not exceed compliance limits.
19.9 Gas system damage repair	Within 60 days of discovery of the damage, the Permittee must replace or repair the damage to any equipment in the gas system and submit a written inspection report to the Department.

**19.10 Submittal
address**

All required copies of submittals to the department under this section must be received by the due date and delivered to:

Oregon Department of Environmental Quality
Manager, Solid Waste Program
400 E Scenic Drive, Suite 307
The Dalles, OR 97058
Telephone: (541) 298-7255
Fax: (541) 298-7330

COMPLIANCE SCHEDULE

20.0 SUMMARY OF DUE DATES

20.1 Summary The following is a summary of event-driven reporting required by this permit. This section does not include routine reporting and submittals required by this permit.

Due Date	Activity	See section...
Within five (5) years of permit issuance	Submit updated Operations Plan	7.2 Operations Plan
By no later than May 31, 2015	Submit site development plan	10.2 Site development plan
6 months before any construction (if possible)	Submit design plans	10.4 Design plans
90 days after completion of any major construction	Submit construction certification report	10.8 Construction report
5 years prior to closure	Submit closure permit application	12.4 Closure permit
Annually	Submit copy of financial assurance mechanism and certification	13.3 Financial Assurance plan
Within 180 days of permit issuance	Submit updated Environmental Monitoring Plan (EMP)	14.2 Environmental Monitoring Plan
By April 30 for each year this permit is in effect	Submit an Annual Environmental Monitoring Report (AEMR)	18.2 AEMR
30 days of any well construction	Submit well construction report	19.7 Construction reporting

ATTACHMENTS

21.1 Attachment listing

The following attachments to this document are:

Number	Description
1	Parameter Groups
2	Permit-specific concentration limits

ATTACHMENT 1: PARAMETER GROUPS

In this attachment

This attachment describes the parameter groups and any associated requirements for environmental monitoring.

Note: Method means EPA SW 846 Method [suggested methods are in square brackets].

**Group 1a:
Field indicators**

The following parameters comprise the field indicators parameter group:

Elevation of water level	Specific Conductance
pH	Dissolved Oxygen
Temperature	Eh

These parameters must be measured in the field at the time samples are collected, either down-hole in situ, in a flow-through well, or immediately following sample recovery, with instruments calibrated to relevant standards.

**Group 1b:
Leachate indicators**

The following parameters comprise the laboratory indicators parameter group:

Hardness (as CaCO ₃)	Total Dissolved Solids (TDS)
Total Alkalinity (as CaCO ₃)	Total Suspended Solids (TSS)
Total Organic Carbon (TOC)	Chemical Oxygen Demand (COD)
pH (lab)	Tannin/Lignin
Specific Conductance (lab) [Method 9050]	

Sample handling, preservation, and analysis are determined by requirements for each individual analyte: EPA or AWWA Standard Methods techniques must be followed.

**Group 2a:
Common anions and cations**

The following parameters comprise the common anions and cations parameter group:

Calcium (Ca)	Manganese (Mn)
Sulfate (SO ₄) [Method 9035]	Magnesium (Mg)
Ammonia (NH ₃)	Chloride (Cl) [Method 9250]
Sodium (Na)	Carbonate (CO ₃)
Nitrate (NO ₃) [Method 9210]	Potassium (K)
Silica (SiO ₂)	Bicarbonate (HCO ₃)
Iron (Fe)	Ammonium (NH ₄)
Fluoride (F)	

Dissolved concentrations must be measured. Samples must be field-filtered and field-preserved according to standard DEQ and/or EPA guidelines and analyzed by appropriate EPA or AWWA Standard Methods techniques. Results must be reported in mg/L and meq/L.

**Group 2b:
Trace metals**

The following parameters comprise the trace metals parameter group:

Antimony (Sb)	Chromium (Cr)	Selenium (Se)
Arsenic (As)	Cobalt (Co)	Silver (Ag)
Barium (Ba)	Copper (Cu)	Thallium (Tl)
Beryllium (Be)	Lead (Pb)	Vanadium (V)
Cadmium (Cd)	Nickel (Ni)	Zinc (Zn)

If the Total Suspended Solids concentration is...?	then analyze for...
less than or equal to 100.0 mg/L in the sample	total concentrations (unfiltered)
Greater than 100.0 mg/L in the sample	both total (unfiltered) and dissolved (field-filtered)

Samples must be field-preserved according to standard DEQ and/or EPA guidelines and analyzed by EPA Method 6010 or department-approved equivalent.

**Group 3:
Volatile organic constituents**

Analysis for all compounds detectable by EPA Method 8260A or EPA Method 524.2, including a library search to identify any unknown compounds present. EPA Method 8260 comprises the volatile organic constituents parameter group. Facilities that want to use EPA Methods 8021, or 8240B, as an alternative must obtain approval by the Department prior to use.

**Group 4:
Assessment monitoring**

The following analyses comprise the assessment monitoring parameter group:

- Semi-volatile Organic Constituents, including Phenols, EPA Method 8270
- Mercury, EPA Method 7470
- Cyanide, EPA Method 9010
- Nitrite

All Method 8270 analyses must include a library search to identify any unknown compounds present.

**Group 5:
Surface water and leachate**

The following parameters comprise the surface water parameter group:

- Total Kjeldahl Nitrogen (TKN)
- Total Coliform Bacteria [EPA Method 9131]
- Total Phosphorus (P)
- Fecal Coliform Bacteria [EPA Method 9131]
- Orthophosphate (PO₄)
- E. Coli
- Biological Oxygen Demand (BOD)
- Total Halogenated Organics (TOX) [EPA Method 9020B]

**Group 6:
Other Assessment parameters**

The following comprise additional assessment parameters:

- Dioxins and Furans [EPA Methods 8280 and/or 8290]
- Phenolics [EPA Methods 9065, 9066, and 9067]
- PCBs [EPA Methods 8080 and 8270]
- Pesticides, Herbicides and Fungicides [EPA Methods 8080, 8141, 8150, 8151, 8270]



PUBLIC HEALTH
ALWAYS WORKING FOR A SAFER AND
HEALTHIER COMMUNITY

Chelan-Douglas Health District

200 Valley Mall Parkway, East Wenatchee, WA 98802

Personal Health: 509/886-6400 • FAX 886-6478

Environmental Health: 509/886-6450 • FAX 886-6449

Maternal Child Health: 509/886-6400 • FAX 886-6436

CHELAN-DOUGLAS HEALTH DISTRICT

COMBINED OPERATING PERMIT

for

**MUNICIPAL SOLID WASTE LANDFILLING AND
SOLID WASTE HANDLING FACILITY**

Section 1.0 Permit Administration

1.1 Facility Name: Greater Wenatchee Regional Landfill and Recycling Center (GWRLRC)
Facility Location: 191 South Webb Road, Douglas County, Washington

1.2 Parcel numbers and acreage: 22211130000 (110 acre), 22211410001(38.1 acre), 22211410002 (30 acre), 22211420002 (19.2 acre), 22211420004 (9.1 acre), 22211420003 (9.2 acre), 22211420005 (9.6 acre), 22211420006 (10 acre), 22211420009 (9.1 acre), 22211420007 (9.5 acre), 22211420008 (8.4 acre)- total 262.2 acres.

1.3 The Permittee

Owner/Operator: Waste Management of Washington, Inc.
Name of Contact: David K. Lowe
Address: 191 S. Webb Road, East Wenatchee, WA 98802
Telephone: (509)884-2802

1.4 Issued in Response to:

- Solid waste permit application received on January 16, 2007, revision received August 2, 2007
- Douglas County Conditional Use Permit, application received June 1, 2005 and revisions
- Douglas County Expanding Non Conforming Use, April 1, 2005 and subsequent revisions
- Douglas County Recreational Overlay, April 1, 2005, and subsequent revisions
- Department of Ecology Air Quality Notice of Construction Permit application received February 1, 2006 and subsequent additional information
- Douglas County Hearing Examiner Decision, IV Conditions of Approval, February 1, 2007
- Environmental Impact Statement January 4, 2007

The determination to issue this permit is based on findings and technical information included in the permit record.



Marc Marquis, ID, REHS
Director of Environmental Health
Chelan-Douglas Health District

Date 7/2/10

Date of Issuance: 7/11/08 Expiration Date: July 10, 2018

Date of Renewal 7/2/10



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Chelan-Douglas Health District

200 Valley Mall Parkway, East Wenatchee, WA 98802

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CHELAN-DOUGLAS HEALTH DISTRICT

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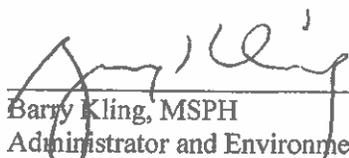
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Owner/Operator: Waste Management of Washington, Inc.
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- Douglas County Hearing Examiner Decision, IV Conditions of Approval, February 1, 2007
- Environmental Impact Statement January 4, 2007

The determination to issue this permit is based on findings and technical information included in the permit record.


Barry Kling, MSPH
Administrator and Environmental Health Director
Chelan-Douglas Health District

Date 12/23/13

Date of Issuance: 7/11/08 Expiration Date: Operational life of the facility

Date of Renewal 7-11-18

- 2.1 **Definitions** unless otherwise specified, all terms are as defined in chapters 173-351, 173-350 and 173-304 WAC as applicable.
- 2.2 **Authorization.** The Permittee is hereby authorized to conduct activities associated with landfilling of municipal solid waste, inert waste storage and crushing, material recovery operations and leachate impoundment in conformance with the attached general and specific conditions upon the basis of information supplied in the permit application and in compliance with chapter Revised Code of Washington (RCW) 70.95.163, chapter 173-351 Washington Administrative Code (WAC) and 173-350 WAC, Chelan Douglas Health District Sanitary Code and all relevant federal, state, (including state air quality and water quality regulations) and local regulations (including noise regulations). Landfill operators shall comply with the requirements established in chapter 173-300 WAC, Certification of Operators of Solid Waste Incinerator and Landfill Facilities.
- 2.3 This permit may be suspended or revoked according to the terms set forth in section 11.5 herein. If the permit is suspended or revoked, the Permittee may appeal the action according to the terms of the permit and RCW 70.95.210. See section 11.1.
- 2.4 This permit is transferable only upon prior written approval of the Chelan-Douglas Health District. The prospective transferee must demonstrate the ability to comply with laws, regulations and permit conditions.
- 2.5 This permit is subject to renewal in accordance with Section 11.2 of the General Permit Processes, until reissuance is required under Section 11.3.
- 2.6 **Description of Permitted Units, Scope of this Permit and Authorized Activities.** The Permittee is authorized to conduct the following activities during the specified times at municipal solid waste landfill units as described below:
- a.
 - i. Municipal solid waste handling facility unit name/description: **North Berm.**
 - ii. Rule applying to this unit: 173-304 and 173-351 WAC
 - iii. Types of waste authorized in this unit: See section 5.1
 - iv. Authorized design elevation as per Engineering Plan 0-2 (1/04).
 - v. Authorized design volume (including final cover) (N/A) yd³.
 - vi. Earliest authorized start of activity: Closed
 - vii. Latest authorized completion date: November 1, 2000.
 - b.
 - i. Municipal solid waste handling facility unit name/description: **Trench 1.**
(Includes area adjacent to east of Trench 1)
 - ii. Rule applying to this unit: 173-304 and 173-351 WAC
 - iii. Types of waste authorized in this unit: See Section 5.1.
 - iv. Authorized design elevation as per Engineering Plan 0-2 (1/04).
 - v. Authorized design volume(including final cover): NA yd³
 - vi. Earliest authorized start of activity: Closed
 - vii. Latest authorized completion date: November 1, 2000
 - c.
 - i. Municipal solid waste handling facility unit name/description: **Trench 2.**
 - ii. Rule applying to this unit: 173-304 and 173-351 WAC

- vii. Latest authorized completion date: TBD
- h.
 - i. Municipal solid waste handling facility unit name/description: **Module 6A**
 - ii. Rule applying to this unit: 173-351 WAC
 - iii. Types of waste authorized in this unit: See Section 5.1.
 - iv. Authorized design elevations as per Engineering Plans O-4 for Phase 4 and O-5 for Phase 5.
 - v. Authorized design volume: 857,360 yd³
 - vi. Earliest authorized start of activity: When Phase 3 is complete.
 - vii. Latest authorized completion date: TBD
 - i.
 - i. Municipal solid waste handling facility unit name/description: **Module 6B.**
 - ii. Rule applying to this unit: 173-351 WAC
 - iii. Types of waste authorized in this unit: See Section 5.1.
 - iv. Authorized design elevation as per Engineering Plan O-5 of Phase 5.
 - v. Authorized design volume: 635,170 yd³
 - vi. Earliest authorized start of activity: When Phase 4 is complete.
 - vii. Latest authorized completion date: TBD
 - j.
 - i. Municipal solid waste handling facility unit name description: **Leachate Impoundment 1**
 - ii. Rule applying to this unit: ✓ 173-350 WAC
 - iii. Types of waste authorized in this unit: municipal solid waste leachate.
 - k.
 - i. Municipal solid waste handling facility unit name description: **Materials Recovery Facility**
 - ii. Rule Applying to this unit: ✓ 173-350 WAC
 - iii. Types of waste authorized in this unit: Source separated recyclable materials, not limited to paper, metal and glass as per the local solid waste management plan.

Section 3.0 Demonstrations In granting this permit, the Health District acknowledges the demonstrations found in the January 2007 Appendix "G" of the January 2007 permit application with July 2007 revisions.

Section 4.0 Construction and Operational Procedures

- 4.1 The existing conceptual design for Module 5C, Module 6C and Module 7 require power line relocation and approval from the Washington State Department of Archaeology and Historic Preservation to construct over an archaeologically sensitive site on the talus slope prior to approval to construct.
- 4.2 A comprehensive demonstration is required that shows placing waste over the closed North Berm, will not be a threat to public health, the environment or public safety and meet regulatory performance requirements at the time of the demonstration.
- 4.3 For each new or laterally expanded unit, the Permittee shall have updated financial assurance as per section 9.0 of this permit, and submit final design drawings, construction specifications, construction quality assurance manual and any changes to the Plan of Operation at least sixty (60) calendar days prior to the beginning construction. The Permittee shall not begin construction until

- 5.2 **Air Criteria.** The Permittee must comply with all applicable requirements of Chapter 70.94 RCW and WAC 173-350-040(4) and shall not conduct open burning unless authorized in the approved Plan of Operation and in conformance with state and local requirements. Household waste shall not be openly burned under any conditions.
- 5.3 **Run-on/Run-off Control Systems.** The Permittee shall maintain the run-on/run-off control systems for the active and closed municipal solid waste landfill facility units according to the approved Plan of Operation, Design Report and the approved Engineering Plans.
- 5.4 **Record Keeping.** The Permittee shall keep records required by the Plan of Operation and WAC 173-351-200(10) and other citations in this regulation at an approved location. The Permittee shall notify the Health District when documents (not otherwise excluded from this requirement in the Plan of Operation) have been placed in or added to the operating record. The Permittee shall furnish all information contained in the Operating Record for inspection at all reasonable times to the Health District including the following special reports:
- a. Sewage sludge received for disposal as per WAC 173-308 and WAC 173-351-210(10) shall be reported to the Health District within ten (10) calendar days of the end of each quarter to include: source of sludge; date of disposal; and disposal volume (tons or cubic yards). Sewage sludge quarterly reports shall be accompanied with representative paint filter liquid test results.
 - b. Complaints received by the Permittee and the response(s) to the complaint will be recorded and copies sent to the Health District within ten (10) working days of receipt of the complaint and within ten (10) working days of responding to the complaint.
- 5.5 **Annual Reports.** The Permittee shall submit annual reports for the previous calendar year to the Health District and the Department of Ecology by April 1 of each year, on forms supplied by the Department of Ecology or in a format approved by the Health District and other information as required by the Health District.
- 5.6 **Permanent Posts.** The Permittee shall clearly mark the active area boundaries as authorized in the permit, with permanent posts or using equivalent method clearly visible for inspection purposes.
- 5.7 **Leachate Evaporation Impoundment.** The Permittee may operate the existing leachate evaporation impoundment, as per the Plan of Operation and WAC 173-350-330 with special conditions as follows:
- a. The Closure/Post Closure Plan, financial assurance instrument, Engineering Plan, Engineering Report, and Plan of Operation must be revised to include any new leachate evaporation impoundment within sixty (60) days prior to construction.
 - b. When no longer required for the facility, the leachate evaporation impoundment will be closed, properly dismantled and properly disposed as per the approved Post-Closure Plan.
- 5.8 **Cover Material.**
- a. Compacted waste will be covered fully with a minimum of six inches of compacted soil or alternate daily cover (ADC), after each day of operation. At least six inches of compacted soil will be applied at least every seventh calendar day when ADC is utilized.
 - b. ADC is allowed when conditions are appropriate according to the Plan of Operation. If the Health District has reason to believe continued use of ADC will create a risk to human health and the environment, it shall notify the Permittee, by certified letter to cease. Six

2007 and September 2007, which are hereby approved. The Permittee shall review the Closure/Post-Closure Plan annually and submit revisions as needed, by October 15th of that year.

Section 9.0. Financial Assurance for Closure, Post-Closure and Corrective Action. The Permittee shall maintain financial instruments for Closure, Post-Closure and known corrective actions. The Trust Agreement and Letter of Credit are subject to the following specific condition:

- a. The financial assurance mechanism must be updated and adjusted annually by January 1st, of each year to equal third party costs for worse case closure and post-closure costs of the facility projected for the next twelve months.

Section 10.0 Other Specific Conditions.

10.1 Summary Compliance Schedule for existing leachate impoundment:

- a. Surface Impoundment Leakage response to include;
 - i. Plans for further evaluation of the impoundment liner integrity.
 - ii. Calculate leakage rate of top liner.
 - iii. Estimate of hole size.
 - iv. Calculation of sump volume and depth.
 - v. Repair plan as needed and determined by the District.
 - vi. Respond by December 1, 2008.

10.2 Reconstruction of MW-08A

- a. Conditions for well acceptance:
 - i. Reconstruction will be completed as per June 21, 2012 letter from Dave Lowe and June 18, 2012 letter from SCS Engineers, Louis Caruso, with figures.
 - ii. Both standard detection monitoring and NWTPH-Gx and Dx, SW846 8260 and SW846 8310 will be sampled after successful completion of well reconstruction and development.
 - iii. The District will determine the acceptability of the well after ground water analysis is completed and reviewed by the District.

10.3 Research development and Demonstration Permit

- a. A separate research, development and demonstration permit has been issued for liquids addition as per the approved 10/23/13 permit application.
 - i. Issue date is 1/3/14
 - ii. Expiration date is 1/2/17
 - iii. Three renewals for a maximum operation of 12 years under present rule, 173-351 WAC.

Section 11.0. General Permit Processes

11.1 Transferability

- a. This permit issued pursuant to this regulation is transferable only upon prior written approval of the Health District and a demonstration that the prospective transferee will be able to comply with applicable laws and regulations, permit conditions, and other requirements to which the prospective transferor is subject. Upon approval, the permit shall be reviewed and re-issued.
- b. Upon transfer of ownership of all or part of the facility, a provision must be included in the property deed indicating the period of time during which the facility has been disposing of

- c. The Hearings Board shall hold a hearing in accordance with the provisions of the Administrative Procedure Act, chapter 34.05 RCW, as now or hereafter amended.

Section 13.0 Additional Standard Conditions

- 13.1 **Engineering Plans.** The approved Engineering Plans must be revised as design and regulatory requirements change and sixty (60) calendar days prior to any applicable construction.
- 13.2 **Engineering Report.** The approved Design Report must be revised as design and regulatory requirements change and at least sixty (60) calendar days prior to any applicable construction.
- 13.3 **Amendments.** This permit may be amended by certified letter from the Health District Administrator or his/her authorized designee, at any time prior to its expiration date should circumstances or conditions arise which require immediate compliance for the protection of the public health, welfare or safety.
- 13.4 **Permit Validity.** If any part, section, sentence or paragraph of this permit should be suspended by appropriate action of the Health District, or found invalid by a tribunal or court of competent jurisdiction, the remainder of this permit shall not be affected thereby.

Public Health
Seattle & King County



PERMIT NO. PR0034434

Solid Waste - Facilities

P/E 1012

PERMIT

Storage / Treatment Piles

GRANTED TO LAFARGE

LOCATION 5400 W MARGINAL WAY SW

SEATTLE WA 981061517

FOR A PERIOD BEGINNING **01/01/2015** AND ENDING **12/31/2015**

MAILING ADDRESS

DANIEL WALDRON

5400 W MARGINAL WY SW

SEATTLE WA 981061517

Director

DATED 03/30/2015

BY

Patty Hays

SUBJECT TO ALL STATE LAWS, COUNTY BOARD OF HEALTH RULES AND REGULATIONS, AND/OR CITY OR COUNTY ORDINANCES PERTAINING THERETO. THIS PERMIT MAY BE SUSPENDED OR REVOKED UPON VIOLATION BY THE HOLDER OF ANY OF THE TERMS OF THESE REGULATIONS. THIS PERMIT IS NOT TRANSFERABLE AND MUST BE POSTED IN A CONSPICUOUS PLACE. THIS PERMIT IS NOT VALID UNLESS SIGNED BY OPERATOR. **NEW OWNERS MUST APPLY AND PAY FOR A NEW PERMIT BEFORE BEGINNING OPERATION.**

X

Daniel Waldron

OPERATOR SIGNATURE

Environmental Health Services Division

401 Fifth Avenue, Suite 1100
Seattle, WA 98104

206-263-9566 Fax 206-296-0189

TTY Relay: 711

www.kingcounty.gov/health



Solid Waste Facility Permit # PR0034434

Effective: January 1, 2015

Expires: December 31, 2015

Permit type: Storage or Treatment Pile Facility

Name of Facility: Lafarge

Facility Location: 5400 W. Marginal Way SW, Seattle, WA 98106

Mailing address: 5400 W. Marginal Way SW, Seattle, WA 98106

Facility Owner: Lafarge Corporation

Facility Operator: Lafarge North America
Daniel Waldron

Phone: 206-336-0979

E-mail: daniel.waldron@lafarge-na.com

SUBJECT TO ALL STATE LAWS, COUNTY BOARD OF HEALTH RULES AND REGULATIONS, AND/OR CITY OR COUNTY ORDINANCES PERTAINING THERETO. THIS PERMIT MAY BE SUSPENDED OR REVOKED UPON VIOLATION BY THE HOLDER OF ANY OF THE TERMS OF THESE REGULATIONS. THIS PERMIT IS NOT TRANSFERABLE AND MUST BE POSTED IN A CONSPICUOUS PLACE. THIS PERMIT IS NOT VALID UNLESS SIGNED BY OPERATOR. NEW OPERATORS MUST APPLY AND PAY FOR A NEW PERMIT BEFORE BEGINNING OPERATION.

This facility shall operate in accordance with the approved plan of operation. Deviations from or changes to the plan must be submitted in writing and approved by Seattle-King County Department of Public Health (SKCDPH) prior to implementation. Further conditions of this permit are contained on the following pages.

SEATTLE-KING COUNTY DEPARTMENT OF PUBLIC HEALTH

David Fleming, MD Director and Health Officer

By: 
Darshan S. Dhillon, Supervisor
Solid Waste, Rodent and Zoonotics Program

Date Issuance: May 11, 2015

X _____
Operator Signature

Section 1 - General Permit Conditions

A. The holder of this permit shall comply with the Code of the King County Board of Health Title 10 and WAC 173-350-320 for Piles used for storage or treatment, as well as all applicable local, state and federal regulations. Where any conflicts between any regulations exist, the more stringent shall apply. It is the responsibility of Lafarge to remain informed of these regulations.

B. All conditions of this permit shall be binding in order for the permit to remain valid. Lafarge shall bear responsibility for the actions and omissions of all facility agents and contractors. This condition shall remain in effect for the life of the facility, including closure activities.

C. Lafarge shall allow authorized representatives of the Seattle – King County Department of Public Health (SKCDPH) or the Washington State Department of Ecology (Ecology) to inspect the facility, equipment and records at any reasonable time, regardless of prior knowledge of the inspection.

D. Lafarge shall notify the **SKCDPH Solid Waste office at 206-263-9566** immediately of any spills, releases, contaminations, or threats to human health or the environment, while taking all necessary measures to protect the same.

E. SKCDPH may suspend or revoke this permit if the Lafarge:

- fails to adhere to the terms of this permit and the approved plan of operation,
- fails to meet the compliance schedule
- fails to meet all applicable regulations, or
- fails to provide all information that could be deemed pertinent to the issuance of the permit in an accurate, complete form.

Section 2 - Specific Permit Conditions

A. Lafarge is authorized to operate a storage or treatment pile as defined in BOH Title 10 following the plan of operations dated **November 2009**. Only activities detailed in this plan are approved. The plan of operations is to be posted in the workplace where personnel can readily refer to it and shall be provided upon request to the SKCDPH. Lafarge is charged with informing all agents and contractors of the conditions of the plan of operations.

Note: A new plan of operation dated July 2012 and subsequently in July 2014 were received and are currently still under review by Public Health and Ecology. Additional site plans are being proposed in the near future so review will begin when the entire package is submitted.

B. The facility is restricted to accepting petroleum-contaminated soils and dredged materials. Public Health recently observed jet grout spoils being received at this facility. Public Health is currently reviewing site plans to include jet grout spoils, Hydro-excavation spoils, and vector waste to be considered for acceptance. The materials listed in this section are accepted, but note the permit compliance requirement in Section 5 on the last page of this permit.

Section 3 - Minimum Performance Standards

A. Per WAC 173-350-040, Lafarge and all agents or contractors shall:

- (1) Design, construct, operate, and close the facility in a manner that does not pose a threat to human health or the environment;
- (2) Comply with chapter 90.48 RCW, Water Pollution Control and implementing regulations, including chapter 173-200 WAC, Water Quality Standards for Ground Waters of the State of Washington;
- (3) Conform to the approved local comprehensive solid waste management plan prepared in accordance with chapter 70.95 RCW, Solid Waste Management—Reduction and Recycling; and
- (4) Not cause any violation of emission standards or ambient air quality standards at the property boundary of the facility and comply with chapter 70.94 RCW, Washington Clean Air Act.
- (5) Comply with all other applicable local, state and federal laws and regulations.

B. Lafarge and all agents or contractors shall meet the operating standards of WAC 173-350-320(4)(a) and shall operate the facility to:

- (i) Control fugitive dust;
- (ii) Control access to the pile;
- (iii) Ensure that non-permitted waste is not accepted at the facility;
- (iv) Control vector harborage and implement vector control as necessary;
- (v) Ensure that waste piles capable of attracting birds do not pose an aircraft safety hazard; and
- (vi) For piles of putrescible waste and contaminated soils or dredged material, control nuisance odors.

C. Additionally, Lafarge shall operate the facility in conformance with the following operating standards of WAC 173-350-320(4)(f) when storing or treating contaminated soils or dredged material:

- (i) Ensure that all soils and dredged material are sufficiently characterized:
 - (A) Prior to storage or treatment so that contaminants not identified, or at concentrations greater than those provided in the approved plan of operation are not accepted or handled at the facility; and
 - (B) Prior to removal to an off-site location so that all soils and dredged material that are not clean soils or dredged material are delivered to a facility that meets the requirements of chapter 70.95 RCW, Solid waste management — Reduction and recycling;

- (ii) In addition to the daily operating records required in Section 4(b) Monitoring Requirements of this permit, a record of the source of contaminated soils and dredged material received at the facility, contaminants and concentrations contained, and any documentation used to characterize soils and dredged material. Records shall be maintained of end uses, including the location of final placement, for any soils or dredged material removed from the facility that contains residual contaminants;

- (iii) In addition to the required elements listed in Section 5 Compliance Schedule of this permit, the plan of operation shall include:
 - (A) A description of contaminants and concentrations in soils and dredged material that will be handled at the facility;
 - (B) A sampling and analysis plan and other procedures used to characterize soils and dredged material; and
 - (C) Forms used to record the source of contaminated soils or dredged material, contaminant concentrations and other documentation used to characterize soils and dredged material, and end uses and the location of final placement for any soils or dredged material removed from the facility that contain residual contaminants;

- (iv) Treatment of contaminated soils and dredged materials shall be performed using a process that reduces or eliminates contaminants and harmful characteristics. Contaminated soils and dredged materials shall not be diluted to meet treatment goals or as a substitute for disposal, except for incidental dilution of minor contaminants.

Section 4 - Monitoring Requirements

Under the operating standards of WAC 173-350-320(4), Lafarge and all agents or contractors shall:

(a) Inspect and maintain the facility to prevent malfunctions, deterioration, operator errors and discharges that may cause or lead to the release of wastes to the environment or a threat to human health. Inspections shall include the engineered surface on which the piles are placed, and the leachate and stormwater control systems. Inspections shall be as needed, but at least weekly, to ensure it is meeting the operational standards, unless an alternate schedule is approved by SKCDPH as part of the permitting process;

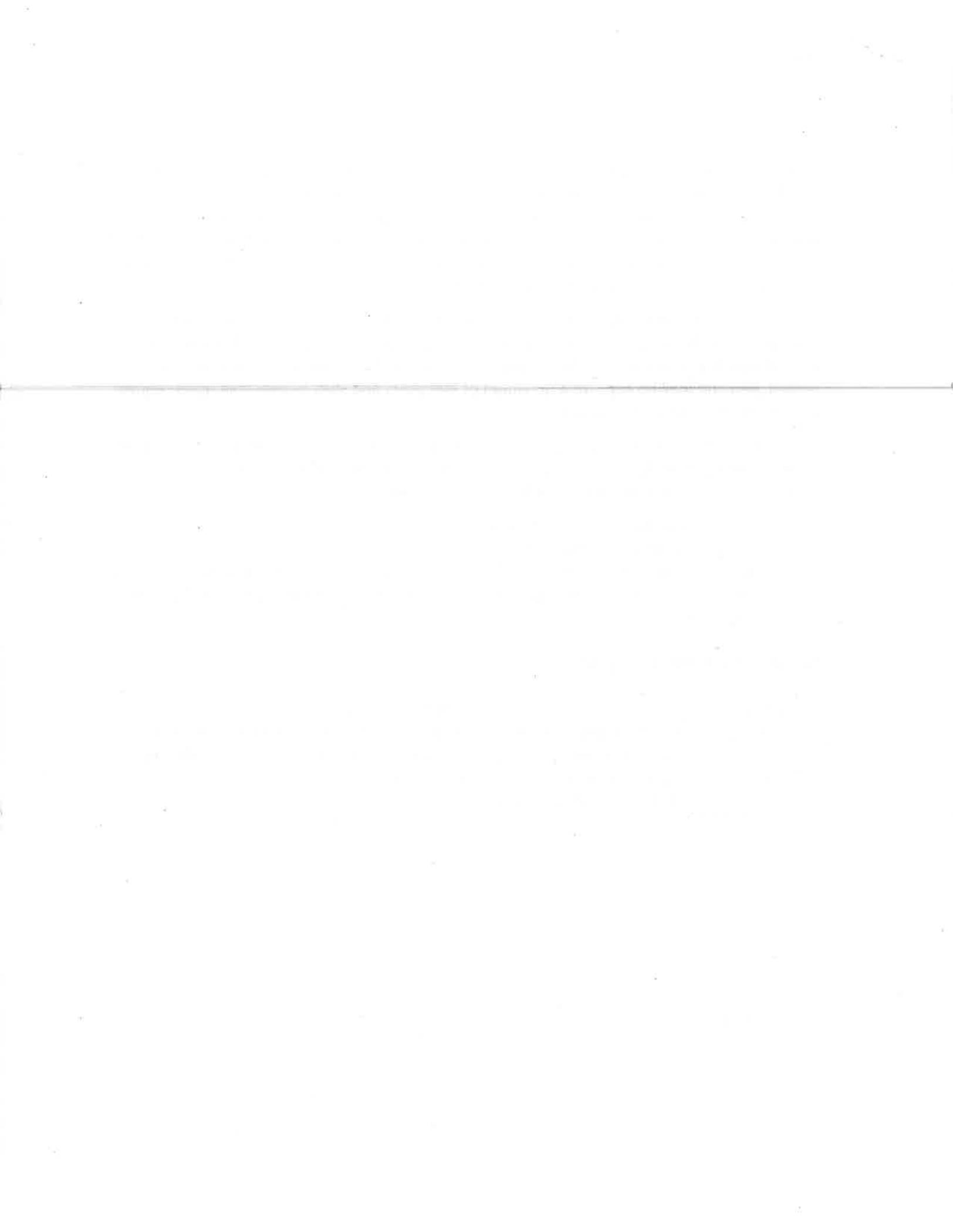
(b) Maintain daily operating records on the weights and the types of waste received or removed from the facility. Facility inspection reports shall be maintained in the operating record. Significant deviations from the plan of operation shall be noted in the operating record. Records shall be kept for a minimum of five years and shall be available upon request by the jurisdictional health department;

(c) Prepare and submit a copy of an annual report to the SKCDPH and Ecology by April 1st on forms supplied by Ecology. The annual report shall detail the facility's activities during the previous calendar year and shall include the following information:

- (i) Name and address of the facility;
- (ii) Calendar year covered by the report;
- (iii) Annual quantity and type of solid waste handled by the facility, including amounts received, amounts removed and the amount of waste remaining at the facility at year's end, in tons.

Section 5. Compliance Schedule

Due Date	Requirement
Weekly	Conduct weekly facility inspections and maintain inspection reports to be made available for Public Health review under WAC 173-350-320(4)(b).
April 1, 2016	Submit annual report detailing the facility's activities for 2015 under WAC 173-350-320(4)(d).



Page 1 of 38
Permit No. WA0002232
Issuance Date: December 30, 2010
Effective Date: January 1, 2011
Expiration Date: December 14, 2015
Modification Date: July 20, 2011
2nd Modification Date: August 24, 2011
3rd Modification Date: December 10, 2013

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WASTE DISCHARGE PERMIT No. WA0002232

State of Washington
DEPARTMENT OF ECOLOGY
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington
and
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1342 et seq.

LAFARGE NORTH AMERICA, INC.
5400 West Marginal Way SW
Seattle, WA 98106

is authorized to discharge in accordance with the Special and General Conditions that follow.

Facility Location:
5400 West Marginal Way SW
Seattle, WA 98106

Industry Type:
Cement Manufacturing

Waterbody I.D. No.:
1224819475188

Discharge Location:
Outfall 008
Latitude: 47° 33' 8" N
Longitude: 122° 20' 32" W

Receiving Water:
Duwamish River, Class B, Marine Water (Check the class)

Gerald Shewey for...

Kevin C. Fitzpatrick
Water Quality Section Manager
Northwest Regional Office
Washington State Department of Ecology

TABLE OF CONTENTS

SUMMARY OF PERMIT REPORT SUBMITTALS.....	4
SPECIAL CONDITIONS	
S1. DISCHARGE LIMITS	5
A. STORMWATER DISCHARGES.....	5
S2. MONITORING REQUIREMENTS	6
A. MONITORING SCHEDULE.....	6
B. SAMPLING AND ANALYTICAL PROCEDURES.....	7
C. FLOW MEASUREMENT, FIELD MEASUREMENT, AND CONTINUOUS MONITORING DEVICES.....	7
D. LABORATORY ACCREDITATION	8
E. REQUEST FOR REDUCTION IN MONITORING.....	8
S3. REPORTING AND RECORD KEEPING REQUIREMENTS	8
A. REPORTING	8
B. RECORDS RETENTION	9
C. RECORDING OF RESULTS.....	9
D. ADDITIONAL MONITORING BY THE PERMITTEE.....	9
E. REPORTING PERMIT VIOLATIONS.....	10
F. OTHER REPORTING	11
S4. OPERATION AND MAINTENANCE.....	12
A. OPERATIONS AND MAINTENANCE MANUAL	12
B. BYPASS PROCEDURES	13
C. DUTY TO MITIGATE	16
S5. APPLICATION FOR PERMIT RENEWAL	16
S6. SOLID WASTES.....	16
A. SOLID WASTE HANDLING	16
B. LEACHATE	16
C. SOLID WASTE CONTROL PLAN	16
S7. SPILL CONTROL PLAN.....	16
S8. STORMWATER POLLUTION PREVENTION PLAN.....	17
A. PLAN DEVELOPMENT	17
B. SOURCE CONTROL BMPs	18
C. SEDIMENT CONTROL INSPECTIONS	21
D. INSPECTION REPORT	21
E. GENERAL REQUIREMENTS	21
S9. ADDENDUM TO THE ENGINEERING REPORT.....	22

S10. MIXING STUDY22
A. GENERAL REQUIREMENTS22
B. REPORTING REQUIREMENTS23
C. PROTOCOLS.....23

S11. SEDIMENT MONITORING.....24
A. SEDIMENT SAMPLING AND ANALYSIS PLAN24
B. SEDIMENT DATA REPORT24

GENERAL CONDITIONS

G1. SIGNATORY REQUIREMENTS.....26
G2. RIGHT OF INSPECTION AND ENTRY27
G3. PERMIT ACTIONS.....27
G4. REPORTING PLANNED CHANGES29
G5. PLAN REVIEW REQUIRED29
G6. COMPLIANCE WITH OTHER LAWS AND STATUTES29
G7. TRANSFER OF THIS PERMIT29
G8. REDUCED PRODUCTION FOR COMPLIANCE30
G9. REMOVED SUBSTANCES30
G10. DUTY TO PROVIDE INFORMATION.....30
G11. OTHER REQUIREMENTS OF 40 CFR.....30
G12. ADDITIONAL MONITORING30
G13. PAYMENT OF FEES.....30
G14. PENALTIES FOR VIOLATING PERMIT CONDITIONS31
G15. UPSET31
G16. PROPERTY RIGHTS.....31
G17. DUTY TO COMPLY31
G18. TOXIC POLLUTANTS.....32
G19. PENALTIES FOR TAMPERING32
G20. REPORTING REQUIREMENTS APPLICABLE TO EXISTING MANUFACTURING,
COMMERCIAL, MINING, AND SILVICULTURAL DISCHARGERS32
G21. COMPLIANCE SCHEDULES33

Appendix A34

SUMMARY OF PERMIT REPORT SUBMITTALS

Refer to the Special and General Conditions of this permit for additional submittal requirements.

Permit Section	Submittal	Frequency	First Submittal Date
S3.A	Discharge Monitoring Report	Monthly	
S3.E	Reporting Permit Violations	As necessary	
S3.F	Other Reporting	As necessary	
S4.A	Operations and Maintenance Manual Update or Review Confirmation Letter	Annually	January 1, 2012
S4.B	Reporting Bypasses	As necessary	
S4.F	Reporting Other Information	As necessary	
S5	Application for Permit Renewal	1/permit cycle	December 14, 2014
S6.C	Modification to Solid Waste Plan	1/permit cycle	December 14, 2014
S7	Spill Plan	1/permit cycle, updates submitted as necessary	January 1, 2013
S8.A.1	Stormwater Pollution Prevention Plan	1/permit cycle	July 1, 2012
S8.A.2	Stormwater Pollution Prevention Plan	1/permit cycle	January 1, 2014
S9.	Addendum to Engineering Report	1/permit cycle	July 1, 2013
S10.A	Mixing Zone Plan of Study	1/permit cycle	January 1, 2012
S10.B	Effluent Mixing Report	1/permit cycle	July 1, 2013
S11.A	Sediment Baseline Sampling and Analysis Plan	1/permit cycle	January 1, 2012
S11.B	Sediment Data Report	1/permit cycle	24 months after Sediment Baseline Sampling and Analysis Plan approval by Ecology
G1.C	Notice of Change in Authorization	As necessary	
G4	Permit Application for Substantive Changes to the Discharge	As necessary	
G5	Engineering Report for Construction or Modification Activities	As necessary	
G7	Notice of Permit Transfer	As necessary	
G10	Duty to Provide Information	As necessary	

SPECIAL CONDITIONS

S1. DISCHARGE LIMITS

A. Stormwater Discharges

All discharges and activities authorized by this permit must be consistent with the terms and conditions of this permit.

The discharge of any of the following pollutants more frequently than, or at a level in excess of that identified and authorized by this permit violates the terms and conditions of this permit.

Stormwater discharges must not cause or contribute to a violation of surface water quality standards (Chapter 173-201A WAC) or sediment management standard (Chapter 173-204 WAC) of the state of Washington, and 40 CFR 131. The Permittee must clean vehicles of mud, rock, and other material before entering a paved public highway so that tracking of sediment onto the highway does not occur.

This permit prohibits discharge of process wastewater. Process wastewater includes truck wash wastewater and noncontact cooling water. This permit authorizes Lafarge North America, Inc. (Lafarge) to discharge treated stormwater consistent with the terms and conditions of this permit.

Beginning on the effective date of this permit and until determination of final effluent limits by the Washington State Department of Ecology (Ecology), but not later than the expiration date of this permit, the Permittee is authorized to discharge stormwater at the permitted location subject to complying with the following limits:

EFFLUENT LIMITS: OUTFALL # 001, 004, 008		
Parameter	Sampling Location	Maximum Daily^a
Turbidity – NTU	Final Effluent	25 NTU
Oil & Grease	Final Effluent	No visible sheen at any time
pH ^b	Final Effluent	Daily minimum is equal to or greater than 6.0 and the daily maximum is less than or equal to 9.0
^a Maximum daily effluent limit means the highest allowable daily discharge. The daily discharge means the discharge of a pollutant measured during a calendar day. For pollutants with limits expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For other units of measurement, the daily discharge is the average measurement of the pollutant over the day. This does not apply to pH.		
^b Indicates the range of permitted values. The Permittee must report the instantaneous maximum and minimum pH monthly.		

S2. MONITORING REQUIREMENTS

A. Monitoring Schedule

The Permittee shall monitor stormwater discharged to the receiving surface water in accordance with the following schedule. Monitoring must use the laboratory method, detection level (DL), and quantitation level (QL) specified in Appendix A*. The Permittee is required to monitor the receiving water only when discharging storm water.

Parameter	Units	Sampling Location	Minimum Sampling Frequency ^a	Sample Type
(1) Wastewater Effluent				
Flow	GPD	Final Effluent	Twice/month ^b	Continuous ^c
Total Suspended Solid (TSS) of final effluent	mg/L	Final Effluent	Twice/month	Grab
Turbidity, Final Effluent	NTU	Final Effluent	Twice/month	Grab
Oil & Grease	-----	Receiving Water	Daily when discharging	Visual Observation
Oil & Grease	mg/L	Final Effluent	Twice/month	Grab
pH	Standard units	Final Effluent	Twice/month	Grab
Contaminants of Concerns: Phthalate Compounds PCB Compounds PAH Compounds Antimony Arsenic Beryllium Cadmium Chromium (III) Chromium (VI) Mercury Nickel Selenium Silver Thallium	µg/L	Final Effluent	Twice/year ^d	Grab
Copper, as Total	µg/L	Final Effluent	Twice/month	Grab
Lead, as Total	µg/L	Final Effluent	Twice/month	Grab
Zinc, as Total	µg/L	Final Effluent	Twice/month	Grab
^a Grab samples must be collected during the first hour of stormwater discharge.				
^b Twice/month means two (2) times during each calendar month when discharging.				
^c Continuous means uninterrupted except for brief lengths of time for calibration, for power failure, or for unanticipated equipment repair or maintenance.				
^d These parameters are to be sampled twice per year. Once in summer or early fall, and once in winter. The results are to be submitted to Ecology with DMR with the remaining parameters tested routinely.				

- * **NOTE:** See Appendix A for the required detection (DL) or quantitation (QL) levels. Report single analytical values below detection as “less than (detection level)” where (detection level) is the numeric value specified in Attachment A. The Permittee may use alternative methods included in 40 CFR Part 136 if the DL and QL are equivalent to (or lower than) those specified in the table below or if the alternative methods DL and QL are low enough to detect the parameter.

Report single analytical values between the agency-required detection and quantitation levels with qualifier code of “j” following the value.

To calculate the average value (monthly average):

- Use the reported numeric value for all parameters measured between the agency-required detection value and the agency-required quantitation value.
- For values reported below detection, use one-half the detection value if the lab detected the parameter in another sample for the reporting period.

For values reported below detection, use zero if the lab did not detect the parameter in another sample for the reporting period. If the Permittee is unable to obtain the required DL and QL in its effluent due to matrix effects, the Permittee must submit a matrix specific MDL and a QL to Ecology with appropriate laboratory documentation.

B. Sampling and Analytical Procedures

Samples and measurements taken to meet the requirements of this permit must represent the volume and nature of the monitored parameters, including representative sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions affecting effluent quality.

Sampling and analytical methods used to meet the monitoring requirements specified in this permit must conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136 or approved by Ecology.

C. Flow Measurement, Field Measurement, and Continuous Monitoring Devices

The Permittee must:

1. Select and use appropriate flow measurement, field measurement, and continuous monitoring devices and methods consistent with accepted scientific practices.
2. Install, calibrate, and maintain these devices to ensure the accuracy of the measurements is consistent with the accepted industry standard and the manufacturer’s recommendation for that type of device.
3. Use field measurement devices as directed by the manufacturer and do not use reagents beyond their expiration dates. If the Permittee is unable to obtain field samples due to unsafe conditions, the field samples shall be collected as soon as possible after sampling the effluent.
4. Calibrate these devices at the frequency recommended by the manufacturer.
5. Calibrate flow monitoring devices at a minimum frequency of at least one calibration per year.
6. Maintain calibration records for at least three years.

D. Laboratory Accreditation

The Permittee must ensure that all monitoring data required by Ecology is prepared by a laboratory registered or accredited under the provisions of Chapter 173-50 WAC, *Accreditation of Environmental Laboratories*. Flow, temperature, settleable solids, conductivity, pH, turbidity, and internal process control parameters are exempt from this requirement.

E. Request for Reduction in Monitoring

The Permittee may request a reduction in monitoring requirements of this permit.

The Permittee must:

1. Provide a written request
2. Clearly state the parameters for which it is requesting the reduced monitoring.
3. Clearly state the justification for the reduction.

After Ecology review of such requests, Ecology may grant the request either through permit modification or when it reissues the permit.

S3. REPORTING AND RECORD KEEPING REQUIREMENTS

The Permittee must monitor and report in accordance with the following conditions. The falsification of information submitted to Ecology is a violation of the terms and conditions of this permit.

A. Reporting

The first monitoring period begins on the effective date of the permit. The Permittee must:

1. Submit monitoring results of each discharge event for each of the monitoring parameters quarterly.
2. Summarize, report, and submit monitoring data obtained during the previous three (3) months on the discharge monitoring report (DMR) forms provided, or otherwise approved, by Ecology.
3. Submit DMR forms quarterly whether or not the facility was discharging. If the facility did not discharge during a given monitoring quarter, submit the forms as required with the words "**NO DISCHARGE**" entered in place of the monitoring results.

4. Ensure that DMR forms are postmarked or received no later than the 15th day of the month following the completed monitoring period for each quarter respectively, i.e., **April 15, July 15, September 15, and January 15**, unless otherwise specified in this permit.
5. Send report(s) to Ecology at:

Water Quality Permit Coordinator
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

All laboratory reports providing data for organic and metal parameters must include the following information: sampling date, sample location, date of analysis, parameter name, CAS number, analytical method/ number, method detection limit (MDL), laboratory quantitation limit (QL), reporting units, and concentration detected. Analytical results from samples sent to a contract laboratory must have information on the chain of custody, the analytical method, QA/QC results, and documentation of accreditation for the parameter.

B. Records Retention

The Permittee must retain records of all monitoring information for a minimum of three (3) years. Such information must include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. The Permittee must extend this period of retention during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

C. Recording of Results

For each measurement or sample taken, the Permittee must record the following information:

1. The date, exact place, method, and time of sampling or measurement.
2. The individual who performed the sampling or measurement.
3. The dates the analyses were performed.
4. The individual who performed the analyses.
5. The analytical techniques or methods used.
6. The results of all analyses.

D. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant identified in Condition S2 of this permit more frequently than required by the Condition S2, then the Permittee must include the results of such monitoring in the calculation and reporting of the data submitted in the Permittee's DMR.

E. Reporting Permit Violations

The Permittee must take the following actions when it violates or is unable to comply with any permit condition:

- Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the noncompliance and correct the problem.
- If applicable, immediately repeat sampling and analysis. Submit the results of any repeat sampling to Ecology within thirty (30) days of sampling.

NOTE: An overflow or bypass from the stormwater system due to excessive stormwater that exceeds the design storm per approved engineering report will not be considered permit violation provided the overflow or bypass is solely due to severe storm and not a result of, or due to, lack of improper maintenance. However, Permittee must report such incidents to the NWRO using the same procedure as set forth in Section S3.E.

1. Immediate Reporting

The Permittee must report **immediately** to Ecology, at the numbers listed below, any collection system overflows or treatment system bypasses which may reach surface waters:

Northwest Regional Office 425-649-7000

2. Twenty-four-hour Reporting

The Permittee must report the following occurrences of overflows/or noncompliance by telephone to Ecology at the telephone numbers listed above, within 24 hours from the time the Permittee becomes aware of any of the following circumstances:

- a. Any noncompliance that may endanger health or the environment, unless previously reported under subpart 1, above.
- b. Any unanticipated **bypass** that exceeds any effluent limitation in the permit (See Part S4.B, "Bypass Procedures").
- c. Any **upset** that exceeds any effluent limitation in the permit (See G.15, "Upset").
- d. Any violation of a maximum daily or instantaneous maximum discharge limitation for any of the pollutants in Section S1.A of this permit.
- e. Any overflow prior to stormwater treatment works or management system that is not otherwise authorized under this permit, whether or not such overflow endangers health or the environment or exceeds any effluent limitation in the permit.

3. Report Within Five Days

The Permittee must also provide a written submission within five days of the time that the Permittee becomes aware of any event required to be reported under subparts 1 or 2, above. The written submission must contain:

- a. A description of the noncompliance and its cause.
- b. The period of noncompliance, including exact dates and times.
- c. The estimated time noncompliance is expected to continue if it has not been corrected.
- d. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
- e. If the noncompliance involves an overflow prior to the treatment works, or due to excessive stormwater that exceeds the design storm, an estimate of the quantity (in gallons) of untreated overflow.

4. Waiver of Written Reports

Ecology may waive the written report required in subpart 3, above, on a case-by-case basis upon request if a timely oral report has been received.

5. All Other Permit Violation Reporting

The Permittee must report all permit violations, which do not require immediate or within-24-hours reporting, when it submits monitoring reports for S3.A ("Reporting"). The reports must contain the information listed in paragraph E.3, above. Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

6. Report Submittal

The Permittee must submit reports to the address listed in S3.

F. Other Reporting

The Permittee must report a spill of oil or hazardous materials in accordance with the requirements of RCW 90.56.280 and Chapter 173-303-145. You can obtain further instructions at the following website:

<http://www.ecy.wa.gov/programs/spills/other/reportaspill.htm> .

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to Ecology, it must submit such facts or information promptly.

The Permittee must submit a new application or supplement at least one hundred eighty (180) days prior to commencement of discharges, resulting from the activities listed below, which may result in permit violations. These activities include any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility.

The Permittee must keep a copy of this permit at the facility and make it available upon request to Ecology inspectors.

S4. OPERATION AND MAINTENANCE

The Permittee must, at all times, properly operate and maintain all facilities or systems of treatment and control (and related appurtenances) which are installed to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems, which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

The Permittee must schedule any facility maintenance, which might require interruption of stormwater treatment and degrade effluent quality, during non-critical water quality periods and carry this maintenance out in a manner approved by Ecology.

A. Operations and Maintenance Manual

1. The Permittee must:
 - a. Update the Operations and Maintenance (O&M) Manual in accordance with 173-240-150 WAC and submit it to Ecology for approval by January 1, 2012.
 - b. Review the O&M Manual at least annually and confirm this review by letter to Ecology.
 - c. Submit to Ecology for review and approval substantial changes or updates to the O&M Manual whenever it incorporates them into the manual.
 - d. Keep the approved O&M Manual at the permitted facility.
 - e. Follow the instructions and procedures of this manual.
2. In addition to the requirements of WAC 173-240-150(1) and (2), the O&M Manual must include:
 - a. Emergency procedures for plant shutdown and cleanup in event of stormwater system upset or failure.

- b. Stormwater system maintenance procedures that contribute to the generation of process wastewater.
 - c. Any directions to maintenance staff when cleaning, or maintaining other equipment or performing other tasks which are necessary to protect the operation of the stormwater system (for example, defining maximum allowable discharge rate for draining a tank, blocking all floor drains before beginning the overhaul of a stationary engine.)
 - d. Stormwater sampling protocols and procedures for compliance with the sampling and reporting requirements in the wastewater discharge permit.
 - e. Minimum staffing adequate to operate and maintain the treatment processes and carry out compliance monitoring required by the permit
 - f. Treatment plant process control monitoring schedule.
3. The Permittee must summarize the following information in the initial chapter of the O&M Manual entitled the "Treatment System Operating Plan." For the purposes of this NPDES permit, a Treatment System Operating Plan (TSOP) is a concise summary of specifically defined elements of the O&M Manual. The TSOP must not conflict with the O&M Manual and must include the following information:
- a. A baseline operating condition of the treatment system, which describes the operating parameters and procedures, used to meet the effluent limits of S1 at the production levels used in developing these limits.
 - b. In the event of an upset due to plant maintenance activities, severe stormwater events, start-ups or shutdowns, or other causes, the plan must describe the operating procedures and conditions employed to mitigate the upset. The monitoring and reporting must be described in the plan.
 - c. A description of any regularly scheduled maintenance or repair activities at the facility which would affect the volume or character of the wastes discharged to the stormwater treatment system and a plan for monitoring and treating/controlling the discharge of maintenance-related materials (such as cleaners, degreasers, solvents, etc.).

The Permittee must submit an updated Treatment System Operating Plan to Ecology with the application for renewal. This plan must be updated and submitted, as necessary, to include requirements for any major modifications of the treatment system.

B. Bypass Procedures

This permit prohibits a bypass which is the intentional diversion of stormwater away from any portion of a treatment facility. Stormwater treatment systems and facilities must be fully functional for all storms meeting water quality design storm and the water

quality design flow rate per approved latest engineering report. A stormwater treatment system failure due to excessive stormwater that exceeds the design storm per approved engineering report will not be considered a permit violation provided the overflow or bypass is solely due to sever storm and not the result of, or due to lack of, improper maintenance.

Ecology may take enforcement action against a Permittee for a bypass unless one of the following circumstances (1, 2, or 3) applies.

1. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

Bypass is authorized if it is for essential maintenance and does not have the potential to cause violations of limits or other conditions of this permit, or adversely impact public health as determined by Ecology prior to the bypass. The Permittee must submit prior notice, if possible, at least ten (10) days before the date of the bypass.

2. Bypass which is unavoidable, unanticipated, and results in noncompliance of this permit.

This bypass is permitted only if:

Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.

No feasible alternatives to the bypass exist, such as:

- The use of auxiliary treatment facilities.
- Retention of untreated stormwater.
- Maintenance during normal periods of equipment downtime, but not if the Permittee should have installed adequate backup equipment in the exercise of reasonable engineering judgment to prevent a bypass.
- Transport of untreated stormwater to another treatment facility or preventative maintenance), or transport of untreated stormwater to another treatment facility.

Ecology is properly notified of the bypass as required in Condition S3.E of this permit.

3. If bypass is anticipated and has the potential to result in noncompliance of this permit.
 - a. The Permittee must notify Ecology at least thirty (30) days before the planned date of bypass. The notice must contain:

- A description of the bypass and its cause.
 - An analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing.
 - A cost-effectiveness analysis of alternatives including comparative resource damage assessment.
 - The minimum and maximum duration of bypass under each alternative.
 - A recommendation as to the preferred alternative for conducting the bypass.
 - The projected date of bypass initiation.
 - A statement of compliance with SEPA.
 - A request for modification of water quality standards as provided for in WAC 173-201A-410, if an exceedance of any water quality standard is anticipated.
 - Details of the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.
- b. For probable construction bypasses, the Permittee must notify Ecology of the need to bypass as early in the planning process as possible. The Permittee must consider the analysis required above during preparation of the engineering report or facilities plan and plans and specifications and must include these to the extent practical. In cases where the Permittee determines the probable need to bypass early, the Permittee must continue to analyze conditions up to and including the construction period in an effort to minimize or eliminate the bypass.
- c. Ecology will consider the following prior to issuing an administrative order for this type of bypass:
- If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.
 - If feasible alternatives to bypass exist, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.
 - If the Permittee planned and scheduled the bypass to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, Ecology will approve or deny the request. Ecology will give the public an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Ecology will approve a request to bypass by issuing an administrative order under RCW 90.48.120.

C. Duty to Mitigate

The Permittee is required to take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

S5. APPLICATION FOR PERMIT RENEWAL

The Permittee must submit an application for renewal of this permit by December 14, 2014.

S6. SOLID WASTES

A. Solid Waste Handling

The Permittee must handle and dispose of all solid waste material in such a manner as to prevent its entry into state ground or surface water.

B. Leachate

The Permittee must not allow leachate from its solid waste material to enter state waters without providing all known, available, and reasonable methods of treatment, nor allow such leachate to cause violations of the state surface water quality standards, Chapter 173-201A WAC, or the state ground water quality standards, Chapter 173-200 WAC. The Permittee must apply for a permit or permit modification as may be required for such discharges to state ground or surface waters.

C. Solid Waste Control Plan

The Permittee must submit all proposed revisions or modifications to the Solid Waste Control Plan to Ecology for review and approval at least thirty (30) days prior to implementation. Once approved, the Permittee must comply with any plan modifications. The Permittee must submit an update of the Solid Waste Control Plan by December 14, 2014.

S7. SPILL CONTROL PLAN

The Permittee must:

1. Submit to Ecology an update to the existing Spill Control Plan by January 1, 2013.
2. Review the plan at least annually and update the Spill Control Plan as needed.
3. Send changes to the plan to Ecology.
4. Follow the plan and any supplements throughout the term of the permit.

The Spill Control Plan must include the following:

1. A list of all oil and petroleum products and other materials used and/or stored on-site, which when spilled, or otherwise released into the environment, designate as dangerous waste (DW) or extremely hazardous waste (EHW) by the procedures set forth in WAC 173-303-070. Include other materials used and/or stored on-site which may become pollutants or cause pollution upon reaching state's waters.
2. A description of preventive measures and facilities (including an overall facility plot showing drainage patterns) which prevent, contain, or treat spills of these materials.
3. A description of the reporting system the Permittee will use to alert responsible managers and legal authorities in the event of a spill.
4. A description of operator training to implement the plan.

The Permittee may submit plans and manuals required by 40 CFR Part 112 (SPCC), contingency plans required by Chapter 173-303 WAC, or other plans required by other agencies which meet the intent of this section.

S8. STORMWATER POLLUTION PREVENTION PLAN

Include a Stormwater Pollution Prevention Plan (SWPPP) that identifies applicable best management practices consistent with the *Stormwater Management Manual for Western Washington* (2005 edition).

A. Plan Development

The Permittee must implement and comply with the SWPPP in accordance with the following schedule:

1. By July 1, 2012, update the SWPPP and incorporate all changes resulted from the issuance of the new permit into the SWPPP and retain a copy of it on-site.
2. By January 1, 2014, complete:
 - a. Implementation of operational and all other applicable source control BMPs, as required, which do not require capital improvements.
 - b. Installation of the treatment system as approved by Ecology on August 17, 2010, and all follow-up addendum(s) per Section S9 of this permit and implementation of all identified BMPs requiring capital improvements.
3. The Permittee must implement all the elements of the SWPPP, including operational, treatment, and source control BMPs, as well as sediment control BMPs determined necessary.

4. The Permittee must prepare the SWPPP consistent with the *Stormwater Management Manual for Western Washington* (2005 edition) available at <http://www.ecy.wa.gov/programs/wq/stormwater/manual.html> and the *Stormwater Pollution Prevention Planning for Industrial Facilities* Publication No. WQ-R-93-015, updated April 2004, published by Ecology and available at: <http://www.ecy.wa.gov/biblio/0410030.html>

The plan must contain the following elements:

- a. Assessment and description of existing and potential pollutant sources.
 - b. The SWPPP must include a description of the operational, source-control, sediment control, and if necessary, treatment BMPs. In addition, the SWPPP must contain an implementation schedule.
5. The Permittee must implement best management practices identified in the approved engineering report. These must address, at a minimum:
 - a. Training for truck drivers on truck-cleaning practices so materials are not tracked throughout the facility and off-site.
 - b. Maintenance of the truck wash facility with sump and recycling to clean trucks before they leave the facility and to contain truck wash water on-site. The Permittee must **not** dispose of truck wash wastewater, which is process wastewater, via the storm sewer but rather must dispose of it via the sanitary sewer system.
 - c. Use of dust abatement methods to control fugitive dust emission and additional BMPs, such as high efficiency sweeping and capture, reuse of dust abatement water/stormwater in cement production, or otherwise disposal via sanitary sewer.
 - d. Scheduling a stormwater system preventive maintenance program during the year and especially with a high priority before the heavy rain season.
 - e. Holding the annual refresher training for the yard crew and operations at the time the preventive maintenance inspections are conducted.
 - f. Mechanically cleaning the storm drains catch basins to maintain the drains in the system.

B. Source Control BMPs

The SWPPP must include source control BMPs as necessary to achieve AKART and compliance with the stormwater discharge limits in S1.

1. Source control BMPs include, but are not limited to BMPs for:
 - a. Fueling at dedicated stations.

- b. Loading and unloading areas.
- c. Washing or steam cleaning vehicles/equipment.
- d. Dust control.
- e. Stabilized entrances and parking areas.
- f. Storage or transfer of solid raw materials, byproducts, or finished products.
- g. Vehicle and equipment maintenance must not occur outside without appropriate BMPs.
- h. Coal stockpile and storage areas along the Duwamish River Bank must be void of gaps to prevent direct flow of stormwater discharges from this area to the Duwamish River. Covering of all inactive portions of all petroleum-contaminated dirt piles to prevent or reduce contamination of stormwater. Covering of all other stockpiles of materials stored outside, where feasible and safe to do so. Employing good housekeeping to prevent or minimize the discharge of spilled cement, kiln dust, fly ash, settled dust, or other significant materials in stormwater from paved portions of the site that are exposed to stormwater. Vacuuming of the site at least once a week to minimize the presence of spilled cement, kiln dust, fly ash, and settled dust. Discharge of all process wastewater generated at the facility to the sanitary sewer in accordance with the local sewer authority or otherwise reuse or disposal properly.

In addition, the SWPPP must include provisions to prevent discharge of stormwater contacting stockpiles of petroleum-contaminated dirt. The facility must not discharge water that has contacted these piles to surface or ground water. Lafarge must accomplish this by either:

- a. Providing complete containment for stormwater contacting the stockpiles and preventing discharge of such water to the sewer system, or
 - b. Covering stockpiles that have not been disturbed (for example, received new material or had materials removed) for more than seven (7) days.
2. Runoff Conveyance BMPs

The SWPPP must include runoff conveyance and treatment BMPs as necessary to achieve AKART and compliance with the stormwater discharge limits.

Runoff conveyance BMPs include, but are not limited to:

- a. Daily sweeping or sweeping as often as necessary to keep paved areas clean.
- b. Sediment traps, berms, or other means to minimize fine material deposition to catch basins.

3. Innovative BMPs

Innovative treatment, source control, reduction or recycling, or operational BMPs beyond those identified in Ecology's SWMMs are encouraged if they help achieve compliance with this NPDES permit.

The SWPPP must include a description of runoff, conveyance, and treatment BMPs used to prevent sedimentation. The Permittee must:

- a. Protect properties adjacent to the project site from sedimentation related to the facility.
- b. Construct as needed and maintain sediment traps, sediment barriers, and other BMPs intended to trap sediment on-site.

4. Stormwater Inspections

The Permittee must conduct stormwater inspections each week.

a. Stormwater Quality Inspections

The inspections once a week during the wet season (October 1 – April 30) must be conducted by personnel named in the SWPPP and must include observations for the presence of floating materials, suspended solids, oil and grease, discoloration, turbidity, odor, etc., in conveyance systems, including weirs and outfalls. Whenever feasible, the Permittee must conduct the inspection during a rainfall event adequate in intensity and duration to verify that:

- i. The description of potential pollutant sources required under this permit is accurate.
- ii. The controls to reduce pollutants in stormwater discharges associated with industrial activity identified in the SWPPP are being implemented and are adequate.

5. Management of Raw Materials

The Permittee must manage raw materials to prevent stormwater contamination consistent with the *Stormwater Management Manual for Western Washington* (2005 edition).

The Permittee must:

- a. Consistent with the requirements of Condition S8.B.1, contain and cover pollution causing materials and chemicals such as oils, solvent, degreasers and any other, and raw materials piles such as coal, iron ore and limestone and other materials.

- b. Contain petroleum-contaminated soils (PCS) that fail to meet the most protective MTCA Method 'A' treatment levels [WAC 173-340-740(2)] so as to prevent leaching of pollutants to surface water.
- c. Cover, contain, and store cement shall in silos.
- d. Cover and contain admixtures.
- e. Cover and contain fuels, lubricants, and other petroleum products.
- f. Contain contaminated slag materials from blasting at shipyards so as to prevent leaching of pollutants to surface water.

C. Sediment Control Inspections

The Permittee must:

- 1. Inspect all on-site sediment control facilities (including catch basins) and BMPs once a week during the wet season (October 1 – April 30).
- 2. Maintain a file containing a log of observations as part of the SWPPP.

D. Inspection Report

A report on each inspection must be prepared and retained as part of the SWPPP.

The report must summarize the:

- 1. Scope of the inspection.
- 2. Personnel conducting the inspection.
- 3. Date(s) of the inspection.
- 4. Major observations relating to the implementation of the SWPPP.
- 5. Any actions taken as a result of the inspection.

The report must be signed in accordance with Condition G1.

E. General Requirements

- 1. Submission, Retention, and Availability

The Permittee must submit a copy of modified SWPPP to Ecology within 18 months after effective date of this permit. The SWPPP and all of its modifications must be signed in accordance with General Condition G1. Retain the SWPPP on-site or within reasonable access to the site.

2. Modifications

The Permittee must modify the SWPPP to address handling of any contaminated soils, dredge spoils, and sediments generated at superfund or toxic cleanup sites. The Permittee must not discharge leachate from these materials through its stormwater treatment system to surface water. The SWPPP must be modified to address this requirement prior to accepting or allowing these materials on site.

Whenever the description of potential pollutant sources or the pollution prevention measures and controls identified in the SWPPP are inadequate, the Permittee must modify the SWPPP within two (2) weeks of such determination. The Permittee must provide for implementation of any modifications to the SWPPP in a timely manner. Modifications to the SWPPP must be consistent with Ecology's *Stormwater Management Manual for Western Washington*.

3. The Permittee may incorporate applicable portions of plans prepared for other purposes. Plans or portions of plans incorporated into a SWPPP become enforceable requirements of this permit.

S9. ADDENDUM TO THE ENGINEERING REPORT

No later than 30 months from the issuance date of this permit, Lafarge shall submit to Ecology for review and approval an addendum to the approved engineering report called "Lafarge North America, Inc. Stormwater Treatment System Engineering Report," submitted to Ecology in June 2010 and approved in August 2010. The addendum shall evaluate the optimum turbidity that is achievable by the electrocoagulation treatment system engineering report as approved by the Department of Ecology in 2010. Ecology will use the information provided in this amendment to make further AKART determination of the optimum turbidity level achievable by the electrocoagulation system on this particular site.

S10. MIXING STUDY

A. General Requirements

1. The Permittee, at its option, may apply for a mixing zone. To receive a mixing zone, the Permittee must determine the degree of effluent and receiving water mixing which occurs within the mixing zone. The degree of mixing must be determined during critical conditions, as defined in WAC 173-201A-020 Definitions - "Critical Condition," or as close to critical conditions as reasonably possible.
2. The Permittee must use the *Guidance for Conducting Mixing Zone Analyses* (Ecology, 1996) to establish the critical condition scenarios. The Permittee must measure the dilution ratio in the field with dye using study protocols specified in the *Guidance*, Section 5.0 "Conducting a Dye Study," as well as other protocols listed in Subpart C "Protocols." The Permittee may use mixing models as an acceptable alternative or adjunct to a dye study if:

- a. The critical ambient conditions necessary for model input are known or will be established with field studies.
 - b. If the diffuser is visually inspected for integrity or has been recently tested for performance by the use of tracers.
3. The Permittee must consult the *Guidance* mentioned above when choosing the appropriate model.
 4. Ecology requires the use of models if critical condition scenarios that need to be examined are quite different from the set of conditions present during the dye study.
 5. The Permittee may need to validate (and possibly calibrate) a model. The Permittee must conduct validation/calibration in accordance with the *Guidance* mentioned above, in particular, Subsection 5.2 "Quantify Dilution." The Permittee must apply the resultant dilution ratios for acute and chronic boundaries in accordance with directions found in Ecology's *Permit Writer's Manual*.

The Permittee must submit a Plan of Study to Ecology for review and approval prior to initiation of the effluent mixing study.

B. Reporting Requirements

1. The Permittee must include the results of the effluent mixing study in the Effluent Mixing Report, and must submit it to Ecology for review and approval.
2. If the Permittee has information on the background physical conditions or background concentration of chemical substances (for which there are criteria in Chapter 173-201A WAC) in the receiving water, the Permittee must submit this information to Ecology as part of the Effluent Mixing Report.
3. If the results of the mixing study, toxicity tests, and chemical analysis of effluent and the sediment indicate that the concentration of any pollutant(s) exceeds or has a reasonable potential to exceed the state water quality standards, Chapter 173-201A WAC, or state sediment quality standards 173-204 WAC, Ecology may issue an administrative order to require a reduction of pollutants or modify this permit to impose effluent limits to meet the water quality standards.

The Permittee must locate the outfall and mixing zone boundaries with GPS coordinates. The accuracy of station locations must be identified in the report.

C. Protocols

The Permittee must determine the dilution ratio using protocols outlined in the following references, approved modifications thereof, or by another method approved by Ecology:

- Akar, P.J. and G.H. Jirka, *Cormix2: An Expert System for Hydrodynamic Mixing Zone Analysis of Conventional and Toxic Multiport Diffuser Discharges*, USEPA Environmental Research Laboratory, Athens, GA, Draft, July 1990.
- Baumgartner, D.J., W.E. Frick, P.J.W. Roberts, and C.A. Bodeen, *Dilution Models for Effluent Discharges*, USEPA, Pacific Ecosystems Branch, Newport, OR, 1993.
- Doneker, R.L. and G.H. Jirka, *Cormix1: An Expert System for Hydrodynamic Mixing Zone Analysis of Conventional and Toxic Submerged Single Port Discharges*, USEPA, Environmental Research Laboratory, Athens, GA. EPA/600-3-90/012, 1990.
- Ecology, *Permit Writer's Manual*, Water Quality Program, Department of Ecology, Olympia, WA 98504, July 1994, including most current addenda.
- Ecology, *Guidance for Conducting Mixing Zone Analyses, Permit Writer's Manual*, (Appendix 6.1), Water Quality Program, Department of Ecology, Olympia, WA 98504, October 2002.
- Kilpatrick, F.A., and E.D. Cobb, *Measurement of Discharge Using Tracers*, Chapter A16, *Techniques of Water-Resources Investigations of the USGS, Book 3, Application of Hydraulics*, USGS, U.S. Department of the Interior, Reston, VA, 1985.
- Wilson, J.F., E.D. Cobb, and F.A. Kilpatrick, *Fluorometric Procedures for Dye Tracing*, Chapter A12, *Techniques of Water-Resources Investigations of the USGS, Book 3, Application of Hydraulics*, USGS, U.S. Department of the Interior. Reston, VA, 1986.

S11. SEDIMENT MONITORING

A. Sediment Sampling and Analysis Plan

Since the monitoring in the lower Duwamish Waterway at this site is sufficient, no further sediment monitoring requirements are needed in this permit. However, if Permittee decides to dredge the site, it must submit to Ecology for review and approval at least 180 days prior to start of such dredging procedure a Sediment Sampling and Analysis Plan for surface sediment sample after dredging. The purpose of the plan is to characterize the sediment (the nature and extent of chemical contamination and biological toxicity) in the vicinity of the Permittee's discharge locations or dock activities at a depth of about 10 cm, i.e., where coke/coal and other materials are unloaded. The sediment monitoring plan shall include the SMS suite of 47 chemicals plus conventional analyte, such as TOC, grain size, ammonia, and sulfide.

Lafarge must also plan to collect concurrently storm drain solids for contaminants of concern including but not limited to arsenic, mercury, PAH, PCB, and phthalates. The sites that must be tested shall be the sumps for outfall 1, 4, and 8, and dock area trench drain or catch basin. The purpose of storm drain sampling is to rule out Lafarge as a contributor to the sediment contamination in the waterway.

The Permittee must follow the guidance provided in the *Sediment Source Control Standards User Manual, Appendix B: Sediment Sampling and Analysis Plan* (Ecology, 2008).

B. Sediment Data Report

Following Ecology approval of the Sediment Sampling and Analysis Plan, the Permittee must collect sediments between August 15th and September 15th. The Permittee must submit to Ecology a Sediment Data Report containing the results of the sediment sampling and analysis no later than 24 months after Ecology approval of Sediment Sampling and Analysis Plan. The Sediment Data Report must conform to the approved Sediment Sampling and Analysis Plan.

The Sediment Data Report must also include electronic copies of the sediment chemical and biological data formatted according to Ecology's Environmental Information (EIM) System templates available at the link below:

http://www.ecy.wa.gov/programs/tcp/smu/eim/myEIM_hp.htm

GENERAL CONDITIONS

G1. SIGNATORY REQUIREMENTS

- A. All applications, reports, or information submitted to Ecology must be signed and certified.
- (a) In the case of corporations, by a responsible corporate officer.
For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- (b) In the case of a partnership, by a general partner.
- (c) In the case of sole proprietorship, by the proprietor.
- (d) In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.
- Applications for permits for domestic wastewater facilities that are either owned or operated by, or under contract to, a public entity shall be submitted by the public entity.
- B. All reports required by this permit and other information requested by Ecology must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
1. The authorization is made in writing by a person described above and submitted to Ecology.
 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)
- C. Changes to authorization. If an authorization under paragraph B.2, above, is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph B.2, above, must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.

- D. Certification. Any person signing a document under this section must make the following certification:

"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

G2. RIGHT OF INSPECTION AND ENTRY

The Permittee must allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

- A. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit.
- B. To have access to and copy - at reasonable times and at reasonable cost - any records required to be kept under the terms and conditions of this permit.
- C. To inspect - at reasonable times - any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
- D. To sample or monitor - at reasonable times - any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G3. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee) or upon Ecology's initiative. However, the permit may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR 122.62, 122.64 or WAC 173-220-150 according to the procedures of 40 CFR 124.5.

- A. The following are causes for terminating this permit during its term, or for denying a permit renewal application:
 - 1. Violation of any permit term or condition.
 - 2. Obtaining a permit by misrepresentation or failure to disclose all relevant facts.
 - 3. A material change in quantity or type of waste disposal.

4. A determination that the permitted activity endangers human health or the environment or contributes to water quality standards violations and can only be regulated to acceptable levels by permit modification or termination [40 CFR Part 122.64(3)].
 5. A change in any condition that requires either a temporary or permanent reduction or elimination of any discharge or sludge use or disposal practice controlled by the permit [40 CFR Part 122.64(4)].
 6. Nonpayment of fees assessed pursuant to RCW 90.48.465.
 7. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.
- B. The following are causes for modification but not revocation and reissuance except when the permittee requests or agrees:
1. A material change in the condition of the waters of the state.
 2. New information not available at the time of permit issuance that would have justified the application of different permit conditions.
 3. Material and substantial alterations or additions to the permitted facility or activities which occurred after this permit issuance.
 4. Promulgation of new or amended standards or regulations having a direct bearing upon permit conditions, or requiring permit revision.
 5. The Permittee has requested a modification based on other rationale meeting the criteria of 40 CFR Part 122.62.
 6. Ecology has determined that good cause exists for modification of a compliance schedule, and the modification will not violate statutory deadlines.
 7. Incorporation of an approved local pretreatment program into a municipality's permit.
- C. The following are causes for modification or alternatively revocation and reissuance:
1. Cause exists for termination for reasons listed in A1 through A7, of this section, and Ecology determines that modification or revocation and reissuance is appropriate.
 2. Ecology has received notification of a proposed transfer of the permit. A permit may also be modified to reflect a transfer after the effective date of an automatic transfer (General Condition G8) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new Permittee.

G4. REPORTING PLANNED CHANGES

The Permittee must, as soon as possible, but no later than sixty (60) days prior to the proposed changes, give notice to Ecology of planned physical alterations or additions to the permitted facility, production increases, or process modification which will result in:

1) the permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b);
2) a significant change in the nature or an increase in quantity of pollutants discharged; or
3) a significant change in the Permittee's sludge use or disposal practices. Following such notice, and the submittal of a new application or supplement to the existing application, along with required engineering plans and reports, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G5. PLAN REVIEW REQUIRED

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications must be submitted to Ecology for approval in accordance with Chapter 173-240 WAC. Engineering reports, plans, and specifications must be submitted at least one hundred eighty (180) days prior to the planned start of construction unless a shorter time is approved by Ecology. Facilities must be constructed and operated in accordance with the approved plans.

G6. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in this permit must be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G7. TRANSFER OF THIS PERMIT

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the Permittee must notify the succeeding owner or controller of the existence of this permit by letter, a copy of which must be forwarded to Ecology.

A. Transfers by Modification

Except as provided in paragraph B below, this permit may be transferred by the Permittee to a new owner or operator only if this permit has been modified or revoked and reissued under 40 CFR 122.62(b)(2), or a minor modification made under 40 CFR 122.63(d), to identify the new Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

B. Automatic Transfers

This permit may be automatically transferred to a new Permittee if:

1. The Permittee notifies Ecology at least thirty (30) days in advance of the proposed transfer date.

2. The notice includes a written agreement between the existing and new Permittee's containing a specific date transfer of permit responsibility, coverage, and liability between them.
3. Ecology does not notify the existing Permittee and the proposed new Permittee of its intent to modify or revoke and reissue this permit. A modification under the subparagraph may also be minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement.

G8. REDUCED PRODUCTION FOR COMPLIANCE

The Permittee, in order to maintain compliance with its permit, must control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

G9. REMOVED SUBSTANCES

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must not be resuspended or reintroduced to the final effluent stream for discharge to state waters.

G10. DUTY TO PROVIDE INFORMATION

The Permittee must submit to Ecology, within a reasonable time, all information which Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology upon request, copies of records required to be kept by this permit.

G11. OTHER REQUIREMENTS OF 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G12. ADDITIONAL MONITORING

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G13. PAYMENT OF FEES

The Permittee must submit payment of fees associated with this permit as assessed by Ecology.

G14. PENALTIES FOR VIOLATING PERMIT CONDITIONS

Any person who is found guilty of willfully violating the terms and conditions of this permit is deemed guilty of a crime, and upon conviction thereof will be punished by a fine of up to ten thousand dollars (\$10,000) and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs is a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit must incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars (\$10,000) for every such violation. Each and every such violation is a separate and distinct offense, and in case of a continuing violation, every day's continuance is deemed to be a separate and distinct violation.

G15. UPSET

Definition – “Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limits if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that:

- 1) an upset occurred and that the Permittee can identify the cause(s) of the upset;
- 2) the permitted facility was being properly operated at the time of the upset;
- 3) the Permittee submitted notice of the upset as required in Condition S3.E; and
- 4) the Permittee complied with any remedial measures required under S4.C of this permit.

In any enforcement proceedings the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G16. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

G17. DUTY TO COMPLY

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G18. TOXIC POLLUTANTS

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G19. PENALTIES FOR TAMPERING

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit will, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two (2) years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment will be a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four (4) years, or by both.

G20. REPORTING REQUIREMENTS APPLICABLE TO EXISTING MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURAL DISCHARGERS

The Permittee belonging to the categories of existing manufacturing, commercial, mining, or silviculture must notify Ecology as soon as they know or have reason to believe:

- A. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following "notification levels":
 1. One hundred micrograms per liter (100 µg/L).
 2. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony.
 3. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
 4. The level established by the Director in accordance with 40 CFR 122.44(f).
- B. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following "notification levels":
 1. Five hundred micrograms per liter (500 µg/L).
 2. One milligram per liter (1 mg/L) for antimony.
 3. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
 4. The level established by the Director in accordance with 40 CFR 122.44(f).

G21. COMPLIANCE SCHEDULES

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than fourteen (14) days following each schedule date.

APPENDIX A

EFFLUENT CHARACTERIZATION FOR POLLUTANTS

THIS LIST INCLUDES EPA-REQUIRED POLLUTANTS (PRIORITY POLLUTANTS)
 AND SOME ECOLOGY PRIORITY TOXIC CHEMICALS (PBTs)

The following table specifies analytical methods and levels to be used for effluent characterization in NPDES and state waste discharge permits. This appendix specifies effluent characterization requirements of the Department of Ecology unless other methods are specified in the body of this permit.

This permit specifies the compounds and groups of compounds to be analyzed. Ecology may require additional pollutants to be analyzed within a group. The objective of this appendix is to reduce the number of analytical “non-detects” in permit-required monitoring and to measure effluent concentrations near or below criteria values where possible at a reasonable cost. If a Permittee knows that an alternate, less sensitive method (higher DL and QL) from 40 CFR Part 136 is sufficient to produce measurable results in their effluent, that method may be used for analysis.

Pollutant & CAS No. <i>(if available)</i>	Recommended Analytical Protocol	Detection (DL) ¹ <i>µg/L unless specified</i>	Quantitation Level (QL) ² <i>µg/L unless specified</i>
CONVENTIONALS			
Biochemical Oxygen Demand	SM5210-B		2 mg/L
Chemical Oxygen Demand	SM5220-D		10 mg/L
Total Organic Carbon	SM5310-B/C/D		1 mg/L
Total Suspended Solids	SM2540-D		5 mg/L
Total Ammonia (as N)	SM4500-NH3- GH		0.3 mg/L
Flow	Calibrated device		
Dissolved oxygen	4500-OC/OG		0.2 mg/L
Temperature (max. 7-day avg.)	Analog recorder or use micro-recording devices known as thermistors		0.2° C
pH	SM4500-H ⁺ B	N/A	N/A
NONCONVENTIONALS			
Total Alkalinity	SM2320-B		5 mg/L as CaCo3
Chlorine, Total Residual	4500 Cl G		50.0
Color	SM2120 B/C/E		10 color unit
Fecal Coliform	SM 9221D/E, 9222	N/A	N/A
Fluoride (16984-48-8)	SM4500-F E	25	100
Nitrate-Nitrite (as N)	4500-NO3- E/F/H		100
Nitrogen, Total Kjeldahl (as N)	4500-NH3-C/E/FG		300
Ortho-Phosphate (PO ₄ as P)	4500- PE/PF	3	10
Phosphorus, Total (as P)	4500-PE/PF	3	10
Oil and Grease (HEM)	1664A	1,400	5,000
Salinity	SM2520-B		3 PSS
Settleable Solids	SM2540 -F		100

Pollutant & CAS No. <i>(if available)</i>	Recommended Analytical Protocol	Detection (DL) ¹ <i>µg/L unless specified</i>	Quantitation Level (QL) ² <i>µg/L unless specified</i>
Sulfate (as mg/L SO ₄)	SM4110-B		200
Sulfide (as mg/L S)	4500-S ² F/D/E/G		200
Sulfite (as mg/L SO ₃)	SM4500-SO3B		2000
Total dissolved solids	SM2540 C		20 mg/L
Total Hardness	2340B		200 as CaCO ₃
Aluminum, Total (7429-90-5)	200.8	2.0	10
Barium Total (7440-39-3)	200.8	0.5	2.0
Boron Total (7440-42-8)	200.8	2.0	10.0
Cobalt, Total (7440-48-4)	200.8	0.05	0.25
Iron, Total (7439-89-6)	200.7	12.5	50
Magnesium, Total (7439-95-4)	200.7	10	50
Molybdenum, Total (7439-98-7)	200.8	0.1	0.5
Manganese, Total (7439-96-5)	200.8	0.1	0.5
Tin, Total (7440-31-5)	200.8	0.3	1.5
METALS, CYANIDE & TOTAL PHENOLS			
Antimony, Total (7440-36-0)	200.8	0.3	1.0
Arsenic, Total (7440-38-2)	200.8	0.1	0.5
Beryllium, Total (7440-41-7)	200.8	0.1	0.5
Cadmium, Total (7440-43-9)	200.8	0.05	0.25
Chromium (hex) dissolved (18540-29-9)	SM3500-Cr EC	0.3	1.2
Chromium, Total (7440-47-3)	200.8	0.2	1.0
Copper, Total (7440-50-8)	200.8	0.4	2.0
Lead, Total (7439-92-1)	200.8	0.1	0.5
Mercury, Total (7439-97-6)	1631E	0.0002	0.0005
Nickel, Total (7440-02-0)	200.8	0.1	0.5
Selenium, Total (7782-49-2)	200.8	1.0	1.0
Silver, Total (7440-22-4)	200.8	0.04	0.2
Thallium, Total (7440-28-0)	200.8	0.09	0.36
Zinc, Total (7440-66-6)	200.8	0.5	2.5
Cyanide, Total (57-12-5)	335.4	2	10
Cyanide, Weak Acid Dissociable	SM4500-CN I	2	10
Phenols, Total	EPA 420.1		50
DIOXIN			
2,3,7,8-Tetra-Chlorodibenzo-P-Dioxin (176-40-16)	1613B	1.3 pg/L	5 pg/L
VOLATILE COMPOUNDS			
Acrolein (107-02-8)	624	5	10
Acrylonitrile (107-13-1)	624	1.0	2.0
Benzene (71-43-2)	624	1.0	2.0
Bromoform (75-25-2)	624	1.0	2.0
Carbon tetrachloride (56-23-5)	624/601 or SM6230B	1.0	2.0
Chlorobenzene (108-90-7)	624	1.0	2.0
Chloroethane (75-00-3)	624/601	1.0	2.0
2-Chloroethylvinyl Ether (110-75-8)	624	1.0	2.0
Chloroform (67-66-3)	624 or SM6210B	1.0	2.0
Dibromochloromethane (124-48-1)	624	1.0	2.0
1,2-Dichlorobenzene (95-50-1)	624	1.9	7.6

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) ¹ µg/L unless specified	Quantitation Level (QL) ² µg/L unless specified
1,3-Dichlorobenzene (541-73-1)	624	1.9	7.6
1,4-Dichlorobenzene (106-46-7)	624	4.4	17.6
Dichlorobromomethane (75-27-4)	624	1.0	2.0
1,1-Dichloroethane (75-34-3)	624	1.0	2.0
1,2-Dichloroethane (107-06-2)	624	1.0	2.0
1,1-Dichloroethylene (75-35-4)	624	1.0	2.0
1,2-Dichloropropane (78-87-5)	624	1.0	2.0
1,3-dichloropropylene (mixed isomers) (542-75-6)	624	1.0	2.0
Ethylbenzene (100-41-4)	624	1.0	2.0
Methyl bromide (74-83-9) (Bromomethane)	624/601	5.0	10.0
Methyl chloride (74-87-3) (Chloromethane)	624	1.0	2.0
Methylene chloride (75-09-2)	624	5.0	10.0
1,1,2,2-Tetrachloroethane (79-34-5)	624	1.9	2.0
Tetrachloroethylene (127-18-4)	624	1.0	2.0
Toulene (108-88-3)	624	1.0	2.0
1,2-Trans-Dichloroethylene (156-60-5) (Ethylene dichloride)	624	1.0	2.0
1,1,1-Trichloroethane (71-55-6)	624	1.0	2.0
1,1,2-Trichloroethane (79-00-5)	624	1.0	2.0
Trichloroethylene (79-01-6)	624	1.0	2.0
Vinyl chloride (75-01-4)	624/SM6200B	1.0	2.0
ACID COMPOUNDS			
2-Chlorophenol (95-57-8)	625	1.0	2.0
2,4-Dichlorophenol (120-83-2)	625	0.5	1.0
2,4-Dimethylphenol (105-67-9)	625	0.5	1.0
4,6-dinitro-o-cresol (534-52-1) (2-methyl-4,6-dinitrophenol)	625/1625B	1.0	2.0
2,4 dinitrophenol (51-28-5)	625	1.0	2.0
2-Nitrophenol (88-75-5)	625	0.5	1.0
4-nitrophenol (100-02-7)	625	0.5	1.0
Parachlorometa cresol (59-50-7) (4-chloro-3-methylphenol)	625	1.0	2.0
Pentachlorophenol (87-86-5)	625	0.5	1.0
Phenol (108-95-2)	625	2.0	4.0
2,4,6-Trichlorophenol (88-06-2)	625	2.0	4.0
BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)			
Acenaphthene (83-32-9)	625	0.2	0.4
Acenaphthylene (208-96-8)	625	0.3	0.6
Anthracene (120-12-7)	625	0.3	0.6
Benzidine (92-87-5)	625	12	24
Benzyl butyl phthalate (85-68-7)	625	0.3	0.6
Benzo(a)anthracene (56-55-3)	625	0.3	0.6
Benzo(j)fluoranthene (205-82-3)	625	0.5	1.0
Benzo(r,s,t)pentaphene (189-55-9)	625	0.5	1.0
Benzo(a)pyrene (50-32-8)	610/625	0.5	1.0
3,4-benzofluoranthene (Benzo(b)fluoranthene) (205-99-2)	610/625	0.8	1.6
11,12-benzofluoranthene (Benzo(k)fluoranthene) (207-08-9)	610/625	0.8	1.6
Benzo(ghi)Perylene (191-24-2)	610/625	0.5	1.0

Pollutant & CAS No. <i>(if available)</i>	Recommended Analytical Protocol	Detection (DL)¹ <i>µg/L unless specified</i>	Quantitation Level (QL)² <i>µg/L unless specified</i>
Bis(2-chloroethoxy)methane (111-91-1)	625	5.3	21.2
Bis(2-chloroethyl)ether (111-44-4)	611/625	0.3	1.0
Bis(2-chloroisopropyl)ether (39638-32-9)	625	0.3	0.6
Bis(2-ethylhexyl)phthalate (117-81-7)	625	0.1	0.5
4-Bromophenyl phenyl ether (101-55-3)	625	0.2	0.4
2-Chloronaphthalene (91-58-7)	625	0.3	0.6
4-Chlorophenyl phenyl ether (7005-72-3)	625	0.3	0.5
Chrysene (218-01-9)	610/625	0.3	0.6
Dibenzo (a,j)acridine (224-42-0)	610M/625M	2.5	10.0
Dibenzo (a,h)acridine (226-36-8)	610M/625M	2.5	10.0
Dibenzo(a-h)anthracene (53-70-3) (1,2,5,6-dibenzanthracene)	625	0.8	1.6
Dibenzo(a,e)pyrene (192-65-4)	610M/625M	2.5	10.0
Dibenzo(a,h)pyrene (189-64-0)	625M	2.5	10.0
3,3-Dichlorobenzidine (91-94-1)	605/625	0.5	1.0
Diethyl phthalate (84-66-2)	625	1.9	7.6
Dimethyl phthalate (131-11-3)	625	1.6	6.4
Di-n-butyl phthalate (84-74-2)	625	0.5	1.0
2,4-dinitrotoluene (121-14-2)	609/625	0.2	0.4
2,6-dinitrotoluene (606-20-2)	609/625	0.2	0.4
Di-n-octyl phthalate (117-84-0)	625	0.3	0.6
1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	1625B	5.0	20
Fluoranthene (206-44-0)	625	0.3	0.6
Fluorene (86-73-7)	625	0.3	0.6
Hexachlorobenzene (118-74-1)	612/625	0.3	0.6
Hexachlorobutadiene (87-68-3)	625	0.5	1.0
Hexachlorocyclopentadiene (77-47-4)	1625B/625	0.5	1.0
Hexachloroethane (67-72-1)	625	0.5	1.0
Indeno(1,2,3-cd)Pyrene (193-39-5)	610/625	0.5	1.0
Isophorone (78-59-1)	625	0.5	1.0
3-Methyl cholanthrene (56-49-5)	625	2.0	8.0
Naphthalene (91-20-3)	625	0.3	0.6
Nitrobenzene (98-95-3)	625	0.5	1.0
N-Nitrosodimethylamine (62-75-9)	607/625	2.0	4.0
N-Nitrosodi-n-propylamine (621-64-7)	607/625	0.5	1.0
N-Nitrosodiphenylamine (86-30-6)	625	0.5	1.0
Perylene (198-55-0)	625	1.9	7.6
Phenanthrene (85-01-8)	625	0.3	0.6
Pyrene (129-00-0)	625	0.3	0.6
1,2,4-Trichlorobenzene (120-82-1)	625	0.3	0.6
PESTICIDES/PCBs			
Aldrin (309-00-2)	608	0.025	0.05
alpha-BHC (319-84-6)	608	0.025	0.05
beta-BHC (319-85-7)	608	0.025	0.05
gamma-BHC (58-89-9)	608	0.025	0.05
delta-BHC (319-86-8)	608	0.025	0.05
Chlordane (57-74-9)	608	0.025	0.05
4,4'-DDT (50-29-3)	608	0.025	0.05

Pollutant & CAS No. <i>(if available)</i>	Recommended Analytical Protocol	Detection (DL) ¹ <i>µg/L unless specified</i>	Quantitation Level (QL) ² <i>µg/L unless specified</i>
4,4'-DDE (72-55-9)	608	0.025	0.05 ¹⁰
4,4' DDD (72-54-8)	608	0.025	0.05
Dieldrin (60-57-1)	608	0.025	0.05
alpha-Endosulfan (959-98-8)	608	0.025	0.05
beta-Endosulfan (33213-65-9)	608	0.025	0.05
Endosulfan Sulfate (1031-07-8)	608	0.025	0.05
Endrin (72-20-8)	608	0.025	0.05
Endrin Aldehyde (7421-93-4)	608	0.025	0.05
Heptachlor (76-44-8)	608	0.025	0.05
Heptachlor Epoxide (1024-57-3)	608	0.025	0.05
PCB-1242 (53469-21-9)	608	0.25	0.5
PCB-1254 (11097-69-1)	608	0.25	0.5
PCB-1221 (11104-28-2)	608	0.25	0.5
PCB-1232 (11141-16-5)	608	0.25	0.5
PCB-1248 (12672-29-6)	608	0.25	0.5
PCB-1260 (11096-82-5)	608	0.13	0.5
PCB-1016 (12674-11-2)	608	0.13	0.5
Toxaphene (8001-35-2)	608	0.24	0.5

1. Detection Level (DL) or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99 percent confidence that the analyte concentration is greater than zero as determined by the procedure given in 40 CFR Part 136, Appendix B.
2. Quantitation Level (QL) is equivalent to EPA's Minimum Level (ML) which is defined in 40 CFR Part 136 as the minimum level at which the entire GC/MS system must give recognizable mass spectra (background corrected) and acceptable calibration points. These levels were published as proposed in the *Federal Register* on March 28, 1997.

ADDENDUM NO. 3 TO FACT SHEET
Permit No. WA0002232
Lafarge North America, INC.
2013

This is the third addendum to the fact sheet accompanying NPDES Waste Discharge Permit WA0002232, which was issued to Lafarge North America, INC. on December 30, 2010. The first addendum incorporated terms of a settlement agreement reached after Lafarge appealed the original permit. The second addendum described new activities at the permitted site related to transloading materials through the facility via barge, ship, rail, and trucks. The third amendment describes additional SWPPP requirements for material-handling activities in other areas at the plant, and it clarifies Ecology's determination of the nature and potential environmental impact of those changes. This addendum was requested by Lafarge.

The NPDES permit allows stormwater discharge to the Duwamish River via an outfall that drains the majority of the facility. Process wastewater and non-contact cooling water are prohibited from discharge. The plant discharges treated stormwater to the Lower Duwamish Waterway under National Pollutant Discharge Elimination System (NPDES) permit number WA0002232. Condition S8.E.2 of the permit requires Lafarge to update the SWPPP to include description of potential pollutant sources related to new activities.

Contaminated materials from new cleanup sites are stored and expected to be covered in accordance with the permit special section S8, SWPPP. Lafarge shall regularly sweep the work areas around these materials and provide containment or other means to collect and contain the contaminated stormwater where needed to ensure capturing of the contaminated stormwater. If stormwater contacts contaminated materials, it must be collected and disposed offsite up to the water quality design storm and shall not drain to the plant's stormwater treatment system. Lafarge must receive Ecology's concurrence for the water quality storm design of the contaminated stormwater containment areas. In addition, Lafarge, by allowing other parties to operate on its site, has accepted responsibility and liabilities for stormwater non-compliances caused, or resulted as part of their operations on its site.

PERMIT MODIFICATIONS

Lafarge shall update their SWPPP to include general and specific BMPs as needed for storage, handling, and transloading contaminated materials from cleanup sites in other areas of their facility. These new activities **shall not** cause alteration of the permit conditions, create, or increase frequency of discharge, nor degrade quality of discharge from the Lafarge Seattle facility. All other permit conditions shall remain unchanged.

PUBLIC NOTICES

The proposed changes made to the fact sheet of this permit are not considered to constitute a major modification under 40 CFR 122.62. Consequently, it is not necessary to require it to be published for a thirty (30)-day public review and comment period.



Stormwater Pollution Prevention Plan (SWPPP) Lafarge North America Seattle Plant

May 15, 2012

Lafarge North America, Inc.
5400 West Marginal Way SW
Seattle WA 98106

NPDES Discharge Permit
No.
WA-0002232

Prepared For:

Washington State
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

Revision Record

The following list contains the dates and descriptions of amendments made to the Stormwater Pollution Prevention Plan (SWPPP).

December 2006	Updated to include new NPDES permit requirements
April 2008	Updated to include discharge from stormwater vault to sewer per King County permit 7831-01
December 2009	Addendum 1 issued for updates per Ecology Agreed Order No. 7207
December 2009	Appendix B (SWPPP Operations and Maintenance manual) updated per Ecology Agreed Order No. 7207
June 2010	Finalize 4/19/10 draft updates to address Ecology Follow Up Order No. 7193, incorporate Addendum 1 of December 2009, add truck wash discharge to sewer per King County permit 7831-02, incorporate updated O&M Manual (Appendix A) and add SOP appendices B-E.
Current Version	New Permit with Modifications 1 st and 2 nd .

DISTRIBUTION LIST

The following is a list of staff or locations at the facility that retain a copy of the SWPPP. See the Pollution Prevention Team section for responsible staff and contact information

Record Source

Environmental Department

Operations Manager

Production/Shipping Coordinator

Plant Documents

PLAN CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Operations Manager

Date

Table of Contents

Revision Record.....	i
1 Introduction	1
1.1 Background.....	3
1.2 Facility Description.....	3
1.3 Transloading of Materials.....	4
1.4 Stormwater Drainage.....	5
1.5 Receiving Water.....	5
1.6 Facility Modifications	6
2 Stormwater Pollution Prevention Team.....	8
3 Facility Assessment	9
3.1 Summary of Potential Contamination Sources.....	9
3.1.1 Inventory of Significant Materials	9
3.2 Stormwater Drainage System Overview and Operations Summary.....	12
3.3 Description of Pollutant Sources.....	20
3.4 Significant Past Spills and Leaks.....	22
3.5 Stormwater Monitoring and Reporting	22
3.6 Process Wastewater Assessment.....	22
3.6.1 Process Wastewater Sources and Controls	22
3.6.2 Cooling Water Sources	23
4 Best Management Practices (BMPs).....	26
4.1 Operational Source Control BMPs	26
4.2 Structural Source Control BMPs	33
4.3 Treatment BMPs.....	35

Table of Contents (continued)

5	Implementation.....	37
5.1	Implementation of Appropriate Controls	37
5.2	Employee Training Program	38
6	Record Keeping and Internal Reporting	39
7	SWPPP Revisions	40
8	References	42

Table of Contents (continued)

Tables		Page
1	Stormwater Pollution Prevention Team Member Roster and Responsibilities	8
2	Significant Material Inventory	11
3	Stormwater Outfalls and Basin Drainage Areas	13
4	Activities within Drainage Basins of Outfalls	14
5	Stormwater Lift Station Contributing Areas	16
6	Lift Station Capacities	17
7	Process Wastewater Sources	23
8	Non-process Wastewater Sources	25
9	BMP Implementation Schedule	37

Figures

1	Vicinity Map
2	Facility Site Map
3	Facility Drainage Map
4	Water Handling Facilities Single Line Diagram

Appendices

A	Stormwater Operations and Maintenance (O&M) Manual
B	Inspection Forms

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1 Introduction

This revision to the Stormwater Pollution Prevention Plan (SWPPP) was prepared to update the June 2010 plan to document major changes in plant operation and to meet current permit requirements. The Lafarge Seattle Plant is located at 5400 West Marginal Way SW in Seattle, Washington (Figure 1). The SWPPP identifies potential sources of stormwater contamination, response, and preventative measures employed to reduce the risk of stormwater contamination and ongoing management practices designed to optimize the treatment for discharge of stormwater at the facility.

This SWPPP includes an Operations and Maintenance (O&M) Manual (Appendix A) which describes operational and maintenance procedures to manage the facility stormwater and process wastewater according to the NPDES and King County Discharge Authorization permits.

For nearly two decades, essentially all of the facility's runoff was used in the cement manufacturing process, beginning with initial modifications introduced by the prior owner in 1995 and numerous enhancements made by Lafarge since then. The stormwater capture system has enabled the 20 acre facility to recycle the vast majority of stormwater since 1999, resulting in a significant reduction in stormwater discharges to the Duwamish River. With the mothballing of the kiln October 2010, the facility now collects and treats stormwater before discharging to the river.

Facility name: Lafarge North America, Seattle

Facility location: 5400 West Marginal Way SW, Seattle, WA 98106

Name and address of owner:

Lafarge North America, Inc.

12950 Worldgate Dr., Suite 600, Herndon, VA 20170

Type of facility: Slag grinding and cementitious product blending and shipping, transloading of non-hazardous materials.

SIC Code: 3241, **NAICS Code:** 327310

Date of initial operation: 1967

Operating schedule: 24 hours/day

Number of employees: 30

NPDES Permit No.: WA-0002232, effective January 1, 2011

King County Major Discharge Authorization: No.: 4204-01 effective May 1, 2011

Puget Sound Clean Air Agency Permit: No. 14046

Incorporation of Existing Environmental Plans

Lafarge has the following plans already in existence:

- Spill Prevention Control and Countermeasures (SPCC) Plan (AIM Document No. SPCC SOP001)

SWPPP Availability

The current SWPPP is maintained onsite in the Environmental Department office at the Seattle Plant. Lafarge will retain the SWPPP and all required records for a minimum of three years. A copy of this SWPPP will be made available to Ecology, King County, or any authorized agency representative upon request per NPDES Permit Special Condition S.10.E. 1.

1.1 Background

From 1967 to 2010, the Lafarge Seattle facility was a single kiln, wet process, portland cement manufacturing facility, which produces portland cement and other cementitious products. The plant had the capacity to produce 490,000 tons of portland cement annually.

The Lafarge Seattle facility is covered under NPDES Permit No. WA-0002232 and accompanying Fact Sheet, issued by the Washington Department of Ecology, and effective on January 1, 2011 with expiration December 14, 2015. Permit Condition S.8 outlines the SWPPP requirements. The NPDES permit requires the permittee to update the SWPPP whenever there is a change in design, construction, operation or maintenance, which causes the SWPPP to be less effective. This facility has been covered by NPDES permits since at least 1994. The last major SWPPP update was in 2010.

This SWPPP has been updated to reflect stormwater management changes associated with the requirements of the NPDES Permit WA0002232.

Process wastewater is discharged through the King County Major Discharge Authorization No. 4204-01.

This cement manufacturing facility instituted a comprehensive stormwater recycling program as part of Seattle Public Utilities Water Smart Technology Program, beginning in 2001. Under routine operating conditions, stormwater is captured and was reused in the cement manufacturing process. Consequently, stormwater discharge was infrequent and limited to periods where runoff volumes exceed storage and usage needs, such as during periods of scheduled maintenance. Beginning in 2009, changing economic conditions resulted in more frequent plant shutdowns for Production not required (PNR). The PNR shutdowns made complete stormwater recycling at historical levels an unsustainable practice. In 2010, the kiln was mothballed and, consequently, the periodic discharge of excess stormwater is now necessary.

1.2 Facility Description

The Lafarge Seattle plant is located at 5400 West Marginal Way SW, in Seattle, Washington. The facility is approximately 19.4 acres in area and about 96 percent of this area is covered with pavement, buildings or other structures. The facility is bordered to the west by West Marginal Way SW and Burlington Northern Railroad, to the south by Chemithon Corporation and Alaska Marine Lines, and to the east and north by the Duwamish Waterway. A vicinity map is provided as Figure 1.

During 2010-2011, the Lafarge Seattle plant transitioned to new operations involving manufacturing, blending and shipping which grinds granulated blast furnace slag imported as a feed stock for processing into various cementitious products. Periodic operations include transloading of various non-hazardous materials.

The plant has been operated continuously since 1967. Lafarge purchased from the plant its previous owner (Holnam, now Holcim) in 1998. Unlike other nearby cement facilities, Lafarge does not operate a batch concrete operation at the facility, but does operate a truck wash near the facility entrance for trucks departing after bulk cement sales. Wash water from the truck wash is discharged to the King County/Metro sanitary sewer system according to the discharge authorization requirements.

As a slag cement production facility, granulated blast furnace slag is delivered to the facility via ship. A waterfront crane located on the east wharf unloads and transfers the material to a holding area. The slag is dried with a natural gas rotating drum dryer and conveyed to a silo and then the finish mills located inside the mill building. The finish mills pulverize the slag, gypsum and kiln dust along with a small amount of liquid grinding aid. The final product is pneumatically conveyed to the bulk storage silos.

The facility has several designated loading and unloading areas. Raw materials are delivered to the facility via railcar, ship, barge, and truck. A waterfront crane located on the east wharf unloads the barges/ships and transfers materials to a holding area or to the raw materials conveyor. The final cementitious product is offloaded from the silos for rail or truck shipping or is packaged in bulk or consumer-sized bags for transport via truck.

Gypsum and slag are stored outdoors in large bunkers until they are incorporated for use in the manufacturing process. A covered shed is used for coal/coke storage.

1.3 Transloading of Materials

The plant's existing material transfer infrastructure, including the waterfront crane, will be used to move material to or from barges. The 1.1M gallon containment vault will be used to accumulate materials during the transloading process. Accumulated material in the vault will then be loaded into barges, trucks, or railcars for shipment offsite. The vault will be removed from stormwater service while holding transload materials. The plant's existing stormwater flows from Basins 1, 4 and 8 has been routed around the vault to existing stormwater infrastructure, including Tanks 2, 3, and 4 which provide an equivalent stormwater storage volume to the vault. All potentially contaminated stormwater generated from the transload activity will be captured and shipped offsite with the materials or disposed of properly offsite. The transload work area will have new stormwater source control best management practices (BMPs) including structural

controls that isolate the work area and prevent the comingling of process-related materials with the facility's existing stormwater discharges.

stormwater Drainage

The entire site is paved with concrete except for a small open gravel area just north of the main entry gate along the railroad and curbed landscaped areas south and west of the entry gate. There are no significant soil erosion areas on site. A facility site plan is included as Figure 2. Figure 3 depicts the on-site stormwater drainage basins and the general direction of stormwater flows within each drainage basin.

The NPDES permit permits stormwater discharge to the Duwamish River under specific circumstances via Outfall 008 which drains the majority of the facility. Outfall 001 and 004 were capped in 2010. Process wastewater and non-contact cooling water are prohibited from discharge to the river and are collected and disposed of through the sanitary sewer system under the King County Major Discharge Authorization. See Section 3.6 for the assessment of process wastewater and cooling water.

Stormwater from the majority of the facility is pumped to the stormwater detention vault or storage tanks 2, 3 and 4 before treatment and discharge to the river. The current system has the capability to handle flows up to the 10-yr, 24-hour rainfall event (2.9 inches). See Section 3.2 for a more detailed description of the stormwater system. Appendix A contains the updated Stormwater O&M Manual.

1.4 Receiving Water

Lafarge is located along the Duwamish Waterway between approximately River Mile (RM) 1.0 and 1.2. Lafarge's outfall 008 discharges into the waterway at about RM 1.2. The Duwamish Waterway is estuarine and well-stratified, with an upper freshwater layer flowing to Elliott Bay and a marine water salt-wedge that is tidally driven upstream beyond the Lafarge plant.

Use designations for the Duwamish Waterway (from mouth to RM 11.0) are as follows: aquatic life use for salmonid rearing and migration, only; secondary-contact recreational uses; water supply uses for industrial, agricultural and stock water; and miscellaneous uses (wildlife habitat, fish harvesting, commerce/ navigation, boating and aesthetics) (WAC 173-201A-602). Water quality standards for the waterway are specified in Washington's Surface Water Quality Standards, chapter 173-201A WAC.

The Lower Duwamish Waterway (LDW) was added to EPA's National Priorities (Superfund) List in 2001. In addition to extensive investigatory and cleanup actions in and along the waterway, source control efforts have been implemented to reduce the conveyance of stormwater pollutants to the waterway. SPU reports there are

approximately 230 piped outfalls, ditches, and streams discharging to the LDW; over 200 of the piped outfalls are believed to be public and private storm drains (SPU, 2007).

Using Ecology's Water Quality Assessment for Washington Version 1.00 Simple Query Tool 2008, three records are reported for Category 5/303(d) listings for water in the Duwamish Waterway: fecal coliform (one listing) and dissolved oxygen (two listings) (<http://apps.ecy.wa.gov/wats08/Default.aspx>). The Duwamish Waterway is covered by a state water cleanup plan (also known as a Total Maximum Daily Load or TMDL) for ammonia-N (Water Quality Improvement Projects for King County. www.ecy.wa.gov/programs/wq/tmdl/TMDLsbyCounty/king/html, last updated August 2009).

1.5 Facility Modifications

The Lafarge Seattle plant has undergone many changes over the years resulting in significant environmental benefits. These changes and improvements related to stormwater include the following items:

- The pump station for routing the excess water inventory from the stormwater vault to the King County sewer was removed.
- Outfalls 001 and 004 were blocked with concrete and cannot flow to the river.
- A new electro-coagulation stormwater treatment system was installed to treat water from Tank 4 and discharge to Outfall 008, December 2011.
- The vault was retrofitted in 2011 for use as a containment vault for material transloading. The stormwater was routed directly to the transfer sump in the claywash building.
- The water from lift stations 001, 004 and 008 were rerouted to the transfer sump.
- A 2800 gpm backup pump was added to transfer water from the transfer sump to Tank 3 or Tank 4 in 2012.
- Basin 10 was eliminated by filling with clean material and paved with concrete.
- A removable pipe is available to be installed on the East Washmill discharge line to transfer stormwater into the containment vault. The containment vault provides additional stormwater storage when it is clean of all transload materials. Stormwater from the containment vault can be returned to Tank 3

or 4 by blanking the line to the vault and pumping with the side sump pump or a portable pump lifting the water to the East Washmill.

2 Stormwater Pollution Prevention Team

In planning and organizing the approach to industrial stormwater pollution prevention, a team was selected to represent specific responsibilities reflecting knowledge of the facility and its operations. Senior management oversees the program and holds overall responsibility for its success. As shown in the roster and organizational chart of the team, communication with upper management and throughout the organization is critical. The SWPPP is regularly reviewed and updated to ensure accuracy and coordination with other environmental plans. The following personnel comprise the Stormwater Pollution Prevention (“P2”) Team for Lafarge.

Table 1. Stormwater Pollution Prevention Team Member Roster and Responsibilities

Member Roster	Responsibilities
Leader: Environmental Department	<ul style="list-style-type: none"> - Overall responsibility for the SWPPP - Determines changes required to SWPPP due to operational or BMP changes, updates and issues the SWPPP - Prepares and submits discharge monitoring reports (DMRs) to Ecology - Performs inspections - Keeps pertinent records - Informs team of all general permit and pollution prevention plan requirements - Coordinates sampling
Member: Operation Manager	<ul style="list-style-type: none"> - Maintains clear line of communication with plant management - Holds SWPPP signatory responsibility
Member: Maintenance Planner	<ul style="list-style-type: none"> - Determines changes required to SWPPP due to maintenance changes - Assures proper maintenance is completed.
Member: Production/Shipping Coordinator	<ul style="list-style-type: none"> - Conducts inspections - Conducts site evaluations - Suggests revisions to SWPPP as needed - Coordinates employee training program - Informs Environmental Department of outfall discharges to facilitate required sampling

3 Facility Assessment

Facility Maps

The following figures depict the location of the facility and pertinent information for the SWPPP:

- Figure 1 is the vicinity map;
- Figure 2 is the facility site map;
- Figure 3 is the facility stormwater drainage map; and
- Figure 4 shows schematic of the water handling facilities for stormwater and process water and wastewater as related to Section 3.6.

Figure 2 depicts a footprint of all buildings, structures, paved areas, material storage areas, parking lots, and locations and names of receiving waters adjacent to this facility. The Figure 3 facility drainage map also includes the following features:

- Drainage basin boundaries;
- Stormwater outfall numbers and locations; and
- Drainage pipes and key infrastructure within each basin.

Note: while outfall 007 discharges from the seawall bounding the east side of the Lafarge property, it does not drain Lafarge property. Outfall 007 is a 36-inch diameter pipe that drains the adjacent Chemithon property and therefore is not included in the Lafarge NPDES permit. Outfall 007 is in the vicinity of Lafarge outfall 008 and former Lafarge outfalls 005 and 006 which were capped. Also in this vicinity, but not on the property, is a large outfall from the adjacent Alaska Marine Lines facility. Section 3.2 below provides a more detailed description of the Lafarge facility stormwater drainage.

3.1 Summary of Potential Contamination Sources

Potential stormwater contamination sources include outdoor storage of raw materials, mobile equipment, and loading and unloading activities. An aggressive housekeeping program helps reduce the threat of contamination. Following is an inventory of significant materials and description of potential pollutant sources.

3.1.1 Inventory of Significant Materials

The P2 Team assessed materials used, stored, or produced at the facility. Table 2 presents the list of significant materials exposed or potentially exposed to rainfall. The material storage areas are shown on Figure 2, which includes a list of coded locations in the key.

Significant materials onsite at the Seattle Plant in quantities greater than five gallons that have the potential to impact stormwater are categorized into three general categories. The categories include raw materials, fuels, and finished products. Other materials (such as janitorial supplies or laboratory chemicals) are present on-site but are stored in small quantities and are located indoors with no potential to impact stormwater.

Raw materials: Raw materials used in cement production include granulated blast furnace slag, gypsum, and cement kiln dust. Raw materials temporarily stored on site prior to transloading to off-site customers include sand and other alternate raw materials containing calcium, silica, iron or alumina.

Fuels: Petroleum coke and coal stored on site for shipment to offsite customers.

Finished products: Several cementitious products are manufactured at the Seattle Plant. Fly Ash is also received, blended and shipped from the plant.

Transloaded materials: Several products or materials are transloaded at the Seattle Plant. These materials are non-hazardous and non-dangerous. Minimal quantities are kept on site for short periods of time.

Table 2. Significant Material Inventory¹

		Material Inventory			
Material	Stormwater Drainage Basin	Purpose / Location	Quantity (per month)		
			Used	Produced	Stored
Slag (tons)	8	Raw Material / Outside	8.3k	0	<30k
Gypsum (tons)	8	Raw Material / Outside	0.5k	0	<7k
Grinding aid (gals)	8	Processing Aid / Inside Tank	1.5k	0	<10k
Lignin	8	Finished Product/Tank 1	0	0	600k
Misc Materials for transload (tons)	8	Transload/Outside	0	0	<8k
Diesel (gals)	8	Fuel / Outside Tank F2	0	0	<180
Coke / coal (tons)	4	Fuel / Inside / Outside	0	0	<6k
Cementitious products (tons)	4, 8	Finished Product / Inside	0	8.3k	<70k

¹Refer to Figure 2 for locations and codes listed.

3.2 Stormwater Drainage System Overview and Operations Summary

This section describes the facility's stormwater drainage system. Appendix A describes the operation and maintenance procedures.

Stormwater System Overview

The facility's stormwater drainage area is approximately 19.4 acres¹. Drainage basins were defined by pavement slopes and stormwater conveyance piping based on the 1996 Engineering Report (Vasey 1996). Basins 9A, 9B, and 12 have no stormwater outfalls. Basin 1C drains the truck wash and runoff is pumped to the sanitary sewer according to the King County permit. Activities taking place within each basin are described in Table 3. Offsite stormwater run-on into the facility can occur at the entrance from West Marginal Way; the area of run-on has not been estimated but would be expected to contribute stormwater to basins 4 and 8.

Table 3. Stormwater Outfalls and Basin Drainage Areas

Outfall	Basin	Total Area (ac)	Pervious Area (ac)	Impervious Area (ac)
008	1	1.8	-	1.8
008	1A	0.53	0.14	0.39
008	1B	0.47	0.30	0.18
Sewer	1C ¹	0.01	-	0.01
008	3	0.90	-	0.90
008	4	3.86	0.07	3.79
008	4A	0.46	-	0.46
008	5	0.37	-	0.37
008	6	0.35	-	0.35
008	8	9.1	0.12	9.0
None	9A	0.39	-	0.39
None	9B	0.39	-	0.39
008	11 ²	0.45	-	0.45

None	12 ³	0.31	-	0.31
	TOTALS	19.4	0.62	18.8

¹Basin 1C is the 550 square foot area drained by the truck wash sump pump which discharges to the sewer.

²Basin 11 is the containment vault

³Basin 12 is the approximately 10-foot wide margin of the eastern wharf (the narrow strip that lies outboard of the crane rail and adjacent trench drain).

Table 4. Activities within Drainage Basins of Outfalls

Lift Station	Drainage Basins	Activities, Buildings and Materials
001	1, 1B	<ul style="list-style-type: none"> • rail spur (basin 1B) • cement storage warehouse • western portion of cement storage silos • Truck wash segregated in basin 1C with pump to sewer
004	4, 4A	<ul style="list-style-type: none"> • Offsite run-on from West Marginal Way SW • Coal/Coke storage building • Rail spur • Scale House and Loading Bins • Main office building roof (north side) • Additives building • North portion of east wharf west of crane rail (basin 4A)

008	3, 5,6,8, 11	<ul style="list-style-type: none"> • Main office building • Employee parking lot and landscaping • Mill building roof • Compressor building roof • Kiln roof • USTs for fuel • Raw material piles • Blast furnace slag storage • Recycling and garbage dumpsters • South portion of east wharf west of crane rail (Basins 5 and 6) • Containment vault (Basin 11) • Heavy equipment movement for managing material piles • Cooling tower • Stormwater storage tanks 2, 3 and 4 • Lignin storage tank 1
-----	--------------	---

Lift Stations 001, 004 and 008 drain a total of 18.3 acres (94%) of the facility as outlined in Table 3 and shown on Figure 3.

- Outfall 007 drains the adjacent Chemithon facility. There is no corresponding basin 7 for Lafarge stormwater drainage (“basin 7” was inferred in the 1996 Engineering Report as related to outfall 007). Therefore, basin 7/outfall 007 is not included in this SWPPP.
- Basin 10 was filled and paved over in 2010. Stormwater from this area drains into Basin 004.
- Outfalls 001 and 004 were plugged with concrete in 2011, these outfalls formally drained Basins 1 and 4. At this time, no overflow discharge to the river is possible through these outfalls.

As a result of several historical piping modifications over the history of the facility, 94% of the total stormwater drainage area (18.3 acres) is served by three lift stations (LS): LS 1, LS 4, and LS 8 as shown in Table 5 (Aquarius, 2010). Stormwater flows by gravity to these lift stations, which in turn route stormwater flows into the plant’s stormwater retention and treatment systems as described further below. The majority (58%) of the facility drainage area flows to LS 8.

Table 5. Stormwater Lift Station Contributing Areas¹

Lift Station	Basins	Total Area (ac)	% Total Facility
LS 1	1, 1A, 1B	2.8	14%
LS 4	4, 4A	4.36	22%
LS 8	3, 5, 6, 8, 11	11.2	58%
	Total area served by lift stations	18.3	94%

¹Basin 1C lift station discharges truck wash water (process wastewater) to sewer. Each LS is equipped with a fully-automated submersible pump system. See Table 6.

Lift station 8 has a weir installed to control discharges to the respective outfall. Discharges to outfall 008 occur from the stormwater treatment system or when rainfall induced flow rates exceed the respective lift station pump capacities. The lift station pumps were designed so that overflow does not occur unless a storm exceeds the 10-year, 24-hour event (Aquarius, 2010). The weir is equipped with an ultrasonic level sensor that allows calculation of stormwater discharge rates for the outfall. The system is integrated into the plant’s overall monitoring and controls system, and system operation is monitored and may be controlled by operators if necessary.

Table 6. Lift Station Capacities

Lift Station	Pump (hp)	Estimated Operating Flow Range (cfs) / (gpm)	WWHM¹ 10-yr Flow (cfs) / (gpm)
LS 1	20	1.3 – 1.8 / 600 – 800	0.992 / 445
LS 4	20	2.2 – 2.7 / 1000 – 1200	1.410 / 633
LS 8	35 & 47	4.0 – 4.9 / 1800 – 2200	3.641 / 1635

1. Western Washington Hydrology Model-see the 2010 Aquarius Environmental Engineering Report.

Stormwater System Operational Procedures

The stormwater retention and treatment systems are managed such that the water is treated before discharge. Total water inventory in the stormwater tanks and vault is kept at a minimum to maximize storage capacity available for surges in stormwater supply related to heavy rainfall. The operators manage overall water inventory by treating the stormwater and to maximize the available storage capacity.

Control System

A programmable logic control system (PLC) controls the start and stop of the lift station pumps, monitors the pump motor status, indicates water levels, valve positions, and provides alarms for when pump station capacity is exceeded and results in stormwater discharges. The PLC system is used to control the operation and monitor the status of the stormwater treatment system. The PLC status and information is continuously available to the production operator on duty at any of the computerized human machine interfaces (HMI). The system is fully automatic during normal operation. Operator input is required for water routing changes, discharge sampling, stormwater vault inventory management, and maintenance procedures.

Lift Station Equipment and Operation (common to LS 1, 4 and 8)

Stormwater flows by gravity to the lift station terminal sump with pump⁴ and level sensors. LS 8 is equipped with an overflow control weir. Dual high level and low level float switches installed in the sump are connected to the PLC. These level sensors allow the pump to start and stop automatically. The pump can also be controlled directly by the PLC, or manually started from a local start/stop station. An ultra-sonic level sensor is installed on the pump side of the weir to monitor water level and provide redundancy for the float switches. At Outfall 008 an additional ultrasonic sensor on the outfall side of the weir gages stormwater discharges and signals the control room attendant when stormwater discharge occurs. The Environmental Department coordinates the inspection of any stormwater discharges and sample collection for analysis.

Stormwater Management System

This section describes the stormwater handling and treatment system. Each of the following components described below is also shown schematically in Figure 4.

Stormwater Handling System

The stormwater tanks 2, 3, 4 and containment vault provide the primary stormwater storage for the plant.

Lift stations 1, 4 and 8 transfer stormwater into the transfer sump. There are two pumps associated with transferring water out of the transfer sump:

- 8" Wilfley pump (1800 gpm);
- Griswold pump (2800 gpm).

The transfer pumps are primarily controlled by the PLC system automatically. When the transfer sump high level is triggered, one of the transfer pumps starts, when the transfer sump low level is triggered the running transfer pump stops. The transfer pumps alternate operation with the Griswold pump starting for 4 cycles and the Wilfley pump starting for one cycle. This ensures that the pumps are both live and do not plug up with sediment while down.

The side sump is located on the southwest corner of the vault. The side sump pump transfers the water collected in the containment vault to either of the wash mills or to Tank 3 or 4. The pump may also be operated manually by an operator in the control room or at a local switch. Water routing is determined by the operators based on stormwater storage availability.

The east and west wash mills each have a dedicated transfer sump pump that transfers water from the wash mill to the transfer sump located south of and adjacent to the two wash mills. These two pumps are manually controlled. The transfer sump overflows into the east wash mill. The wash mills have level sensors.

Wastewater Storage Tank (WWST)

The WSST tank is a surge tank for collecting process wastewater from the compressor room and mill building before discharging to the sanitary sewer under the Major Discharge Authorization.

Sewer Disposal

The truck wash has a pump for disposing process wastewater generated by truck washing. The sewer discharge is permitted by the King County Major Discharge Authorization and subject to discharge limitations.

3.3 Description of Pollutant Sources

The potential sources and activities that may reasonably be expected to add significant amounts of pollutants to stormwater discharges are categorized into three main groups:

1. Loading and unloading, including material handling;
2. Outdoor storage; and
3. Particulate generating processes, including fugitive dust and point source emissions from dust collectors.

Loading and Unloading

The facility has several designated loading and unloading areas. Raw materials are delivered to the facility via railcars, ships, barges, and trucks. The waterfront crane located on the east wharf unloads barges and ships to a holding area or to the raw materials storage area.

The final cement product is pneumatically conveyed to two sets of bulk storage silos and a storage warehouse where it is loaded from the silos for shipping via rail or truck or is packaged in bulk or consumer sized bags for transport via truck.

Hazardous and non-hazardous wastes are managed at the site in a covered area and stored in appropriate containers within secondary containment prior to off-site shipment by enclosed truck for disposal. The facility is currently an exempt small quantity generator.

Lignin will be unloaded from barges docked at the plant's east wharf through an 8-inch diameter transfer pipe to tank 1.

Outdoor Material Storage

Storage tanks, leased dumpsters, and material bunkers comprised of concrete ecology blocks are used for outdoor storage of significant materials. The following container types are used at the facility as shown on Figure 2:

- Roll-off dumpsters;
- A trash compactor used for non-recyclable plant trash;
- One 180-gallon diesel tank for the emergency generator (F2);
- Grinding aid tank (inside mill building);
- Two 1,000-gallon underground storage tanks containing diesel and gasoline for vehicle fueling (D1); and

Fugitive Dust Generating Processes

Outdoor fugitive dust sources at the facility include raw material, product, and coal/coke handling activities. The remaining particulate matter is generated from point and minor fugitive air emission sources located throughout the facility. When needed for dust control, water is sprayed on bulk materials such as gypsum when unloaded from barges.

3.4 Significant Past Spills and Leaks

The facility has not had a significant spill within the past three years. A *de minimis* discharge from outfall 008 occurred on June 18, 2009, due to a float switch malfunction. Approximately 400 gallons were discharged.

3.5 Stormwater Monitoring and Reporting

Lafarge collects and analyzes stormwater samples twice per month and submits quarterly DMRs to Ecology per NPDES Permit Conditions S2 and S3. Samples are also collected from the WWST-and truck wash discharge points to the sanitary sewer per the requirements of the King County Major Discharge Authorization. Quarterly reports are submitted to King County listing the metered volumes and analytical results per the authorization's requirements. A monthly discharge report is also submitted to SPU for billing purposes. The Environmental Department is responsible for sampling and monitoring these activities per the written procedures filed in the facility's Environmental Management System (EMS). Copies of stormwater sampling data are included in files by calendar year kept by the Environmental Department. Monitoring procedures are outlined in Appendix A.

3.6 Process Wastewater Assessment

The Lafarge NPDES permit (Condition S1.A) prohibits the discharge of process wastewater and non-contact cooling water. This section describes the process wastewater and non-contact cooling water sources, the current status of separation, and planned activity for further follow up actions where needed.

3.6.1 Process Wastewater Sources and Controls

Table 7 below summarizes the current sources of process wastewater and cooling water. Figure 5 ("single line diagram") depicts the process wastewater and stormwater flows. During these evaluations, several potential sources were confirmed as non-process wastewater, such as various building sumps that would only receive industrial stormwater runoff. See Table 8. These sumps are addressed under source control BMPs in Section 4.

Process wastewater can also be generated by the truck wash near the facility entrance. The truck wash is provided by Lafarge for use by independent truck operators exiting the facility after purchasing bulk cement (dry) product. This facility provides a BMP to prevent tracking offsite, which is also related to air emission controls for dust. Domestic water is used for washing trucks, with washing confined to a 550 square foot concrete pad isolated by trench drains. Water collected by these drains is captured in a sump and pumped to the sanitary sewer, subject to a 50 gpm maximum allowed by King County Major Discharge Authorization.

As permanent physical isolation controls, the Tank 3 outlet had a flange blind added to permanently isolate it from the vault. Tank 3 and 4 drains had been plumbed to a common tee, with control valves on each line. The compressor and mill building sump pumps have been rerouted from the wash mills to the WWST tank.

3.6.2 Cooling Water Sources

The Plant has a closed loop cooling system which can use stormwater or city water as make-up water.

Table 7. Process Wastewater Sources

Item	Source	Basin	BMP
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1	Truck wash	1C	Sewer disposal (King County Authorization)
2	Compressor bldg sump pump	8	Sewer disposal (King County Authorization)
3	Mill bldg sump pump	8	Sewer disposal (King County Authorization)

Table 8. Non-process Wastewater Sources

Item	Source	Basin¹	BMP
1	Fountain drain at office entry	8	Cap/plug to prevent drainage to basin 8
2	Raw reclaim bldg sump/pump ²	8 (3)	Dry cleanup, or block and pump to process water system
3	Scale House sump/pump ²	4	Dry cleanup, or block and pump to process water system
4	Additives bldg sump/pump ²	4	Dry cleanup, or block and pump to process water system
5	Coal bldg sump (no pump)	4	Dry cleanup, or block and pump to process water system

¹Indicates stormwater drainage basin (or subbasin) addressed by BMP.

²These sumps were dry and had no evidence of recent water when inspected.

4 Best Management Practices (BMPs)

This section describes the current source control and treatment BMPs employed at the Lafarge Seattle plant. The BMPs included in this Section are a combination of existing site BMPs, and those recommended in Ecology's 2004 *Guidance Manual* and Volume IV of Ecology's 2005 *Stormwater Management Manual (SWMM) for Western Washington*. The Volume IV SWMM BMPs reviewed include:

1. Fueling at Dedicated Stations;
2. Loading and Unloading Areas for Liquid or Solid Material;
3. Washing and Steam Cleaning Vehicles, Equipment and Building Structures;
4. Dust Control at Manufacturing Areas;
5. Storage or Transfer (Outdoor) of Solid Raw Materials, By-products, or Finished Products;
6. Maintenance of Stormwater Drainage and Treatment Systems; and
7. Spills of Oil and Hazardous Substances.
8. Storage of Liquids in Permanent Above-ground Tanks.

The BMP's are divided into three main categories: operational, structural source controls, and treatment BMPs. Operational source control BMPs are non-structural that prevent or reduce pollutants from entering stormwater. Examples include formation of a pollution prevention team, good housekeeping practices, preventive maintenance procedures, spill prevention and cleanup, employee training, inspections of pollutant sources, and record keeping. They can also include process changes, raw material/product changes, and recycling wastes. Structural source control BMPs are physical, structural, or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater. Treatment BMPs are devices or facilities that are intended to remove pollutants from stormwater. These BMPs are summarized below.

4.1 Operational Source Control BMPs

Good Housekeeping

Good housekeeping practices maintain a safe, clean and orderly work environment and minimize dust and debris accumulation. Housekeeping activities include, and are not limited to, the following practices.

- Personnel are assigned to keep interior and exterior areas of buildings free of excess materials, debris, and wastes.
- Whenever practical, materials temporarily stored outdoors will be managed to minimize the potential for contact with stormwater. Stored materials too large to cover will be kept away from drains where stormwater runoff flows or drains will be protected whenever possible.
- Material handling equipment and vehicles are cleaned as necessary to remove accumulated dust and residue that can be sources of stormwater pollutants.
- The entire site is swept weekly, with a large mechanical street sweeper to reduce stormwater contamination.
- Basin 9B is inspected and swept as needed to address the potential tracking of materials from adjacent Basin 1 stockpiles or from the cement storage warehouse. There are no material storage areas in Basin 9B. Runoff drains via sheet flow and infiltrates into the embankment materials.
- When cleaning floors or ground surfaces draining to sumps in the following locations, do not use water because the wash water would become process wastewater and could enter the stormwater vault via storm drains leading to lift stations 4 and 8: Raw Reclaim building, Additives building, Coal storage building, Scale house, truck scales.
- Maintain clean floors and ground surfaces by using brooms, shovels, vacuum cleaners, or cleaning machines. Vacuum sweep the outside, exposed, area daily, or as often as necessary, to keep paved area clean.
- Clean both wharf areas immediately after each loading and unloading event and after every maintenance activity that can leave debris on the wharf. The east wharf is swept after barge or slag ship unloading and the narrow area between the waterfront crane rail and wharf edge is swept manually after vessel unloading.
- Provide adequate aisle space to facilitate material transfer and easy access for inspections.
- Store containers, drums, and bags away from direct traffic routes to prevent accidental spills. (See SPCC Plan.)
- Store containers on pallets or similar devices to prevent corrosion of the containers from coming in contact with moisture on the ground.

- Containers, drums and bags are labeled and stored in designated areas.
- Regularly remove scrap metal, wood, plastic, miscellaneous trash, paper, glass, industrial scrap, insulation, welding rods, packaging, etc. from the plant grounds.
- Clearly tag or label storage tank valves to reduce human error.
- Clean the deflector apron on the wharf crane regularly to prevent buildup of debris which may leach into the waterway during rain events.
- Place drip pans, drums, or other containment devices at points where liquid leaks may occur, such as hose connections.
- Immediately cleanup any lignin spill during loading or unloading. Clean transfer areas at the end of transfer operations, or at the end of each working day for multi-day operations.
- Clean transload work areas at the end of transload projects, or at the end of each working day for multi-day operations. Use dry cleanup methods, or if needed, use minimal water to wash surfaced and ensure wash water is routed to the vault or separate container for proper disposal offsite.

Preventive Maintenance (PM)

The following procedures describe general and specific PM measures:

- Perform PM when the need is indicated in results of weekly inspections and the periodic Maximo work orders (see inspection section below, and Appendix B);
- Keep equipment clean; don't allow excessive build-up of oil and grease;
- Maintain equipment either internally or through contractors;
- Keep catch basins and stormwater conveyance system clean as needed with onsite cleaning equipment;
- Maintain dust control equipment;
- Maintain LS 1, 4 and 8 and the stormwater treatment system;
- Clean the catch basin inserts installed and replace as required;

- Oil is drained from oil filters prior to disposal. Empty oil and fuel filters, oily rags, and other oily solid waste is disposed in appropriately closed and properly labeled containers in the designated waste storage area which is in compliance with WAC 173-303.
- Lignin transfer equipment will be tested with clean water to identify potential leaks prior to offloading.

Visual Inspections

The Lafarge Seattle plant has multiple inspection programs including:

1. Weekly SWPPP inspections as required by permit conditions S10.B.5 and S10.C (visual stormwater quality, pollutant source descriptions, BMPs, and sediment control inspections during the wet season);
2. Monthly electrical PM inspections of outfall and lift stations;
3. Quarterly mechanical PM inspections of lift stations; and
4. Daily production inspections documented in the Plant Performance Web (PPW) system.

The monthly and quarterly PM inspections are triggered automatically by work orders from the plant's PM system (Maximo, see Appendix B examples). The weekly inspection results are documented on forms included in Appendix B.

The following procedures and inspection points are incorporated in the above inspection programs:

- Check the LS 1 and 8 stormwater conveyance pipelines (adjacent to the river and along the east wharf);
- Examine material handling equipment, pipes, hoses, valves, and flanges for leaks, corrosion, and other deterioration;
- Examine lift stations and outfall for visual presence of contamination (floating materials, suspended solids, oil and grease, discoloration, turbidity, odor, etc);
- Confirm description of potential pollutant sources in Section 3.2 is accurate;
- Confirm source control and treatment BMPs identified in this SWPPP are being implemented adequately;

- Inspect all on-site sediment control facilities (including catch basins) and BMPs once a week during the wet season (October 1 – April 30). Stormwater catch basins and sewer lines are regularly inspected for blockages and kept free of litter and debris so that runoff can drain freely;
- All moored vessels are visually inspected for the presence of oil or other liquid spills or leaks that could reach the river. Communication measures are in place with the neighboring facilities in order to address potential spill or contamination problems arising from vessels associated with other facilities;
- Dust collector equipment is routinely inspected and maintained in good working order;
- Dust from piles, material unloading, and material transfer during dry weather periods is collected using the two mechanical sweepers whenever necessary; and
- The BMP systems are inspected regularly and cleaned of oils, debris, sludge, etc. as needed to minimize the potential for the contamination of stormwater.

An inspection report is prepared summarizing each inspection. The inspection report includes:

- The scope of the inspection;
- The personnel conducting the inspection;
- Date(s) of the inspection;
- Major observations relating to the implementation of the SWPPP; and
- Any actions taken as a result of the inspection.

Spill Prevention and Response

The facility follows the guidelines of a site-specific SPCC Plan. The plan details prevention and control aspects including where secondary containment is provided for the petroleum products in tanks and drums used and stored on-site. The SPCC Plan includes established procedures used by facility personnel in the event of spills of significant materials.

Facility personnel who may be involved in spill events are familiar with the response procedures to the extent that, during a spill emergency, they can act without the need to refer to the plan for procedural guidance. The following BMPs are associated with spill prevention, reporting and cleanup, in addition to those detailed in the SPCC Plan.

1. An employee trained in spill prevention and cleanup must be present during loading/unloading of materials.
2. Drip pans or spill trays are placed at locations where leaks or spills may occur such as hose connections, hose reels and filler nozzles. Drip pans shall always be used when making and breaking connections. Loading and unloading equipment such as valves, pumps, flanges, and connections are checked regularly for leaks and are repaired as needed.
3. Spills are stopped, contained, and cleaned up immediately upon discovery. Absorbent materials or other spill cleanup materials are collected and transported in five-gallon buckets for transfer to 55-gallon drums that are stored in the waste storage area prior to off-site disposal. In the event of a larger spill, empty 55-gallon drums are kept on hand for debris collection and storage prior to off-site disposal.
4. Solid absorbents such as granular clay and industrial supply pads and booms are kept on hand for cleanup of liquid spills or leaks. Drip pads are placed on top of each open oil and lubricant drum in the oil storage room.
5. If any petroleum liquid spill enters, or may enter, a sanitary sewer, ground water, or surface water, Ecology and King County are to be contacted immediately (not to exceed one hour). Written documentation covering the event is to be submitted within 14 days unless otherwise directed by Ecology or King County personnel.
6. Emergency spill containment and cleanup kits are located at outdoor areas where there is a potential for liquid spills. The spill kits are selected for the petroleum materials being handled and the size of the potential spill, and readily accessible to all personnel working in areas where spills are possible.

Prevention of Process Wastewater from Comingling with Stormwater

The process wastewater assessment section describes how the plant collects and uses process wastewater and stormwater. Process wastewater is prohibited from discharge. Stormwater that commingles with process wastewater is considered process wastewater. Therefore, the plant has operational and structural controls to maintain separation and prevent commingled flows if stormwater is discharged via a permitted outfall. The following procedures address process wastewater and prevent commingling with stormwater.

- Process wastewater generation is minimized by not using water for washing equipment in the mill or compressor buildings.

- Cleaning accumulated sediments in building sumps is limited to dry procedures such as sweeping and vacuuming. If needed wash water would be collected by blocking and pumping the affected sump and disposing the wash water in the process wastewater system.

Erosion and Sediment Controls

The entire site is paved, except for a grassy area which borders the parking lot at the front entrance to the site and a graveled area north of the front entrance. There is also unpaved ground beneath the slag and gypsum outdoor storage areas. There are no open soils within the plant and grass cover is sufficient. The slope from the north perimeter to the river is bounded by rip rap. Therefore, there are no needs for erosion and sediment control BMPs for exposed site soils. Note that stockpile erosion prevention is addressed in Appendix C.

Employee Training

Lafarge has an active training program which is further detailed in Section 5.2 of this SWPPP. Training BMPs used at the facility include the following:

- Incorporate information sessions on good housekeeping practices into the facility's employee training program;
- Discuss good housekeeping at employee meetings;
- Train appropriate personnel on handling procedures required to reduce spills and leaks;
- Train appropriate personnel on the operations of the pump system at LS 1, 4 and 8;
- Truck wash operational training is conducted for all cement truck drivers that use the truck wash (non-employees). The truck wash is used by all cement hauling truck drivers to thoroughly clean truck tanks, bumpers, and hitches so that cement material is not tracked beyond the facility boundary onto West Marginal Way SW.

Recordkeeping and Reporting

Recordkeeping BMPs and requirements are outlined in Section 0.

Other Operational Source Controls

The site employs various dust abatement measures including sweeping and the covering or watering of material piles. Other sources of dust are generated from material handling dust collectors located throughout the facility that are regulated by the Title V Operating Permit. When material is transferred from barges or ships, a minimal amount of water may be needed for dust control. Offloading and dust control are monitored by the responsible operators.

Standard Operating Procedures (SOPs) for transfer of lignin from barge to the storage tank, for truck loading and for rail car transloading will be observed.

4.2 Structural Source Control BMPs

A variety of structural controls exist at the facility that provide the means to contain, control, divert, and/or treat runoff flow from all areas that may contact significant materials. This section describes the location, function, and design of the structural controls used for stormwater management.

Material Stockpiles

The site uses several large stockpiles of raw material sources during production activities, these piles are generally stored outside and exposed to rainfall.

- Bunkers are used to contain the raw material stock piles and designate a boundary for all raw material stockpiles on three sides. Due to the size and slope of these stockpiles, they cannot be covered safely during normal operations.

Tanks and other Facilities Exposed to Rainfall

Secondary containment dikes prevent runoff from entering areas potentially subject to spills and leaks of liquid materials stored outside. These controls are provided at the following locations as shown on Figure 2:

- The empty, decontaminated and decommissioned tank (F1, Basin 4); and
- Diesel fuel tank (180-gallon) for emergency generator (F2, Basin 8).
- The outdoor grinding aid tank (F3 on Figure 2).

Rainfall accumulated within secondary containment structures will be visually inspected for oil sheen and tested for pH. If results are acceptable, the stormwater will be pumped out and transferred to the stormwater drainage system. If there is sheen or the pH does

not fall within the permit limits, the water will be collected and transferred to the process wastewater system (e.g., the WWST).

The municipal waste dumpster is an enclosed trash compactor. Empty and filled waste drums are stored under a large roofed area adjacent to the oil storage room (Figure 2). Other significant materials are stored either indoors or beneath covered areas whenever practical. The Environmental Department personnel will identify where coverings are required for on-going and future plant activities and will inspect the use of these coverings.

Runoff Controls

The majority of the facility perimeter has structural drainage controls to route flows to one of the four lift stations. These controls include:

- Curbing along much of the north perimeter;
- Trench drains along the east wharf;
- Positive slopes and curbing along the south perimeter (abutting Alaska Marine Lines and Chemithon facilities); and
- Positive slopes and curbing along the west perimeter (parking lot, entrance and Basin 1).

Approximately 80 linear feet of the entry driveway from West Marginal Way SW has a negative slope which allows offsite run-on into the facility from the street. During heavy rainfall events, the offsite run-on can be significant. This offsite run-on source may need further evaluation.

In addition, other areas of the plant contain the following structural controls to contain runoff in the appropriate drainage areas:

- Truck wash area (Basin 1C) is segregated from Basin 1B by trench drains.

Transloading

The existing “dribble chute” apron on the outboard end of the waterfront crane will be deployed to prevent the release of material into the river or into Basin 12. The dribble chute will collect material dripped from the clamshell, including rainfall and route it back into the barge.

Trucks or rail cars will have sealed liners to prevent spillage if needed.

Temporary cubing or containment will be set up around the waterfront crane operating area prior to starting material transfer. The temporary containment measures will

collect drainage around the crane operating area and pumps will route it into the vault. These measures will isolate the drainage area around the crane operating area during transloading to prevent discharges to the surrounding stormwater collection system.

Signs and Labels

Signs and labels are used to identify the contents of containers used for significant materials. The Environmental Department or any other housekeeping team member periodically inspects for the presence of legible signs and labels and will record the findings and results of any corrective actions.

Safeguards

The need for safeguards, such as safety warning tape, physical barriers, or other means of protection around high risk areas where significant materials are stored, will be reviewed by various employees during work area inspections. Any member of the site's housekeeping and safety teams are trained to identify and maintain these safeguards.

Security Systems

The site is staffed 24 hours per day, 6 days per week. The site perimeter is completely fenced with locked gates. Entry is monitored by personnel working in the vicinity and via cameras in the Control Room. A security contractor monitors the facility when there is no operation.

Pump controls for fuel underground storage tanks are locked when not in use and are located in areas accessible only to authorized personnel. Plant lighting is designed to provide safe working conditions and permit observation and inspection of material storage areas and machinery. Security facilities and procedures are in compliance with WAC 173-303-3 10 and the Homeland Security regulations under 33 CFR 105.

4.3 Treatment BMPs

The Lafarge Seattle facility employs several stormwater treatment BMPs, several of which are integrated in the stormwater capture and recycling system as described below.

The containment vault and Tank 4 provide a total detention volume of approximately 1.7M gallons. These structures would be expected to remove the coarser sand and silt fractions of suspended solids. Accumulated sediments are periodically removed during maintenance, typically once annually.

The stormwater electro-coagulation system was designed to condition stormwater prior to discharge and is operated to provide water quality treatment of stormwater entering the Duwamish River from the site. The system is located at the South end of the Compressor building and Tank 1, and the effluent from the treatment system is discharged via outfall 008. The system is comprised of two redundant systems (A and B) each capable of treating up to 150 gallons per minute.

To mitigate ongoing operational hazards or out of specification treatment, the system is controlled by a programmable logic controller (PLC). The PLC monitors the equipment's electrical systems, flow status and pumps. It is equipped with a number of logical fail safes to automatically shut down the equipment in potentially unsafe or out of specification operating conditions. The system monitors the pH and Turbidity of the effluent and will make adjustments to meet the pH and Turbidity permitted discharge limits. If the values of either pH or Turbidity exceed the programmed control limits, the system will go into a recirculation mode to prevent discharge of effluent which is out of compliance with the permit.

The treatment system is comprised of three primary unit operations: pH adjustment, electro-coagulation, and a sand bed filter (if required to meet Turbidity).

pH adjustment – Due to the presence of numerous calcium and carbonate raw materials, the stormwater at the site may have an elevated pH. The system uses carbon dioxide to lower the pH of the water. An online instrument is used to monitor the pH and carbon dioxide is fed into the stormwater stream prior to electro-coagulation to balance the pH.

Electro-coagulation – The stormwater is conditioned with salt addition to increase the conductivity before being passed through a series of electro-coagulation cells. Solids are separated in a series of 4 tanks.

5.0 Implementation

This section presents the BMPs recently completed and the implementation plan for new or updated BMPs, including a schedule and a training plan.

The Environmental Department holds overall responsibility for development of the SWPPP, implementation of selected BMPs, weekly inspections, stormwater monitoring, employee training, and SWPPP evaluation and revision. The P2 Team described in Section 2.0 is responsible for implementing various elements of the SWPPP. The Production Manager ensures that all required training is scheduled and presented.

Table 9. BMP Implementation Schedule

Item	BMP Description	Completion Date
1	Install updated stormwater treatment system	January 2011
2	Provide secondary containment for grinding aid tank	June 2011
3	Repair LS 8 curbing to prevent stormwater run-in	June 2011
4	Install flange blind between Tanks 3 and 4 drains	June 2010
5	Transfer pump seals: cease domestic water use and disconnect supply lines	June 2010
6	Install permanent connection from x-ray unit to sewer	November 2010
7	Permanently cap/plug outfall 001	November 2010
8	Permanently cap/plug outfall 004	November 2010

5.1 Implementation of Appropriate Controls

BMPs described in the SWPPP are currently implemented at the Plant.

5.2 Employee Training Program

Employee training programs have been established to inform all personnel about the components and goals of the SWPPP. The Environmental Department will perform the annual stormwater pollution prevention training. Training methods include a review of appropriate plan sections and a demonstration in which proper materials handling procedures are explained at each of the identified drainage areas.

Employees, including temporary and contractor personnel, will be informed at the "general awareness level" of Lafarge procedures for stormwater pollution prevention, procedures, and spill notification requirements or will be supervised by an employee trained in the requirements of this plan.

Training will occur once annually and will cover a summary of this document, including:

- Stormwater pollution laws and regulations;
- Lafarge policies pertinent to stormwater pollution prevention, including BMPs;
- The SWPPP;
- The Stormwater O&M Manual;
- The SPCC Plan;
- Inspection requirements;
- Proper operation and maintenance of all equipment;
- Designated roles and responsibilities of facility employees; and
- Relevant environmental and safety information.

6 Record Keeping and Internal Reporting

The Environmental Department is responsible for maintaining all completed reports, inspection forms, monitoring data, and other records generated as a result of this SWPPP for a minimum of three years. These records include the following items:

1. NPDES permit, Fact Sheet and permit modifications;
2. King County Major Discharge Authorization;
3. SWPPP and revisions and amendments;
4. Stormwater O&M Manual (Appendix A);
5. Stormwater SOPs;
6. Inspection reports;
7. Records of spills and leaks;
8. Maintenance records;
9. Laboratory analysis reports for stormwater samples; and
10. DMRs.

Information reported for spills and leaks includes date and time of the occurrence, weather conditions, location, cause, immediate actions taken, resulting environmental problems, and follow up actions taken to prevent reoccurrence.

7 SWPPP Revisions

Changes in conditions and operations at the facility are regularly evaluated. When necessary, the SWPPP is revised based on operational changes. The Environmental Department holds responsibility for revising the SWPPP as needed. The SWPPP must be updated and amended whenever:

- There is a change in design, construction, operation, or maintenance which causes the SWPPP to be less effective; and
- The description of potential pollutant sources or the pollution prevention measures and controls identified in the current SWPPP are found to be inadequate.

Other reasons that may warrant updating the SWPPP include:

- When routine inspections or compliance evaluations reveal deficiencies in a BMP;
- When an authorized agency requests that the SWPPP be updated to reflect changes affecting stormwater management at the facility;
- When inspection by a local, state, or federal official determines that modifications to the SWPPP are necessary; and
- If there is a spill at the facility or an unauthorized discharge from the facility.

Per NPDES Permit Special Condition S10.E.2, the proposed modifications to the SWPPP shall be submitted to Ecology at least 30 days before implementation unless Ecology approves immediate implementation. The SWPPP, reports, and amendment submittals shall be signed in accordance with NPDES Permit General Condition G1. SWPPP amendments will be maintained in an “Amended SWPPP” file at the facility. A record of these updates with the revision date and a summary sheet explaining the revisions made will be kept on file by the Environmental Department.

In addition, NPDES Permit Condition S4.A.1 requires that the Stormwater O&M Manual (Appendix A) be reviewed at least annually with the review confirmed by a letter to Ecology. Substantial changes or updates to the Stormwater O&M Manual shall be submitted to Ecology whenever they are incorporated into the manual.

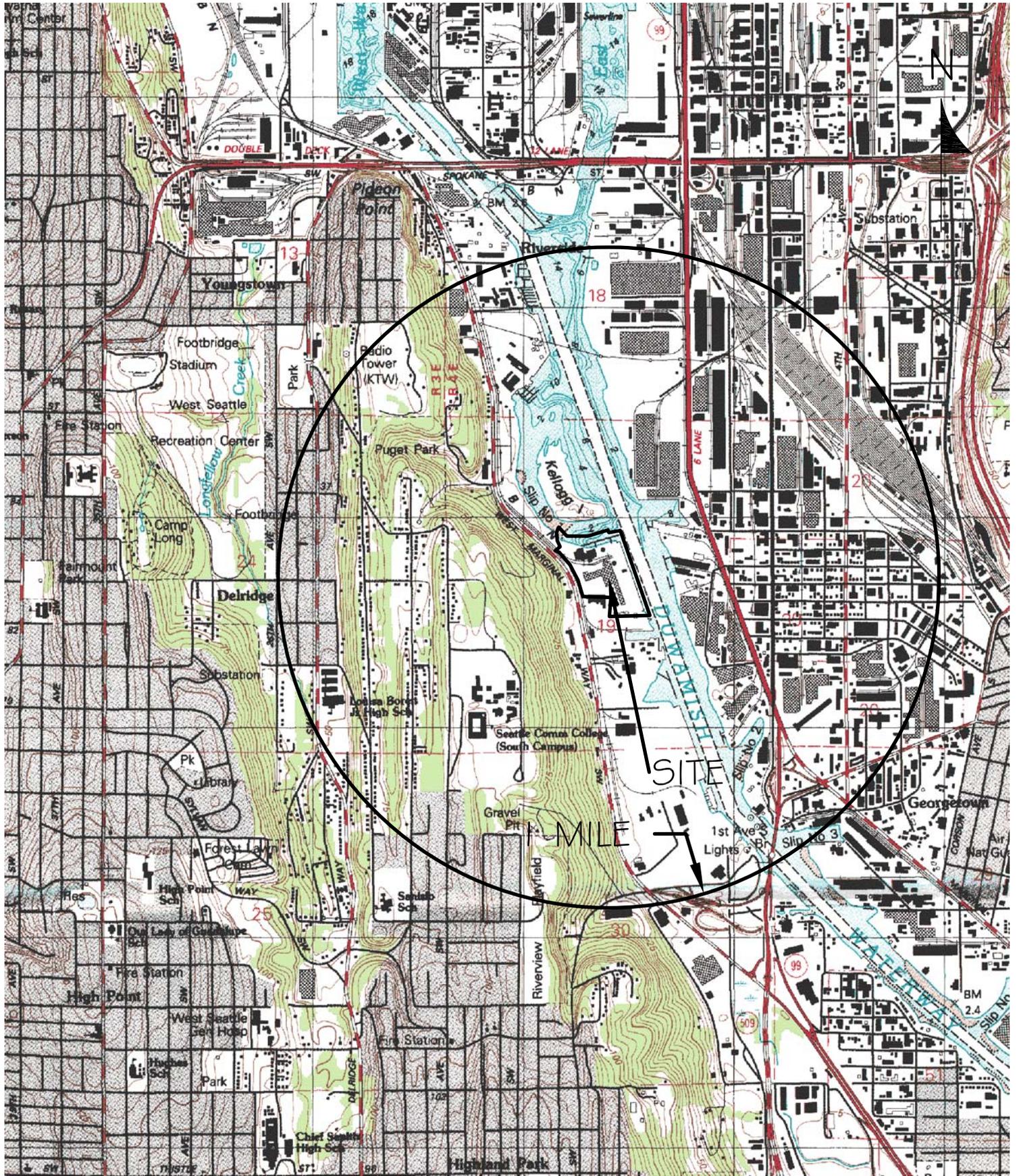
The Production/Shipping Coordinator monitors changes in plant operations that may affect the SWPPP. The Maintenance Planner monitors maintenance activities that may affect the SWPPP. The Environmental Department monitors changes to other company environmental plans that might change an area incorporated into this plan and

determines if the Plan needs to be revised because of any of these activities and implements changes as required. Once revised, the SWPPP is reviewed by appropriate staff and presented to the Operations Manager for approval and signature.

8 References

- Aquarius Environmental, LLC (Aquarius) 2010, Stormwater Treatment Engineering Report, Lafarge North America, Seattle Plant. June 2010
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FIGURES

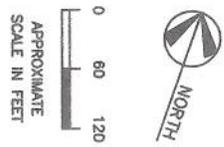
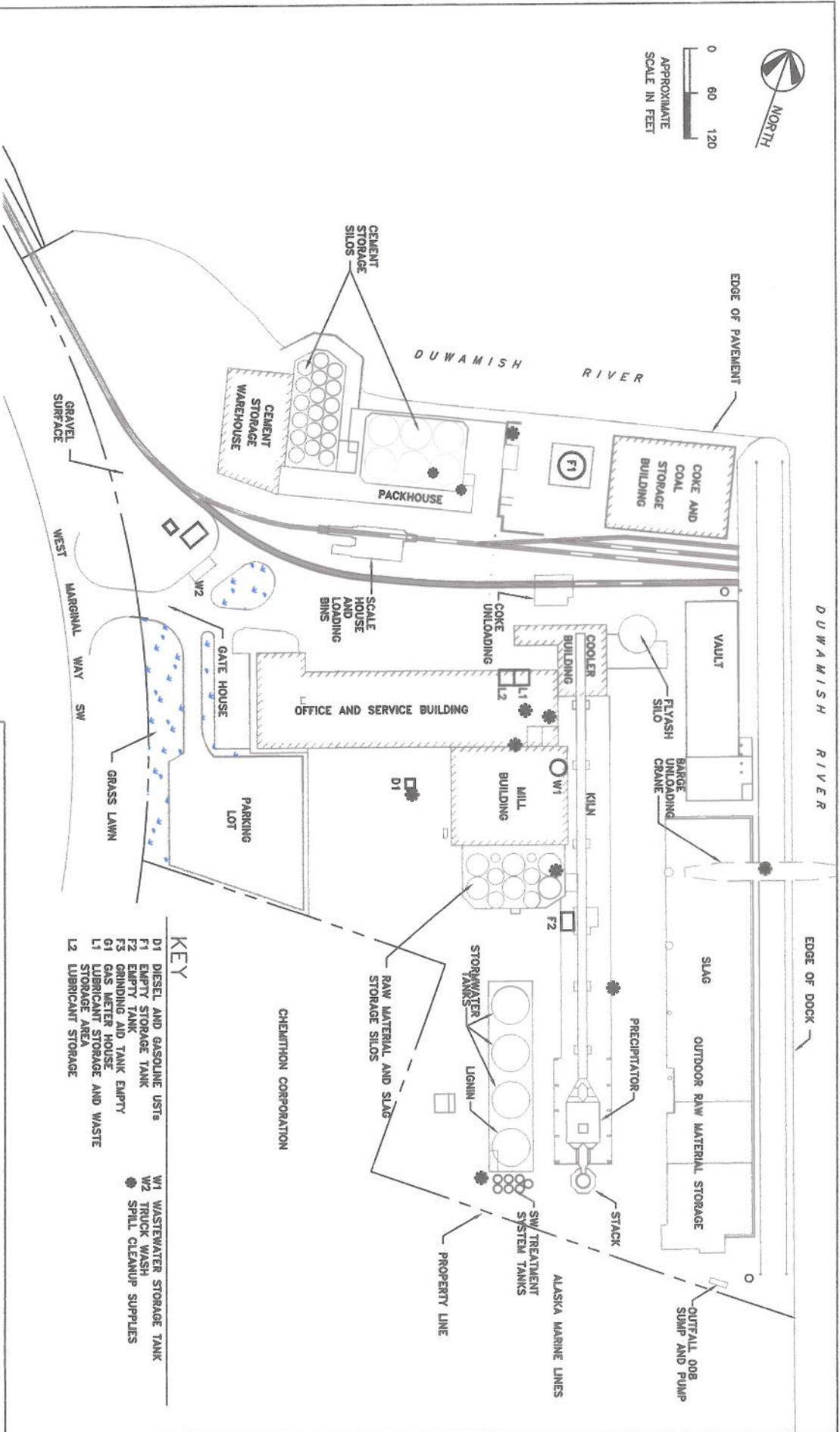


SHEET 1 1 OF 1	REVISIONS		
	Rev	Date	Description

FIGURE 1
VICINITY MAP
LAFARGE NORTH AMERICA

Designed:	DS	 www.aquariusenv.com
Drawn:	DEK	
Checked:	DEK	
Date:	03 09 10	
Scale:	1" = 2000'	

FIGURE 2



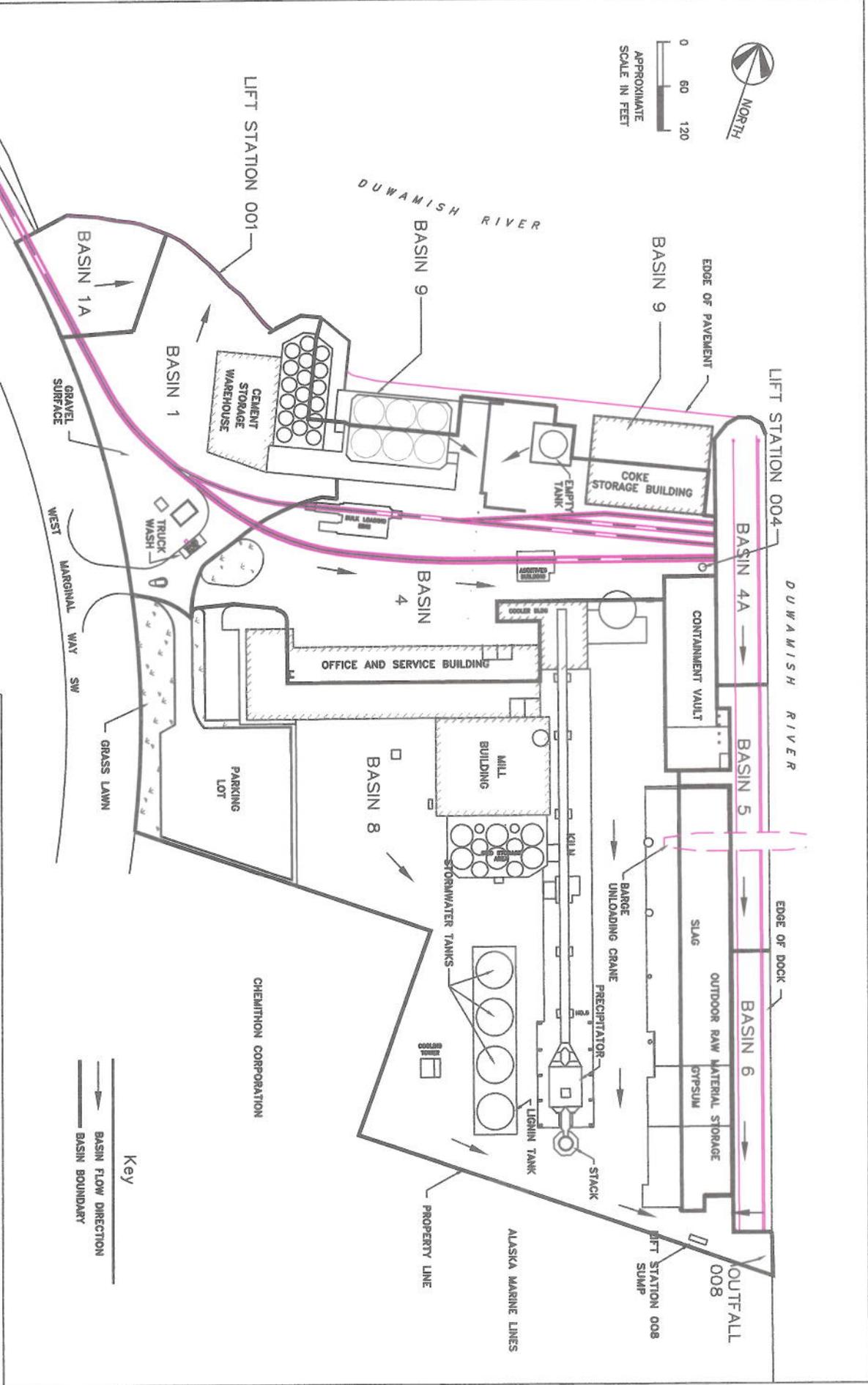
- KEY**
- D1 DIESEL AND GASOLINE USTs
 - F1 EMPTY STORAGE TANK
 - F2 EMPTY TANK
 - F3 GRINDING AID TANK EMPTY
 - G1 GAS METER HOUSE
 - L1 LUBRICANT STORAGE AND WASTE STORAGE AREA
 - L2 LUBRICANT STORAGE
 - W1 WASTEWATER STORAGE TANK
 - W2 TRUCK WASH
 - SPILL CLEANUP SUPPLIES

CHEMTRON CORPORATION



FACILITY SITE PLAN
SWPPP

Figure
SEA 781 S 050 SWPPP



STORMWATER POLLUTION PREVENTION
 PLAN (SWPPP)
 FACILITY DRAINAGE MAP
 SEA 781 S 061

APPENDIX A

**Stormwater Operations and Maintenance
(O&M) Manual**



**STORMWATER OPERATIONS &
MAINTENANCE MANUAL**

DECEMBER 2011

**5400 WEST MARGINAL WAY SW
SEATTLE, WASHINGTON**

PREPARED FOR

Washington State Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

Table of Contents

Section	Description	Page No.
1.0	Introduction and Protocols	1
1.1	Background	2
1.2	Treatment System Operating Plan (TSOP)	2
1.3	Stormwater Management System.....	3
1.3	Safety 5	
1.4	Procedure for Stormwater Management System Upset or Bypass.....	5
1.5	Stormwater Management System Operational Objectives and Protocols.....	5
1.5.1	Stormwater Management Protocol – Routine Operations.....	5
1.6	Stormwater Management System Maintenance.....	5
1.7	Stormwater Management System Monitoring and Discharge Event Sampling.....	6
1.7.1	Stormwater Outfall Discharges for Emergency Bypass or System Capacity Exceedances.....	7
1.7.5	Sampling, Handling, Labeling and Chain of Custody Requirements.....	7
1.7.6	Discharge Monitoring Reports (DMR).....	9
2.0	Stormwater Treatment System Description	10
2.1	Basic Startup/Shutdown Procedures	11
2.2	Treatment System Inspection and Maintenance.....	11

Tables

Table	Description
1	Stormwater Holding Facilities
2	Stormwater Basin Area Identification
3	NPDES Permit Monitoring Schedule for Stormwater Outfall Discharges

Figures

Figure	Description
1	Vicinity Map
2	Facility Site Map
3	Water Handling Facilities Single Line Diagram

Revisions

The following list contains the dates and descriptions of amendments made to the Stormwater Operations and Maintenance (O&M) Manual.

2006	First Issue per NPDES permit Requirement
February 2008	Re-issued
December 2009	Updates per Ecology Agreed Order No. 7207. Updated to include discharge from stormwater vault to sewer per King County permit 7831-01
April 2009	Updated to include discharge from truck wash to sewer per King County permit 7831-02
June 2010	Updated for re-issue with SWPPP revision.
April 2011	Updated for re-issue with new NPDES permit requirement
December 2011	Updated for NPDES permit requirement

1.0 Introduction and Protocols

This Stormwater Operations and Maintenance (O&M) Manual was developed for the Lafarge Seattle Plant located at 5400 West Marginal Way SW in Seattle, Washington (Figure 1). This O&M Manual details action items and schedules for operational and maintenance items to be performed by Lafarge to manage the site's stormwater in a manner conforming to applicable permits, local, federal and state regulations. This O&M manual accompanies the Stormwater Pollution Prevention Plan (SWPPP), which describes the facility, operations, activities, drainage systems, potential pollutions sources and stormwater best management practices (BMPs). Stormwater discharges from the facility are covered under NPDES Permit No. WA-0002232 issued Dec 30, 2010.

Facility name: Lafarge

Facility location: 5400 West Marginal Way SW, Seattle, WA 98106

Name and address of owner: Lafarge North America, Inc.
12950 Worldgate Dr., Suite 600, Herndon, VA 20170

Pollution Prevention Team

Members	Responsibilities
Leader: Quality/Environmental Coordinator	<ul style="list-style-type: none"> - Overall responsibility for the SWPPP - Determines changes required to SWPPP due to operational or BMP changes, updates and issues the SWPPP - Prepares and submits discharge monitoring reports (DMRs) to Ecology - Performs inspections - Keeps pertinent records - Informs team of all general permit and pollution prevention plan requirements - Coordinates sampling - Assists Production Manager with storage pile management and associated BMPs - Responsible for monitoring materials stored on-site
Member: Operations Manager	<ul style="list-style-type: none"> - Maintains clear line of communication with plant management - Holds SWPPP signatory responsibility
Member: Maintenance Coordinator	<ul style="list-style-type: none"> - Determines changes required to SWPPP due to maintenance changes - Assures proper maintenance is completed.
Member: Production Coordinator	<ul style="list-style-type: none"> - Conducts inspections - Conducts site evaluations - Suggests revisions to SWPPP as needed - Coordinates employee training program - Informs Environmental Department of outfall discharges to facilitate required sampling - Manages storage piles and associated BMPs

1.1 Background

The NPDES permit, issued by the Washington State Department of Ecology January 1, 2011 permits stormwater discharges via outfall 008. Process wastewater and non-contact cooling water are prohibited from discharge, and are collected and disposed of via sanitary sewer. The NPDES permit requires Lafarge to review and update the O&M Manual annually.

1.2 Treatment System Operating Plan (TSOP)

Stormwater is stored in either the containment vault and/or the Tanks 2, 3, or 4 depending on use of the vault area for transloading materials. Stormwater is transferred to Tank 4 from the other storage locations and fed to the treatment system from Tank 4. The treatment system consists of two redundant systems (Side A and Side B) which both contain a brine pump, CO2 gas addition, electrolytic cells, in-line initial pH meter, one dirty tank, two clean tanks, in-line final pH meter, in-line final turbidity meter, and both systems share a sludge tank and a sand bed filter. Salt and CO2 are added prior to the electrolytic cells to give the proper conductivity

and pH for treatment of the water. The water then goes into a series of four tanks where flocculation and separation occur. The clean water is continuously measured for pH and turbidity prior to being discharged. A sand bed filter system is in place if needed to further reduce the turbidity. The system is automated through the plant Process Logic Control (PLC) so that if either the final pH or turbidity goes beyond set limits, the water is no longer discharged but is put into a bypass status and sent back through the treatment system. Solids are collected in the bottom of the fourth tank and removed on an as-needed basis.

The stormwater collection vaults and tanks on site have at least 1.7 million gallons capacity. This is sufficient to hold a 10-yr, 24-hour rainfall event (2.9 inches). It is the intent of Lafarge to run the treatment system to maintain maximum capacity for stormwater collection.

There are no known maintenance or repair activities that should affect the volume or character of the wastes discharged to the stormwater treatment system. If any facility maintenance which might require interruption of stormwater treatment and degrade effluent quality is foreseen, the activities will be scheduled during non-critical water quality periods and carried out in a manner approved by Ecology. Stormwater system maintenance procedures, such as storm drain and line cleaning, which contribute to the generation of process wastewater, will be conducted in such a way so that the process wastewater is collected and discharged through the sanitary sewer in accordance with the King County Wastewater Discharge Authorization No. 4204.

1.3 Stormwater Management System

The facility's stormwater drainage area is approximately 19.4 acres¹. Drainage basins were defined by pavement slopes and stormwater conveyance piping based on the 2010 Engineering Report. Basins 9A, 9B, and 12 have no stormwater outfalls. Basin 1C drains the truck wash and runoff is pumped to the sanitary sewer according to the King County Discharge Authorization No. 4204-01 effective May 1, 2011. Offsite stormwater run-on into the facility can occur at the entrance from West Marginal Way SW; the area of run-on has not been estimated but would be expected to contribute stormwater to basins 4 and 8.

During transloading projects involving the containment vault area, the stormwater holding facilities will be transferred to Tanks 2, 3 and 4 which provide an equivalent volume and are already plumbed into the current stormwater management system. The plant's existing stormwater treatment system will not be affected by material transfer. Stormwater generated from transfer work, i.e., rainfall on to the dredged materials, vault, and the material handling area around the northwest corner of the vault will be collected and shipped off-site with the transloaded materials, or disposed of properly off-site.

Lift stations 1, 4, and 8 transfer stormwater into the transfer sump which then pumps the water to either Tank 3 or Tank 4.

¹ Approximately 0.62 acre is landscaped or pervious surfaces for a net impervious area of 18.8 acres.

Table 1
Stormwater Holding Facilities

Facility		Approximate Working Volume (gal)	Equivalent Rainfall Depth at the Site (inches)
Vault		1,100,000	2.00
Tank 4		630,000	1.20
	Subtotal	1,730,000	3.20
Tank 2		630,000	1.20
Tank 3		630,000	1.20
Tank 4		630,000	1.20
	Subtotal	1,890,000	3.60

Table 2
Stormwater Basin Area Identification

Outfall	Drainage Basins	Activities, Buildings and Materials
008	1, 1A, 1B, 3, 4, 4A, 5,6,8, 11	<ul style="list-style-type: none"> • Main office building • Offsite run-on from West Marginal Way SW • Coal/Coke storage building • Rail spur • Scale House and Loading Bins • Main office building roof (north side) • Additives building • North portion of east wharf west of crane rail (basin 4A) • Blast furnace slag storage (basin 1A) • Rail spur (basin 1B) • Cement storage warehouse • Western portion of cement storage silos • Truck wash segregated in basin 1C with pump to sewer • Employee parking lot and landscaping • Mill building roof • Compressor building roof • Kiln roof • USTs for fuel • Raw material piles • Recycling and garbage dumpsters • South portion of east wharf west of crane rail (Basins 5 and 6)

		<ul style="list-style-type: none">• Stormwater vault (Basin 11)• Heavy equipment movement for managing material piles• Cooling tower
--	--	--

1.3 Safety

It is the responsibility of the Seattle Plant to follow all safety requirements while operating and maintaining stormwater management systems. All stormwater O&M work must be performed in accordance with current Mine Safety and Health Administration (MSHA) and Lafarge safety policies and procedures.

1.4 Procedure for Stormwater Management System Upset or Bypass

In the event of upset or bypass of the stormwater system, the site emergency contacts shall be notified upon discovery. The Maintenance Department shall perform the initial assessment of the upset or failure and initiate corrective action as soon as possible. The Environmental Department is responsible for notifying Ecology in the event the upset or failure results in a bypass of untreated stormwater to the Duwamish River.

1.5 Stormwater Management System Operational Objectives and Protocols

The objective of the Lafarge stormwater management system is to collect and treat the facility's stormwater to meet the permit requirements.

1.5.1 Stormwater Management Protocol – Routine Operations

- When the containment vault is being used for stormwater collection:
 - Stormwater will be transferred from the vault to Tank 4. Both the vault and Tank 4 are used for solids settling prior to entering the treatment system.
 - The stormwater treatment system will be run whenever there is adequate water in Tank 4 to feed the system so that maximum space is available for stormwater collecting.
- When the containment vault is being used for material transloading:
 - Stormwater will be collected in Tanks 2, 3 and 4 for solids settling prior to entering the treatment system.
 - The stormwater treatment system will be run whenever there is adequate water in Tank 3 or 4 to feed the system so that maximum space is available for stormwater collecting.

1.6 Stormwater Management System Maintenance

Maintenance of the on-site storm sewer system is conducted as necessary to prevent interruption of stormwater flow from areas of the site to the containment vault or Tank 4. Best management practices (BMPs) are employed whenever possible to prevent solids from entering catch basins and the vault. Site specific BMPs are discussed in detail in the facility's Stormwater Pollution Prevention Plan (SWPPP). Solids buildup reduces the overall stormwater holding capacity of the

system. The vault is dredged of solids annually, if necessary, and catch basins and storm sewer lines are flushed as needed. The solids are disposed of off site.

Housekeeping improvements, plumbing upgrades, and the implementation of several published BMPs have significantly reduced the amount of solids entering the system. The site is cleaned at least weekly with the facility street sweeper. Catch basin covers are being employed to filter solids from runoff near material bunkers. Management and oversight of the outdoor storage of raw materials continues to be refined and improved.

1.7 Stormwater Management System Monitoring and Discharge Event Sampling

Stormwater monitoring for outfall 008 consists of completing the sampling and visual inspections required per NPDES permit conditions S2. The sampling and analysis methods are described below. Grab sampling must be performed twice per month when discharging, while the visual inspections must be completed daily while discharging. The Contaminants of Concern are to be sampled twice per year: once in the summer or early fall, and once in winter. Table 5 summarizes the sampling parameters and schedule. Sample results are reported on DMRs submitted to Ecology per NPDES permit condition S3.

**Table 3
NPDES Permit Monitoring Schedule for Stormwater Outfall Discharges**

Parameter	Units	Sample Points	Minimum Sampling Frequency	Sample Type
Flow	GPD	Final Effluent	Twice/month	Continuous
Total Suspended Solid (TSS) of final effluent	mg/L	Final Effluent	Twice/month	Grab
Turbidity, Final Effluent	NTU	Final Effluent	Twice/month	Grab
Oil and Grease	Visible sheen	Receiving water	Daily when discharging	Visual Observation
Oil and Grease	mg/L	Final Effluent	Twice/month	Grab
pH	Standard units	Final Effluent	Twice/month	Grab
Copper	(µg/L)	Final Effluent	Twice/month	Grab
Lead	(µg/L)	Final Effluent	Twice/month	Grab
Zinc	(µg/L)	Final Effluent	Twice/month	Grab
Contaminants of Concern: Phthalate Comp PCB Comp PAH Comp Antimony Arsenic Beryllium Cadmium	(µg/L)	Final Effluent	Twice/year	Grab

Chromium (III)				
Chromium (VI)				
Mercury				
Nickel				
Selenium				
Silver				
Thallium				

1.7.1 Stormwater Outfall Discharges for Emergency Bypass or System Capacity Exceedances

In the event of a discharge to the river, stormwater grab samples shall be collected at the discharge side of the weir for each lift station experiencing a discharge to a respective permitted outfall (001, 004, or 008). Analytical and other discharge specific data requirements are outlined in Table 5.

1.7.5 Sampling, Handling, Labeling and Chain of Custody Requirements

Sample Collection - Manual (Grab) Sampling

Wearing clean nitrile gloves and use a pre-cleaned container to collect stormwater grab samples at each sampling location and transfer them to the sample containers provided by the outside laboratory. Fill bottles completely and leave no head space. Do not overfill bottles with preservative. Composite samples are not required.

Sample Handling

Following sample collection, secure bottle lids to prevent leakage and loss of sample. Complete sample bottle labels using only waterproof ink. After completion, use waterproof labels or cover the labels with clear tape for protection from moisture. Place sample bottles in an insulated cooler and surround each bottle with ziploc bags filled with ice to chill samples below 4°C and to prevent breakage. Complete the laboratory chain-of-custody using the sample nomenclature below and using military time (i.e., 7 pm = 1900 hours) for all entries. Deliver the samples to the analytical laboratory within the respective sample holding times. All samples must be delivered under strict chain-of-custody procedures, with sign-off of the samples by the field crew and signed acceptance of the samples by the laboratory personnel.

Discrete Sample Naming System

Grab samples will be labeled by the sampling personnel according to the following identification system for delivery to the lab.

(Site Code)(Location Code)(6-Digit Date)(4-Digit Time)(Sampler Location)

Site Code

The site code will be “LF” for “Lafarge”

Location Code

The following location codes are to be used.

“OF8” will be for “Outfall 008”

Six-Digit Date

The date the sampling began for a single event (date of earliest discrete sample) will be provided by the sampling personnel. The date will be listed as a string of six digits.

January 31, 2007 will be listed as 013107

Four-Digit Time

The time sample collection began will be denoted according to a 24-hour time clock with the format HH:MM.

1:36 pm will be denoted as 13:36

Example for Grab Sample

Stormwater discharged to the sanitary sewer from each of the two discharge points collected on November 30, 2009 at 1:36pm, filter effluent.

LF-SWR01-113009-13:36

LF-SWR02-113009-13:36

Sampling and analytical methods used to meet the monitoring requirements of the NPDES permit must confirm to the latest revision of the *Guidelines for Establishing Test Procedures for the Analyses of Pollutants* contained in 40 CFR Part 136. All laboratory analytical data must be supplied by a laboratory accredited by Ecology under WAC 173-50. Field or onsite measurements of flow, temperature, settleable solids, conductivity, pH, turbidity and internal process control parameters are exempt from this requirement.

The following information shall be included in chains of custody and laboratory reports and kept with the SWPPP and submitted to Ecology upon requested:

- Sampling date
- Sample location
- Date of analysis
- Parameter name
- CAS number
- Analytical method/number
- Method Detection Limit (MDL)
- Laboratory Practical Quantification Limit (PQL)
- Reporting units
- Concentration detected

For all other measurements and samples taken, record the following:

- Date, exact place, method, and time of sample or measurement

- Individual who performed sampling or measurement
- Date of analysis
- Individual who performed analysis
- Analytical techniques or methods used
- Results of all analyses

Samples should be sent to a laboratory registered and accredited under the provisions of Accreditation of Environmental Laboratories, Chapter 173-50 WAC.

Copies of all records and reports are to be kept with the SWPPP for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants or when requested by the Department of Ecology.

1.7.6 Discharge Monitoring Reports (DMR)

Discharge monitoring reports (DMRs) must be submitted no later than the 15th day of the month following the completed monitoring period for each quarter. Summarize, report, and submit monitoring data obtained during the previous three (3) months on the discharge monitoring report forms provided by Ecology. DMRs must be sent to the following address:

Water Quality Permit Coordinator
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

If there was no discharge event for the month for a particular outfall, check the “no discharge” box (if provided) and also enter “NO DISCHARGE” in place of the monitoring results. Copies of the DMRs will be kept in the SWPPP notebook as well as copies of all analytical data, inspection logs, the permit, Ecology Orders and related documents.

2.0 Stormwater Treatment System Description

The stormwater electro-coagulation system was designed to condition stormwater prior to discharge and is operated to provide water quality treatment of stormwater entering the Duwamish River from the site. The system is located at the South end of the Compressor building and Tank 1, and the effluent from the treatment system is discharged via outfall 008. The system is comprised of two redundant systems (A and B) each capable of treating up to 150 gallons per minute.

To mitigate ongoing operational hazards or out of specification treatment, the system is controlled by a programmable logic controller (PLC). The PLC monitors the equipment's electrical systems, flow status and pumps. It is equipped with a number of logical fail safes to automatically shut down the equipment in potentially unsafe or out of specification operating conditions. The system monitors the pH and Turbidity of the effluent and will make adjustments to meet the pH and Turbidity permitted discharge limits. If the values of either pH or Turbidity exceed the programmed control limits, the system will go into a recirculation mode to prevent discharge of effluent which is out of compliance with the permit.

The treatment system is comprised of three primary unit operations: pH adjustment, electro-coagulation, and a sand bed filter (if required to meet Turbidity).

pH adjustment – Due to the presence of numerous calcium and carbonate raw materials, the stormwater at the site may have an elevated pH. The system uses carbon dioxide to lower the pH of the water. An online instrument is used to monitor the pH and carbon dioxide is fed into the stormwater stream prior to electro-coagulation to balance the pH.

Electro-coagulation – The stormwater is conditioned with salt addition to increase the conductivity before being passed through a series of electro-coagulation cells. Solids are separated in a series of 4 tanks.

Filtration – A sand bed filtration system is used if the turbidity limit is not able to be met with the electro-coagulation.

2.1 Basic Startup/Shutdown Procedures

System Start Up

1. From the HMI control, click on the START icon for either System A or System B.

Shut Down

1. From the HMI control, click on the STOP icon for either System A or System B.

2.2 Treatment System Inspection and Maintenance

The treatment system is inspected weekly at a minimum during the routine NPDES inspection. When operating, the treatment system should be inspected as follows.

Daily

Daily PM on Stormwater treatment center

1. Fill sludge bags to the top and ensure that they are all weeping off
2. Fill salt container to just before level float in the black container
3. Inspect all pipes for leaks
4. Log
 - a. Hours on cells
 - System A _____
 - System B _____
 - b. Brine Pump Speed
 - System A _____
 - System B _____
 - c. Volts Approximate
 - System A _____
 - System B _____
 - d. Turbidity
 - System A _____
 - System B _____
 - e. PH
 - System A _____
 - System B _____
 - f. CO2 tanks
 - Empty _____
 - Full _____

Weekly

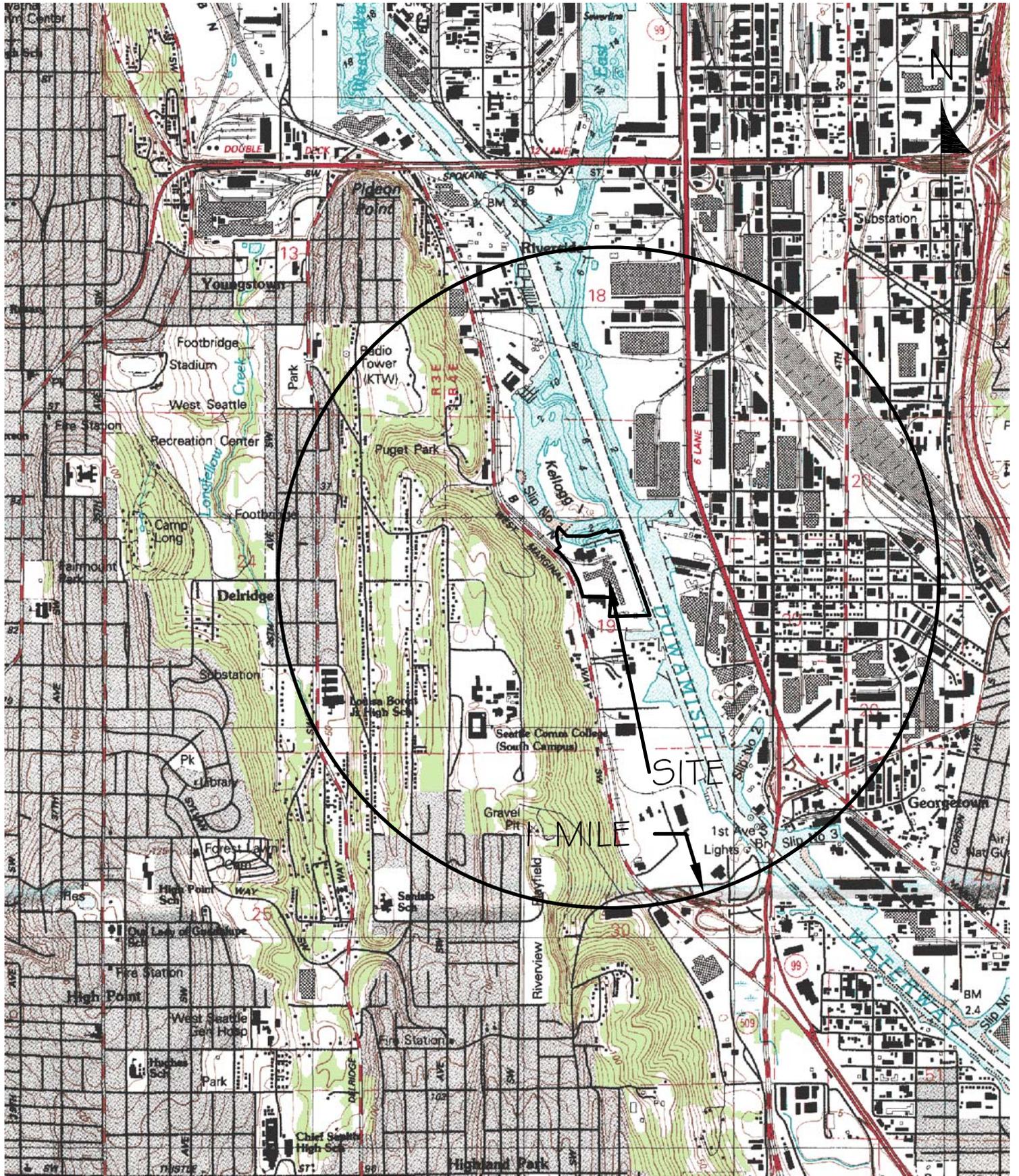
- Check sediment levels in all sumps and tanks
- Conduct effluent sampling as required by permit
- Inspect all equipment for wear and tear, conduct maintenance as needed

Minimum Routine Maintenance

1. pH system - pH probes should be calibrated on a monthly basis.
2. Turbidity system – calibrate on a monthly basis.

All other components, pumps and equipment should be inspected and maintained per the manufacturer's recommendations outlined in the service manuals kept on file by the Maintenance Department.

Figures

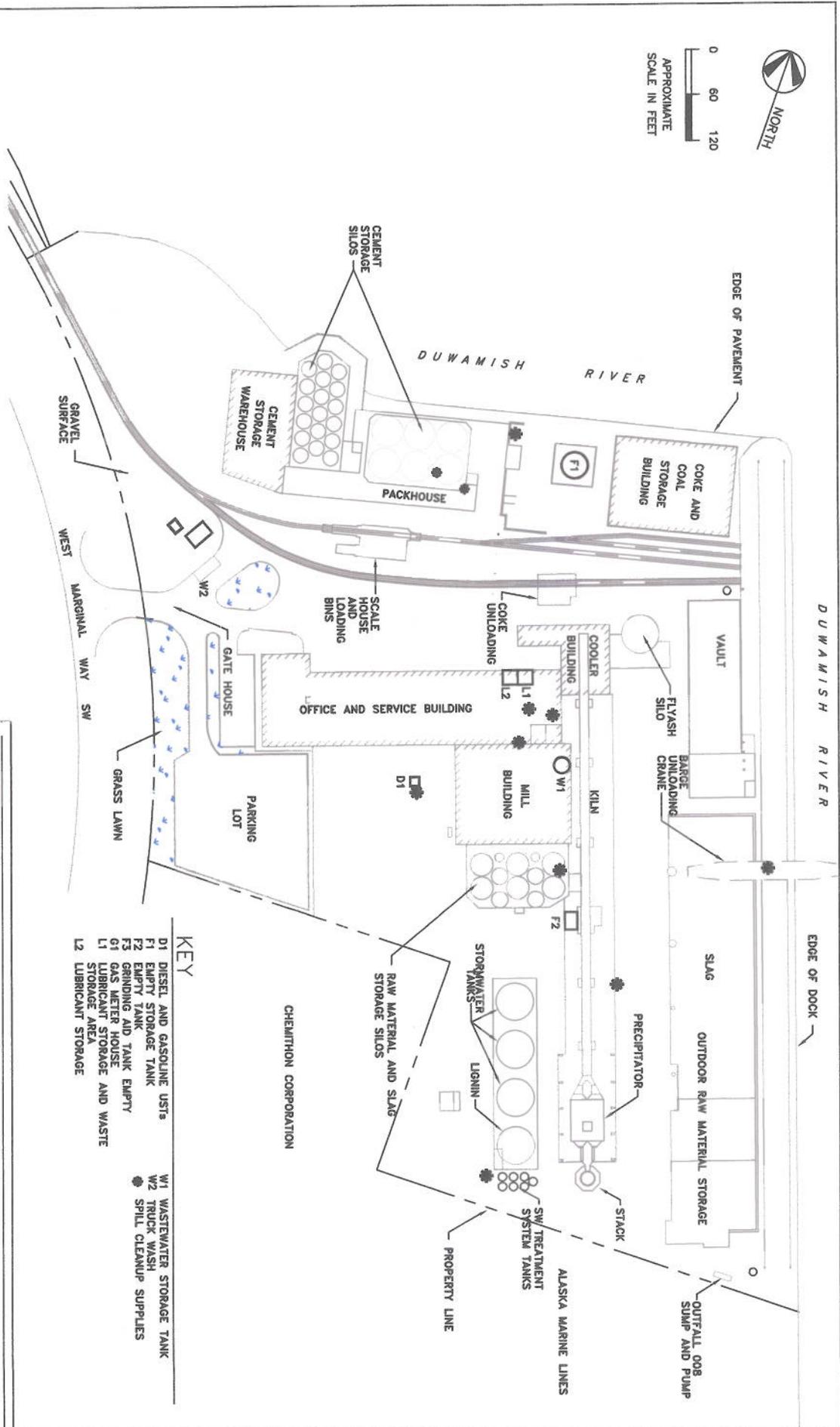


SHEET 1 1 OF 1	REVISIONS		
	Rev	Date	Description

FIGURE 1
VICINITY MAP
LAFARGE NORTH AMERICA

Designed: DS	
Drawn: DEK	
Checked: DEK	
Date: 03 09 10	
Scale: 1" = 2000'	

Figure 2.



- KEY**
- D1 DIESEL AND GASOLINE UTS
 - F1 EMPTY STORAGE TANK
 - F2 EMPTY TANK
 - F3 GRINDING AND TANK EMPTY
 - G1 GAS METER HOUSE
 - L1 LUBRICANT STORAGE AND WASTE STORAGE AREA
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 - W2 TRUCK WASH
 - SPILL CLEANUP SUPPLIES

CHEMTHON CORPORATION



FACILITY SITE PLAN
STORMWATER
OPERATIONS & MAINTENANCE MANUAL

SEA 781 S 050

Figure

APPENDIX B
Inspection Forms

INDUSTRIAL STORMWATER MONTHLY INSPECTION REPORT

Inspections must be conducted by a person with the knowledge and skills to assess conditions and activities that could impact stormwater quality at the facility, and evaluate the effectiveness of best management practices required by this permit. Retain a copy of the completed and signed form in accordance with Permit Condition S9.C.

FACILITY NAME:	INSPECTION TIME:	DATE:		
WEATHER INFORMATION:				
<ul style="list-style-type: none"> • Description of Weather Conditions (e.g., sunny, cloudy, raining, snowing, etc.): _____ 				
<ul style="list-style-type: none"> • Was stormwater (e.g., runoff from rain or snowmelt) flowing at outfalls and/or discharge areas shown on the Site Map during the inspection: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Comments: _____ 				
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION				
<p>SWPPP and Site Map: Have a copy of the SWPPP and site map with you during the inspection so that you can ensure they are current and accurate. Use it as an aide in recording the location of any issues you identify during the inspection.</p> <ul style="list-style-type: none"> • Is the Site Map current and accurate? • Is the SWPPP inventory of activities, materials and products current? <p>Any new potential pollutant sources must be added to the map and reflected in the <i>SWPPP Facility Assessment & Tables 2, 2A, 3 and 5.</i></p>	Yes	No	<p>Findings and Remedial Action Documentation: Describe any findings below and the schedule for remedial action completion including the date initiated and date completed or expected to be completed.</p>	
<p>Vehicle/Equipment Areas:</p> <p><i>Equipment cleaning: Check NA if not performed on-site. Skip section.</i></p> <p>Is equipment washed and/or cleaned only in designated areas?</p> <ul style="list-style-type: none"> • Observe washing: Is all wash water captured and properly disposed of? <p><i>Equipment fueling: Check NA if not performed on-site. Skip section.</i></p> <ul style="list-style-type: none"> • Are all fueling areas free of contaminant buildup and evidence of chronic leaks/spills? • Are all chemical liquids, fluids, and petroleum products, on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater? • Are structures in place to prevent precipitation from accumulating in containment areas? <ul style="list-style-type: none"> ○ If not, is there any water or other fluids accumulated within the containment area? ○ Note: If containment areas are not covered to prevent water from accumulating, the SWPPP must include a plan describing how accumulated water will be managed and disposed of. 	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>

<p>Equipment maintenance:</p> <ul style="list-style-type: none"> • Are maintenance tools, equipment and materials stored under shelter, elevated and covered? • Are all drums and containers of fluids stored with proper cover and containment? • Are exteriors of containers kept outside free of deposits? • Are any vehicles and/or equipment leaking fluids? Identify leaking equipment. • Is there evidence of leaks or spills since last inspection? Identify and address. • Are materials, equipment, and activities located so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas)? <p>Add any additional site-specific BMPs:</p> <hr/> <hr/> <hr/> <hr/>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
--	-----	----	----	---

I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION				
<p>Good Housekeeping BMPs:</p> <p>1. Are paved surfaces free of accumulated dust/sediment and debris?</p> <ul style="list-style-type: none"> • Date of last quarterly vacuum/sweep _____ • Are there areas of erosion or sediment/dust sources that discharge to storm drains? <p>2. Are all waste receptacles located outdoors:</p> <ul style="list-style-type: none"> • In good condition? • Not leaking contaminants? • Closed when is not being accessed? • External surfaces and area free of excessive contaminant buildup? <p>3. Are the following areas free of accumulated dust/sediment, debris, contaminants, and/or spills/leaks of fluids?</p> <ul style="list-style-type: none"> • External dock areas • Pallet, bin, and drum storage areas • Maintenance shop(s) • Equipment staging areas (loaders, tractors, trailers, forklifts, etc) • Around bag-house(s) • Around bone yards • Other areas of industrial activity: <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>

<p>Spill Response and Equipment:</p> <p>Are spill kits available, in the following locations?</p> <ul style="list-style-type: none"> Fueling stations Transfer and mobile fueling units Vehicle and equipment maintenance areas <p>Do the spill kits contain all the permit required items?</p> <ul style="list-style-type: none"> Oil absorbents capable of absorbing 15 gallons of fuel. A storm drain plug or cover kit. A non-water containment boom, a minimum of 10 feet in length with a 12 gallon absorbent capacity. A non-metallic shovel. Two five-gallon buckets with lids. <p>Are contaminated absorbent materials properly disposed of?</p>	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
I. POTENTIAL POLLUTANT SOURCE AREA INSPECTION AND BEST MANAGEMENT PRACTICES EVALUATION				
<p>General Material Storage Areas:</p> <ul style="list-style-type: none"> Are damaged materials stored inside a building or another type of storm resistance shelter? Are all uncontained material piles stored in a manner that does not allow discharge of impacted stormwater? Are scrap metal bins covered? Are outdoor containers covered? 	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
<p>Stormwater BMPs and Treatment Structures: Visually inspect all stormwater BMPs and treatment structures devices, discharge areas infiltration and outfalls shown on the Site Map.</p> <ul style="list-style-type: none"> Are BMPs and treatment structures in good repair and operational? Are BMPs and treatment structures free from debris buildup that may impair function? The permit requires Permittees to clean catch basins when the depth of debris reaches 60% of the sump depth. In addition, the Permittee must keep the debris surface at least 6 inches below the outlet pipe. Based on this, do catch basins need to be cleaned? Are berms, curbing or other methods used to divert and direct discharges adequate and in good condition? 	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>
<p>Observation of Stormwater Discharges:</p> <ul style="list-style-type: none"> Is the discharge free of floating materials, visible oil sheen, discoloration, turbidity, odor, foam or any other signs of contamination? Water from washing vehicles or equipment, steam cleaning and/or pressure washing is considered process wastewater and is not allowed to comingle with stormwater or enter storm drains. Is process water comingling with stormwater or entering storm drains? Illicit discharges include domestic wastewater, noncontact cooling water, or process wastewater (including leachate). Were any illicit discharges observed during the inspection? 	Yes	No	NA	<p>Findings and Remedial Action Documentation:</p>



**Stormwater Pollution Prevention Plan (SWPPP)
Amendment
Lafarge North America Seattle Plant
October 23, 2012**

Lafarge North America, Inc.
5400 West Marginal Way SW
Seattle, WA 98106-1517

Prepared for:

Washington State Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452



1 Introduction

The Lafarge North America Seattle Plant (the Plant), located at 5400 West Marginal Way SW in Seattle, WA, has recently developed and submitted to the Department of Ecology (Ecology) the *Stormwater Pollution Prevention Plan (SWPPP) Lafarge North America Seattle Plant* (Lafarge, 2012).

This SWPPP Amendment is written to identify the transloading of PVC resin from railcar to bulk truck and shipment off site.

The Plant discharges treated stormwater to the Duwamish Waterway under National Pollutant Discharge Elimination System (NPDES) permit no. WA0002232. Condition S8.E.2 of this permit requires that the SWPPP be updated whenever the description of potential pollutant sources identified in the SWPPP is inadequate. When the current *SWPPP* was prepared, PVC resin was not handled by the plant and, therefore, was not included in the *SWPPP* material inventory. This document serves as a SWPPP Amendment to describe changes to the Plant’s material inventory and pollution prevention measures and controls that would result from handling PVC resin.

2 Facility and Materials Description

This section reviews facilities and modifies facility and material information specific to the storage and transfer of PVC resin at the plant.

2.1 Material Description

Polyvinyl Chloride (PVC) resin is a common raw material used to produce thermoplastics such as plastic bags, pipes, furniture, window panes and door frames.

PVC resin powder at the plant will be delivered in railcars and pneumatically transloaded to a truck trailer and transferred off site. A Material Safety Data Sheet (MSDS) is included as Appendix A.

2.2 Summary of Potential Contamination Sources

PVC resin will be brought on site in pneumatic rail cars. The PVC resin will be transferred to Bulk trucks following the Formosa Plastics Corporation Logistics Management Department SOP for unloading hopper cars (Appendix B). The PVC will not be used in the manufacturing process on-site, and therefore is classified as a transload material. Material quantities are summarized in Table 1.

Table 1. Material Inventory

Material	Stormwater Drainage Basin	Purpose / Location	Quantity (per month)			Units
			Used	Produced	Stored	
PVC Resin	8	Transload Material/Rail yard	0	0	400	tons



2.3 Description of Pollutant Sources

The transloading area is located in Basin 4. Prior to transloading, rail cars entering the plant will pass through Basin 1 and Basin 4. Likewise, trucks hauling PVC off site will pass through Basin 4 and Basin 1. Stormwater collected from Basin 4 drains to the Outfall 004 lift station, while stormwater collected in Basin 1 drains to the Outfall 001 lift station.

From the Outfall 001, Outfall 004, and Outfall 008 lift stations, stormwater is pumped to the collection and treatment system. A comprehensive description of the stormwater management system is presented in the *SWPPP*.

2.4 Process Water Assessment

The transloading of PVC is not anticipated to generate process water.

3 Best Management Practices

This section describes source control and treatment BMPs specific to the storage and handling of PVC resin powder at the Plant. The BMPs included in this section are a combination of existing site BMPs and those recommended by Ecology's 2004 *Guidance Manual* and Volume IV of Ecology's 2005 *Stormwater Management Manual (SWMM) for Western Washington*. The Volume IV SWMM BMPs reviewed include:

1. Loading and Unloading Area for Liquid or Solid Material

The BMPs are divided into three main categories: operational source controls, structural source controls, and treatment. Operational source control BMPs are non-structural controls that prevent pollutants from or reduce the amount of pollutants entering storm water. Structural source control BMPs are physical, structural, or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater. Treatment BMPs are devices or facilities that are intended to remove pollutants from stormwater. These BMPs are summarized below.

3.1 Operational Source Control BMPs

Operational source control BMPs that will be implemented in areas affected by PVC transloading include, but are not limited to:

- Sweep the loading or unloading areas frequently.
- Check transfer equipment regularly for leaks and repair as needed.
- Prepare and observe Standard Operating Procedures (SOPs) for railcar transloading to bulk truck.
- Immediately cleanup any spill during transloading. Clean transfer areas at the end of transfer operations.
- Maintain appropriate spill cleanup kits nearby on-site during loading and unloading.
- Have an employee trained in spill cleanup present during all transloading operations.
- At the transloading area, place drip pans within the rails to collect spills/leaks from tank cars, hose connections, and filler nozzles.

Additionally, operational source control BMPs already identified in the *SWPPP* will be maintained for PVC transloading.



3.2 Structural Source Control BMPs

Structural source control BMPs to control, divert, or treat runoff flow from material storage and handling areas are in place at the Plant. This section describes structural source control BMPs specific to PVC resins handling. Structural source control BMPs include, but are not limited to:

- Insure Resin retention devices are in place below the outlet caps of the railcar
- Dust collection is employed to ensure no fugitive dust during transloading

Additionally, structural source control BMPs already identified in the *SWPPP* will be maintained for lignin storage and transfer.

3.3 Treatment BMPs

The majority of the Plant's stormwater is collected and treated by a stormwater treatment system. The *SWPPP* describes the Plant's stormwater collection and treatment system in detail. All stormwater with the potential to be contaminated by PVC spills will be treated by the Plant's stormwater collection and treatment system.

4 Implementation

BMPs described in the *SWPPP* are currently implemented at the Plant. BMPs specific to PVC transloading will be implemented with Ecology approval prior to the handling and storage of lignin.

5 Recordkeeping and Reporting

No changes to the recordkeeping and reporting conditions contained in the *SWPPP* and in Lafarge's NPDES permit will result from PVC transloading operations.



References

Stormwater Pollution Prevention Plan (SWPPP) Lafarge North America Seattle Plant. Lafarge North America, Inc. May 15, 2012.



Lafarge SWPPP Amendment

**Appendix A:
PVC Resin Material Safety Data Sheet (MSDS)**



**Appendix B:
Formosa Unloading Hopper Cars SOP**



January 11, 2013

Mr. Ed Abbasi
Washington Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

Re : Lafarge North America Seattle Plant – SWPPP Amendment No. 2 Second Containment Vault Transloading

Dear Mr. Abassi:

The purpose of this letter is to transmit a Stormwater Pollution Prevention Plan (SWPPP) Amendment for the creation of a second containment vault for transloading of materials. The amendment augments the May 2012 SWPPP with the practices and procedures that will be implemented or changed as a result of the transloading with the second containment vault at the Plant.

The SWPPP Amendment describes the second containment vault transloading activities and best management practices (BMPs) we will implement to prevent impacts to existing stormwater discharges.

If you have any question or if you need any additional information, please contact me at (206) 336-0962.

Best regards,

A handwritten signature in blue ink, appearing to read 'Daniel Waldron', with a stylized flourish at the end.

Daniel Waldron
Quality/Environmental Coordinator

c: Jonathan Hall, Plant Operations Manager



**Stormwater Pollution Prevention Plan (SWPPP)
Amendment
Lafarge North America Seattle Plant
January 11, 2013**

Lafarge North America, Inc.
5400 West Marginal Way SW
Seattle, WA 98106-1517

Prepared for:

Washington State Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452



1 Introduction

The Lafarge North America Seattle Plant (the Plant), located at 5400 West Marginal Way SW in Seattle, WA, has recently developed and submitted to the Department of Ecology (Ecology) the *Stormwater Pollution Prevention Plan (SWPPP) Lafarge North America Seattle Plant* (Lafarge, 2012).

This SWPPP Amendment is written to identify the addition of a second containment vault for the transloading of materials.

The Plant discharges treated stormwater to the Duwamish Waterway under National Pollutant Discharge Elimination System (NPDES) permit no. WA0002232. Condition S8.4.B of this permit requires that the SWPPP be updated whenever major BMP's have changed. This document serves as a SWPPP Amendment to describe changes to the Plant's BMP's that result from the addition of a second containment vault for transloading of materials.

3 Best Management Practices

This section describes source control and treatment BMPs specific to the second containment vault used for transloading of materials. The BMPs included in this section are a combination of existing site BMPs and those recommended by Ecology's 2004 *Guidance Manual* and Volume IV of Ecology's 2005 *Stormwater Management Manual (SWMM) for Western Washington*. The Volume IV SWMM BMPs reviewed include:

1. Loading and Unloading Area for Liquid or Solid Material

The BMPs are divided into three main categories: operational source controls, structural source controls, and treatment. Operational source control BMPs are non-structural controls that prevent pollutants from or reduce the amount of pollutants entering storm water. Structural source control BMPs are physical, structural, or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater. Treatment BMPs are devices or facilities that are intended to remove pollutants from stormwater. These BMPs are summarized below.

3.1 Operational Source Control BMPs

Operational source control BMPs that will be implemented in transloading area of the second containment vault, but are not limited to:

- Sweep or clean the loading or unloading areas frequently.
- Check transfer equipment regularly for leaks and repair as needed.
- Immediately cleanup any spill during transloading.
- Maintain appropriate spill cleanup kits nearby on-site during loading and unloading.
- Have an employee trained in spill cleanup present during all transloading operations.



3.2 Structural Source Control BMPs

Structural source control BMPs to control, divert, or treat runoff flow from material storage and handling areas are in place at the Plant. This section describes structural source control BMPs specific to the transloading at the second containment vault. Structural source control BMPs include, but are not limited to:

- Vault is constructed of concrete barriers which have been sealed using mortar, rubber, visqueen plastic and polyurea coating.
- Asphalt berm is in place in the transloading area
- Sump pump in the transloading area to return any water back to the second containment vault for removal with the material.

Additionally, structural source control BMPs already identified in the *SWPPP* will be maintained for transloading at the second containment vault.

3.3 Treatment BMPs

The majority of the Plant's stormwater is collected and treated by a stormwater treatment system. The *SWPPP* describes the Plant's stormwater collection and treatment system in detail. All stormwater with the potential to be contaminated in the transloading area of the second vault will be contained by an asphalt berm and pumped back into the vault for removal with the material.

5 Recordkeeping and Reporting

No changes to the recordkeeping and reporting conditions contained in the *SWPPP* and in Lafarge's NPDES permit will result from the second containment vault transloading operations.



References

Stormwater Pollution Prevention Plan (SWPPP) Lafarge North America Seattle Plant. Lafarge North America, Inc. May 15, 2012



**Stormwater Pollution Prevention Plan (SWPPP)
Amendment
Lafarge North America Seattle Plant
October 1, 2013**

Lafarge North America, Inc.
5400 West Marginal Way SW
Seattle, WA 98106-1517

Prepared for:

Washington State Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

1 Introduction

The Lafarge North America Seattle Plant (the Plant), located at 5400 West Marginal Way SW in Seattle, WA, submitted to the Department of Ecology (Ecology) the *Stormwater Pollution Prevention Plan (SWPPP) Lafarge North America Seattle Plant* (Lafarge, 2012).

This SWPPP Amendment is written to identify the addition of petroleum contaminated soil bioremediation activities.

The Plant discharges treated stormwater to the Duwamish Waterway under National Pollutant Discharge Elimination System (NPDES) permit no. WA0002232. Condition S8.4.B of this permit requires that the SWPPP be updated whenever major BMP's have changed. This document serves as a SWPPP Amendment to describe changes to the Plant's BMP's that result from the addition of soil remediation activities.

3 Best Management Practices

This section describes source control and treatment BMPs specific to the soil remediation activities. The BMPs included in this section are a combination of existing site BMPs and those recommended by Ecology's 2004 *Guidance Manual* and Volume IV of Ecology's 2005 *Stormwater Management Manual (SWMM) for Western Washington*. The Volume IV SWMM BMPs reviewed include:

1. Loading and Unloading Area for Liquid or Solid Material

The BMPs are divided into three main categories: operational source controls, structural source controls, and treatment. Operational source control BMPs are non-structural controls that prevent pollutants from or reduce the amount of pollutants entering storm water. Structural source control BMPs are physical, structural, or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater. Treatment BMPs are devices or facilities that are intended to remove pollutants from stormwater. These BMPs are summarized below.

3.1 Operational Source Control BMPs

Operational source control BMPs that will be implemented in the soil remediation area, but are not limited to:

- Sweep or clean the loading or unloading areas frequently.
- Immediately cleanup any spill during loading/unloading and place in treatment area.
- Pile will be covered if inactive for more than 7 days or if there is sufficient rain to saturate the soil.
- Mobile equipment will be cleaned before leaving the treatment area.
- Nutrients will be stored in waterproof bulk bags.



3.2 Structural Source Control BMPs

Structural source control BMPs to control, divert, or treat runoff flow from material storage and handling areas are in place at the Plant. This section describes structural source control BMPs specific to the remediation of contaminated soils. Structural source control BMPs include, but are not limited to:

- Treatment area is constructed of concrete barriers (See Figure A3-1) which have been sealed using either mortar, rubber, visqueen plastic or polyurea coating.
- Concrete or asphalt berm is in place at the open end of the treatment area.

Additionally, structural source control BMPs already identified in the *SWPPP* will be maintained for soil remediation activities.

5 Recordkeeping and Reporting

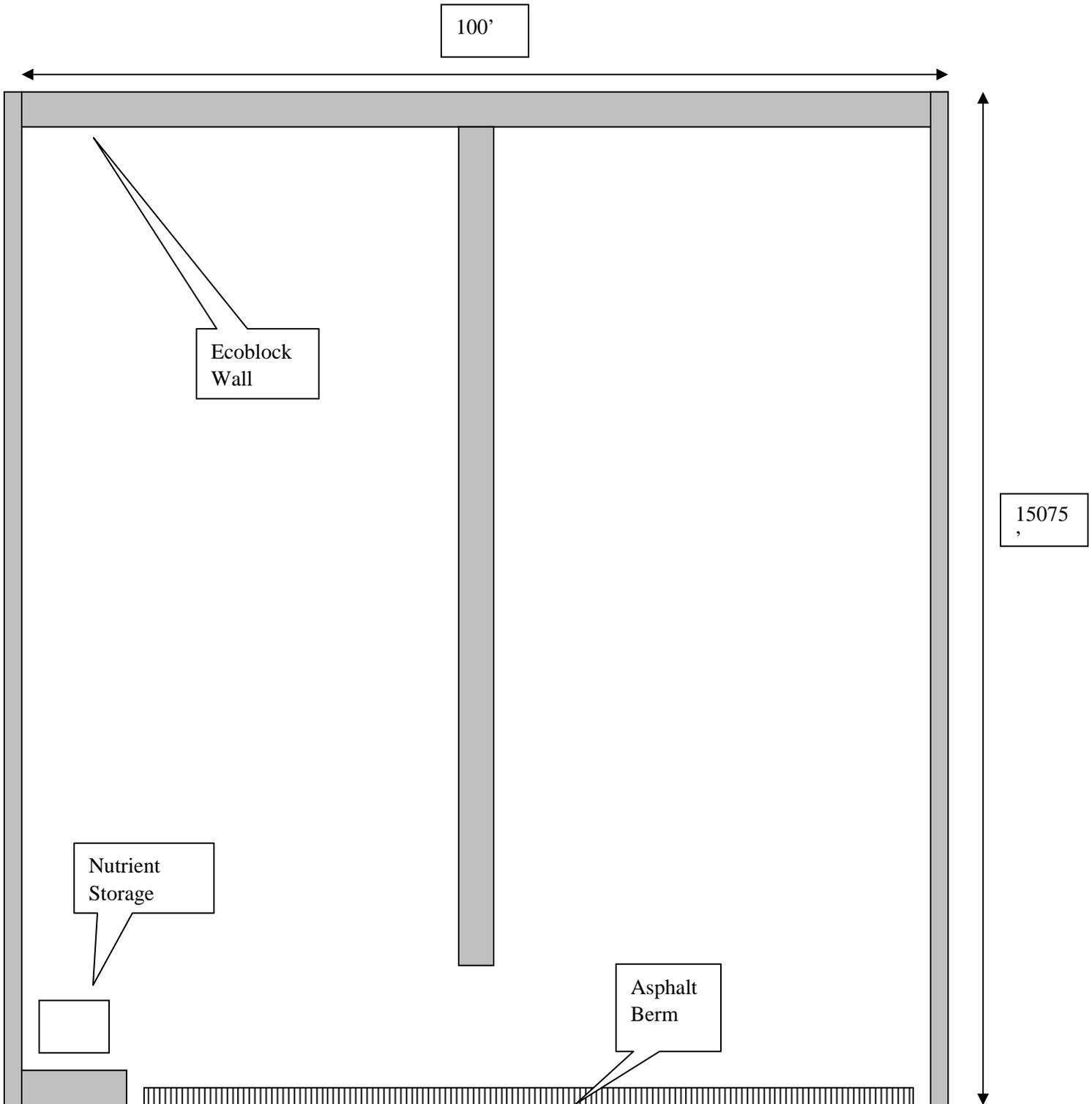
No changes to the recordkeeping and reporting conditions contained in the *SWPPP* and in Lafarge's NPDES permit will result from the soil remediation operations.



References

Stormwater Pollution Prevention Plan (SWPPP) Lafarge North America Seattle Plant. Lafarge North America, Inc. May 15, 2012

Figure 3A-1
Soil Remediation Area





**Stormwater Pollution Prevention Plan (SWPPP)
Amendment
Lafarge North America Seattle Plant
October 1, 2013**

Lafarge North America, Inc.
5400 West Marginal Way SW
Seattle, WA 98106-1517

Prepared for:

Washington State Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

1 Introduction

The Lafarge North America Seattle Plant (the Plant), located at 5400 West Marginal Way SW in Seattle, WA, submitted to the Department of Ecology (Ecology) the *Stormwater Pollution Prevention Plan (SWPPP) Lafarge North America Seattle Plant* (Lafarge, 2012).

This SWPPP Amendment is written to identify the addition of transloading petroleum contaminated soils from the upland clean-up of the Terminal 117 site.

The Plant discharges treated stormwater to the Duwamish Waterway under National Pollutant Discharge Elimination System (NPDES) permit no. WA0002232. Condition S8.4.B of this permit requires that the SWPPP be updated whenever major BMP's have changed. This document serves as a SWPPP Amendment to describe changes to the Plant's BMP's that result from the T-117 transloading activities.

3 Best Management Practices

This section describes source control and treatment BMPs specific to the transloading activities. The BMPs included in this section are a combination of existing site BMPs and those recommended by Ecology's 2004 *Guidance Manual* and Volume IV of Ecology's 2005 *Stormwater Management Manual (SWMM) for Western Washington*. The Volume IV SWMM BMPs reviewed include:

1. Loading and Unloading Area for Liquid or Solid Material

The BMPs are divided into three main categories: operational source controls, structural source controls, and treatment. Operational source control BMPs are non-structural controls that prevent pollutants from or reduce the amount of pollutants entering storm water. Structural source control BMPs are physical, structural, or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater. Treatment BMPs are devices or facilities that are intended to remove pollutants from stormwater. These BMPs are summarized below.

3.1 Operational Source Control BMPs

Operational source control BMPs that will be implemented in the transloading area, but are not limited to:

- Sweep or clean the transloading area frequently.
- Immediately cleanup any spill during loading/unloading and place in transloading area.
- Pile will be covered if inactive for more than 7 days or if there is sufficient rain forecasted to saturate the soil.
- Mobile equipment will be cleaned before leaving the area.
- Trucks hitches will be cleaned before leaving the unloading area.



3.2 Structural Source Control BMPs

Structural source control BMPs to control, divert, or treat runoff flow from material storage and handling areas are in place at the Plant. This section describes structural source control BMPs specific to the transloading of contaminated soils. Structural source control BMPs include, but are not limited to:

- Transloading area has a concrete barrier wall on the railroad track side (West side) and the pile is tarped to prevent contact with stormwater on the East side.

Additionally, structural source control BMPs already identified in the *SWPPP* will be maintained for transloading soil activities.

5 Recordkeeping and Reporting

No changes to the recordkeeping and reporting conditions contained in the *SWPPP* and in Lafarge's NPDES permit will result from the soil remediation operations.



References

Stormwater Pollution Prevention Plan (SWPPP) Lafarge North America Seattle Plant. Lafarge North America, Inc. May 15, 2012



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
SEATTLE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-3755

September 10, 2015

Regulatory Branch

Port of Bellingham
Mr. John Hergesheimer
Post Office Box 1677
Bellingham, Washington 98227-1677

Reference: NWS-2015-556
Bellingham, Port of

Dear Mr. Hergesheimer:

We have reviewed your application to replace an existing dock with a larger dock in a modified location in Bellingham Bay (Whatcom Waterway) at Bellingham, Washington. Based on the information you provided to us, this "Letter of Permission" (LOP) permit authorizes your proposal as depicted on the enclosed drawings dated May 18, 2015, which are made part of this permit. In order for this LOP authorization to be valid, you must ensure that the work is performed in accordance with the enclosed *Letter of Permission General Conditions* and the following special conditions:

- a. You must provide a copy of the permit transmittal letter, the permit form, and drawings to all contractors performing any of the authorized work.
- b. No residue from construction activity shall be allowed to enter waters of the U. S. The permittee must install and maintain debris collection measures until all project operations are complete.
- c. You must implement and abide by the Endangered Species Act (ESA) requirements and/or agreements set forth in the document titled, "Biological Assessment, Whatcom Waterway Cleanup in Phase 1 Site Areas," dated October 2012, the addenda dated March 15, 2013, and the memorandum dated June 3, 2015 in their entirety. The National Marine Fisheries Service (NMFS) concurred with a finding of "may affect, not likely to adversely affect" based on this document on August 14, 2015 (NMFS Reference Number WCR-2015-3104). The U.S. Fish and Wildlife Service (USFWS) concurred with a finding of "may affect, not likely to adversely affect" based on this document on September 9, 2015 (USFWS Reference Number 01EWF00-2015-I-0787). Both agencies will be informed of this permit issuance. Failure to comply with the commitments made in this document constitutes non-compliance with the ESA and your Corps permit. The USFWS/NMFS is the appropriate authority to determine compliance with ESA.

d. In order to meet the requirements of the Endangered Species Act and protect Puget Sound chinook, Puget Sound steelhead, and Coastal-Puget Sound bull trout, the permittee may conduct the authorized in-water activities from July 16th through February 15th in any year this permit is valid. No in-water work authorized by this permit shall occur from February 16th through July 15th.

We have reviewed your project pursuant to the requirements of the Endangered Species Act and the Magnuson-Stevens Fishery Conservation and Management Act in regards to Essential Fish Habitat (EFH). The Corps has determined that this project will comply with the requirements of the above laws provided you comply with special conditions “c” and “d” listed above.

Bellingham Bay is a water of the U.S. If you believe this is inaccurate, you may request a preliminary or approved jurisdictional determination (JD). If one is requested, please be aware that we may require the submittal of additional information to complete the JD and work authorized in this letter may not occur until the JD has been completed.

Any change in the plans for this work will require that you submit revised drawings to this office and receive our written approval of those changes prior to conducting the work. Also, we have completed an approved jurisdictional determination for your project area which can be found on our website at <http://www.nws.usace.army.mil/> click on Regulatory, Regulatory/Permits, and Recent Jurisdictional Determinations. If you object to any terms or conditions of this LOP or the jurisdictional determination, you may request an administrative appeal under our regulations 33 CFR 331 as described in the enclosed *Appeal Process Fact Sheet* and the *Notification of Administrative Appeal Options and Process and Request for Appeal* form.

Your authorization to conduct the proposed work under this permit expires 3 years from the date of this letter. Within 30 days of completing the authorized work, you must fill out and return the enclosed *Certificate of Compliance with Department of the Army Permit* form to the address indicated on the form. Your signature on this form is our assurance you have conducted the work and any required mitigation in accordance with the terms and conditions of this LOP, including all special conditions. Please remember that failure to comply with the terms and conditions of this LOP, including any special conditions, will invalidate your authorization and could result in a violation of Federal law.

Thank you for your cooperation during the permit process. We are interested in your experience with our Regulatory Program and encourage you to complete a customer service survey form. This form and information about our program is available on our website at: www.nws.usace.army.mil/ (select “Regulatory” and then “Regulatory/Permits”).

While this project will not require further authorization from us, please note that it must comply with all State, local, and other Federal requirements that may apply.

A copy of this correspondence with enclosures will be furnished to Derek Koellmann of Anchor QEA, LLC at 1605 Cornwall Avenue, Bellingham, Washington 98225. If you have any questions about this letter or our regulatory program, please contact Project Manager Randel Perry at randel.j.perry@usace.army.mil or by phone at (360) 734-3156.

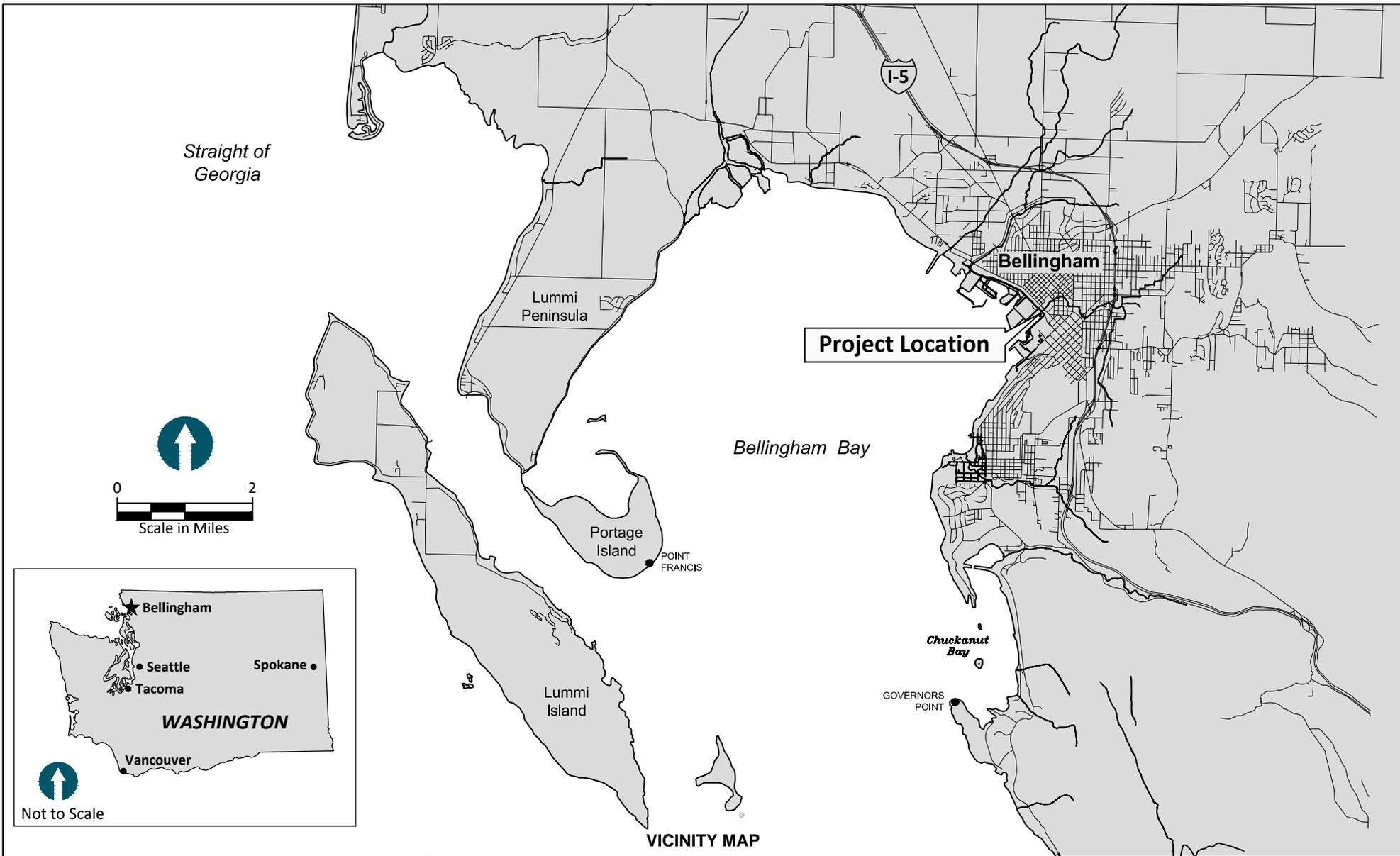
BY AUTHORITY OF THE SECRETARY OF THE ARMY:

A handwritten signature in black ink, appearing to read "Bruce A. Estok". The signature is written in a cursive style with a prominent vertical stroke at the end.

for Bruce A. Estok
Colonel, Corps of Engineers
District Engineer

Enclosures

K:\Projects\0007-port of bellingham\whatcom waterway cleanup inner wt\0007-JA-003.dwg Vicinity Map



VICINITY MAP

Jul 01, 2015 3:30pm chewett

PURPOSE: FLOAT RECONFIGURATION

DATUM: MLLW 0.0'
 LATITUDE: 48°45' 4"N
 LONGITUDE: 122° 29' 11"W
 S-T-R: 25-38N-2E, 36-38N-2E, 30-38N-3E

SITE LOCATION ADDRESS:
 WHATCOM WATERWAY
 BELLINGHAM, WASHINGTON 98225

NAME: WHATCOM WATERWAY COLONY WHARF RECONFIGURATION

Corps Ref# NWS-2015-556

ADJACENT PROPERTY OWNERS:
 1 - ORCHARD STREET DEVELOPMENT
 2 - ROMAINE ELECTRIC CORP.
 3 - BURLINGTON NORTHERN SANTA FE
 4 - MERIDIAN PACIFIC HWY, LLC

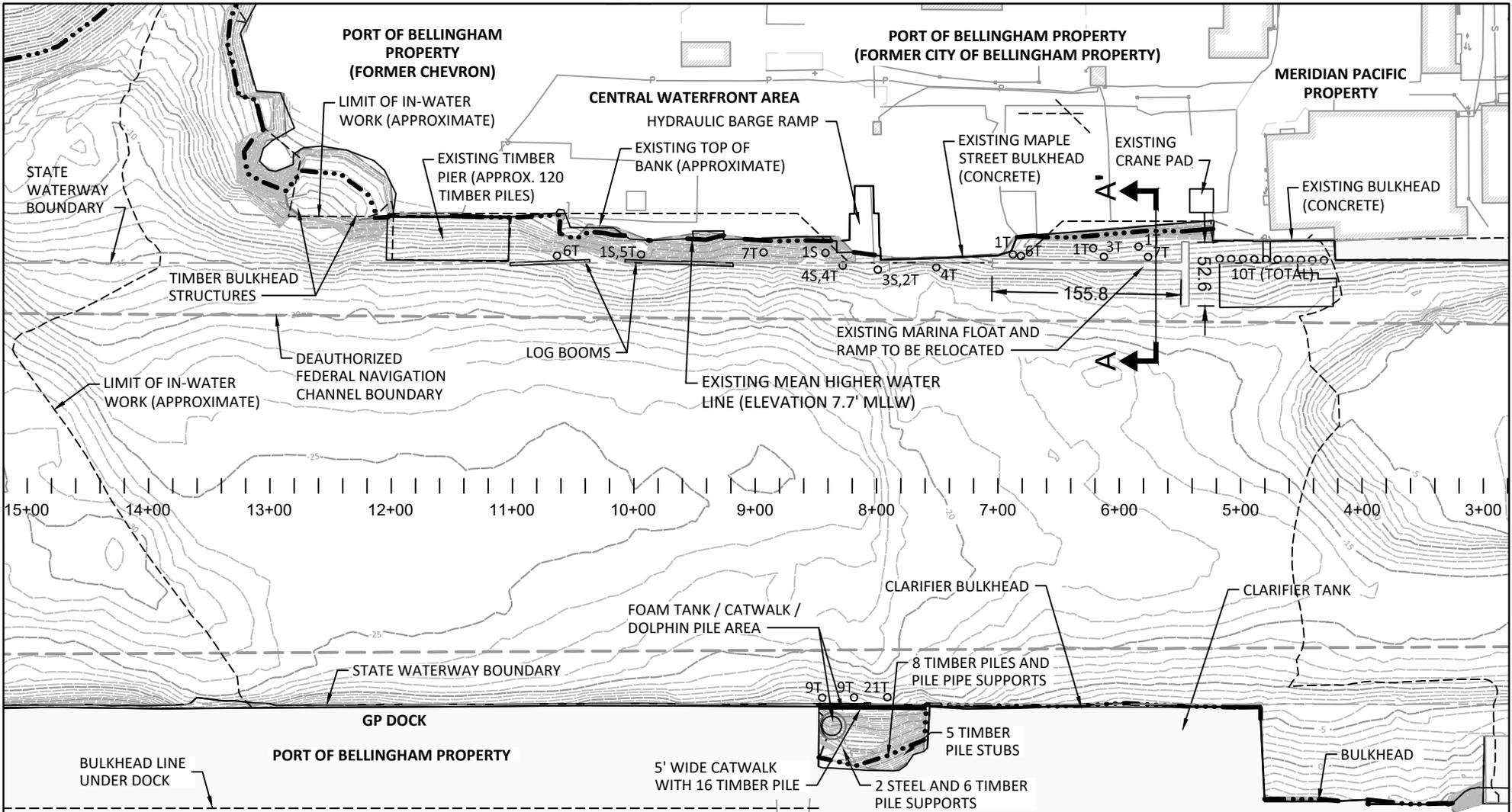
PROPOSED: RECONFIGURE EXISTING WHARF AND FLOATS

IN: BELLINGHAM BAY
 NEAR/AT: BELLINGHAM
 COUNTY OF: WHATCOM
 STATE: WASHINGTON

DATE: MAY 18, 2015



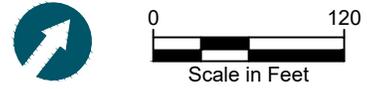
K:\Projects\0007-port of bellingham\whatcom_watway cleanup inner wfr\0007-ja-006.dwg J-INNER WATER-EXISTING



3T ○ EXISTING PILE/DOLPHIN CLUSTER
 3T — INDICATES NUMBER AND TYPE OF PILE
 (T = CREOSOTE TIMBER PILE, S = STEEL PILE)

INNER WATERWAY - EXISTING CONDITIONS

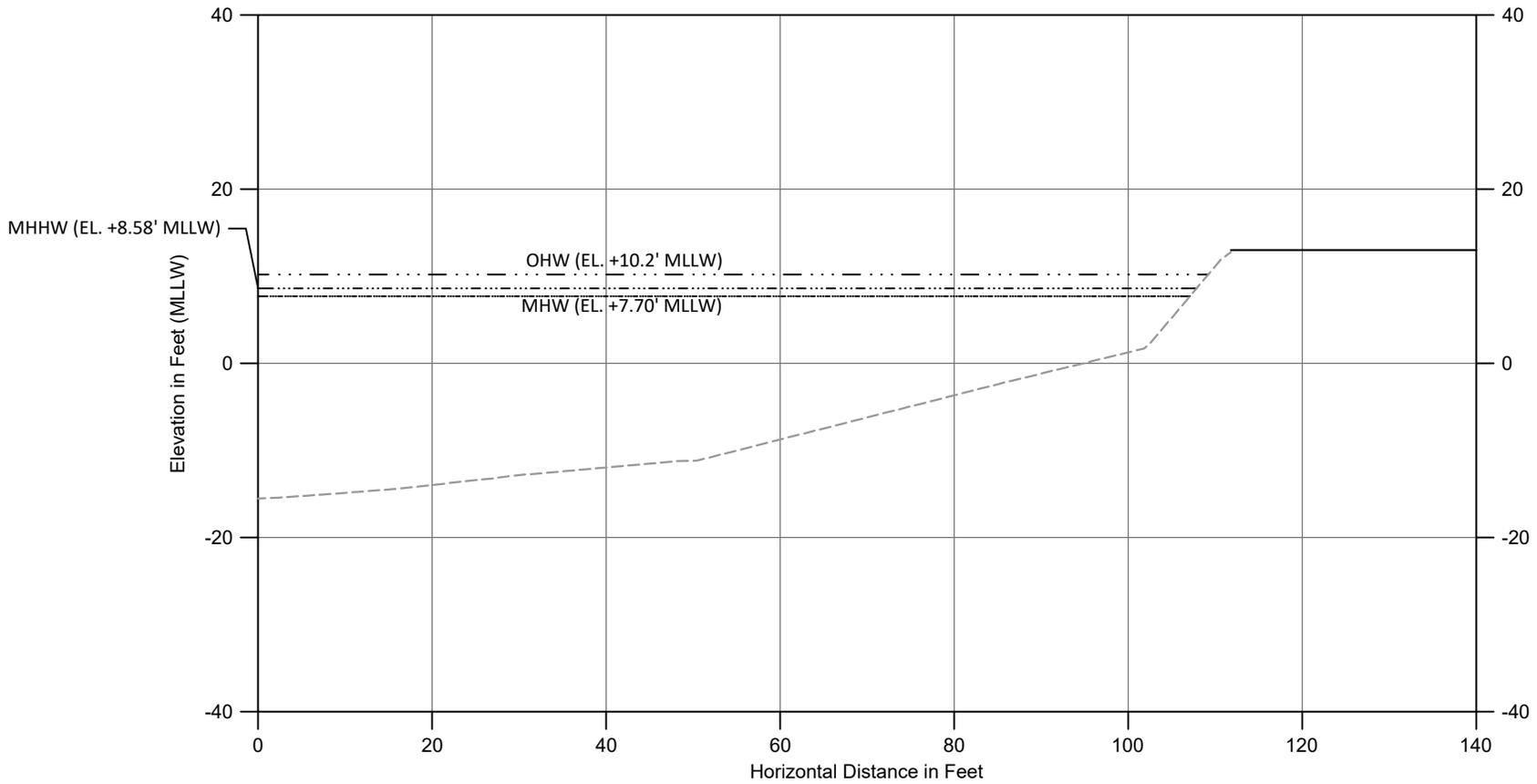
<p>PURPOSE: FLOAT RECONFIGURATION</p> <p>DATUM: MLLW 0.0' LATITUDE: 48°45' 4"N LONGITUDE: 122° 29' 11"W S-T-R: 25-38N-2E, 36-38N-2E, 30-38N-3E</p> <p>SITE LOCATION ADDRESS: WHATCOM WATERWAY BELLINGHAM, WASHINGTON 98225</p>	<p>NAME: WHATCOM WATERWAY COLONY WHARF RECONFIGURATION</p> <p>Corps Ref# NWS-2015-556</p> <p>ADJACENT PROPERTY OWNERS: 1 - ORCHARD STREET DEVELOPMENT 2 - ROMAINE ELECTRIC CORP. 3 - BURLINGTON NORTHERN SANTA FE 4 - MERIDIAN PACIFIC HWY, LLC</p>	<p>PROPOSED: RECONFIGURE EXISTING WHARF AND FLOATS</p> <p>IN: BELLINGHAM BAY NEAR/AT: BELLINGHAM COUNTY OF: WHATCOM STATE: WASHINGTON</p> <p>DATE: MAY 18, 2015</p>
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K:\Projects\0007-port of bellingham\whatcom_waterway_cleanup_inner_wft\0007-JA-006.dwg J-INNER WATER-XSEC (G) (Existing)

Jul 01, 2015 3:31pm chewett

A-A'



INNER WATERWAY - EXISTING CONDITIONS - CROSS SECTION A-A'

PURPOSE: FLOAT RECONFIGURATION

DATUM: MLLW 0.0'
 LATITUDE: 48°45' 4"N
 LONGITUDE: 122° 29' 11"W
 S-T-R: 25-38N-2E, 36-38N-2E, 30-38N-3E

SITE LOCATION ADDRESS:
 WHATCOM WATERWAY
 BELLINGHAM, WASHINGTON 98225

NAME: WHATCOM WATERWAY COLONY WHARF
 RECONFIGURATION

Corps Ref# NWS-2015-556

ADJACENT PROPERTY OWNERS:
 1 - ORCHARD STREET DEVELOPMENT
 2 - ROMAINE ELECTRIC CORP.
 3 - BURLINGTON NORTHERN SANTA FE
 4 - MERIDIAN PACIFIC HWY, LLC

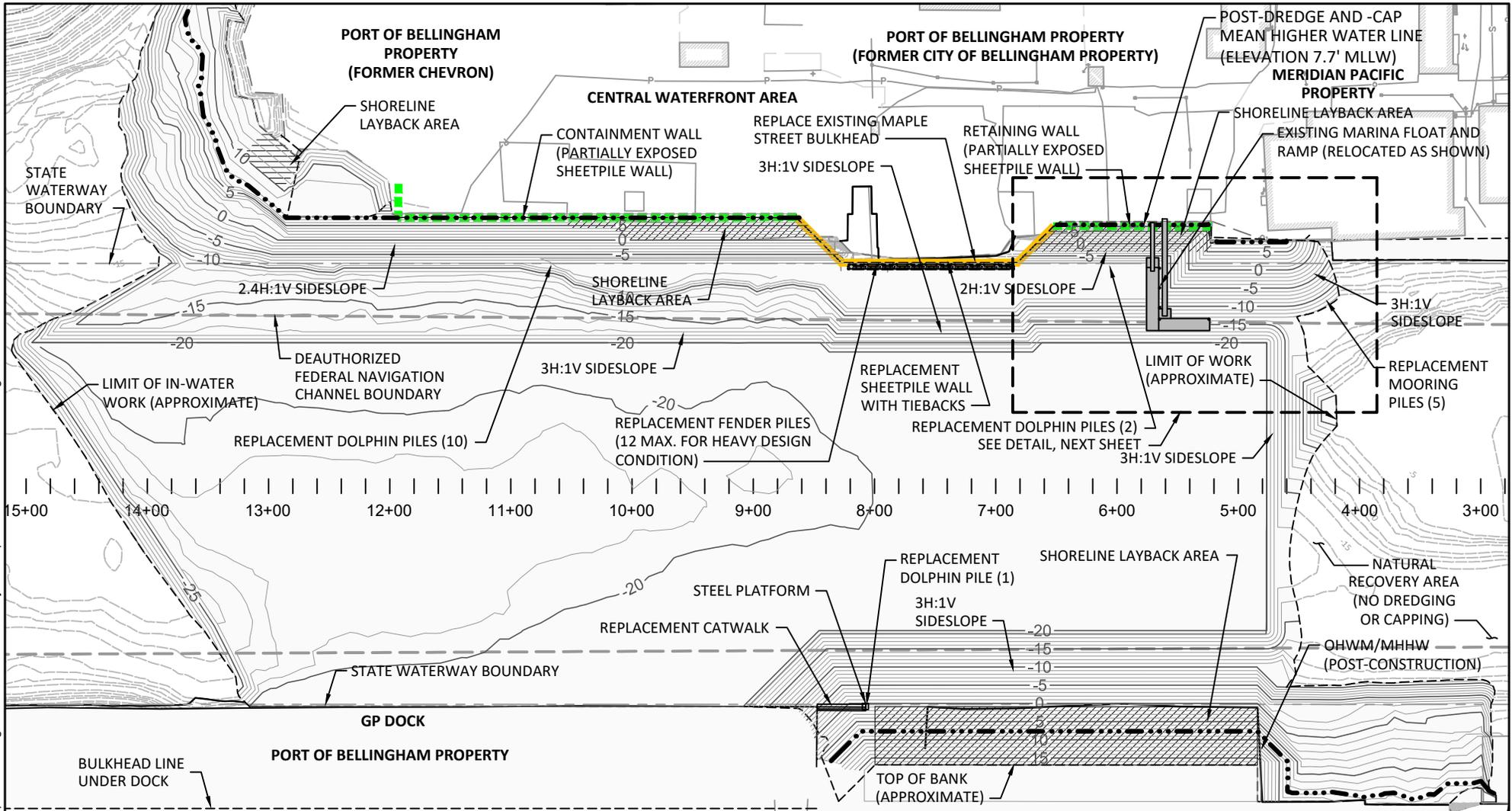
PROPOSED: RECONFIGURE EXISTING
 WHARF AND FLOATS

IN: BELLINGHAM BAY
 NEAR/AT: BELLINGHAM
 COUNTY OF: WHATCOM
 STATE: WASHINGTON

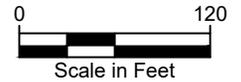
DATE: MAY 18, 2015



K:\Projects\0007-port of bellingham\whatcom_watway cleanup inner wfr\0007-JA-001.dwg J-INNER WATER-PROPOSED



- NOTES:
1. CAPPING TO BE COMPLETED THROUGHOUT IN-WATER LIMITS OF WORK.
 2. CONTOURS ARE POST-CAP CONDITIONS.
 3. CONTOUR INTERVAL 1-FT.



INNER WATERWAY - PROPOSED CONDITIONS INCLUDING PROPOSED FLOAT RECONFIGURATION

PURPOSE: FLOAT RECONFIGURATION

DATUM: MLLW 0.0'
 LATITUDE: 48°45' 4"N
 LONGITUDE: 122° 29' 11"W
 S-T-R: 25-38N-2E, 36-38N-2E, 30-38N-3E

SITE LOCATION ADDRESS:
 WHATCOM WATERWAY
 BELLINGHAM, WASHINGTON 98225

NAME: WHATCOM WATERWAY COLONY WHARF RECONFIGURATION

Corps Ref# NWS-2015-556

ADJACENT PROPERTY OWNERS:
 1 - ORCHARD STREET DEVELOPMENT
 2 - ROMAINE ELECTRIC CORP.
 3 - BURLINGTON NORTHERN SANTA FE
 4 - MERIDIAN PACIFIC HWY, LLC

PROPOSED: RECONFIGURE EXISTING WHARF AND FLOATS

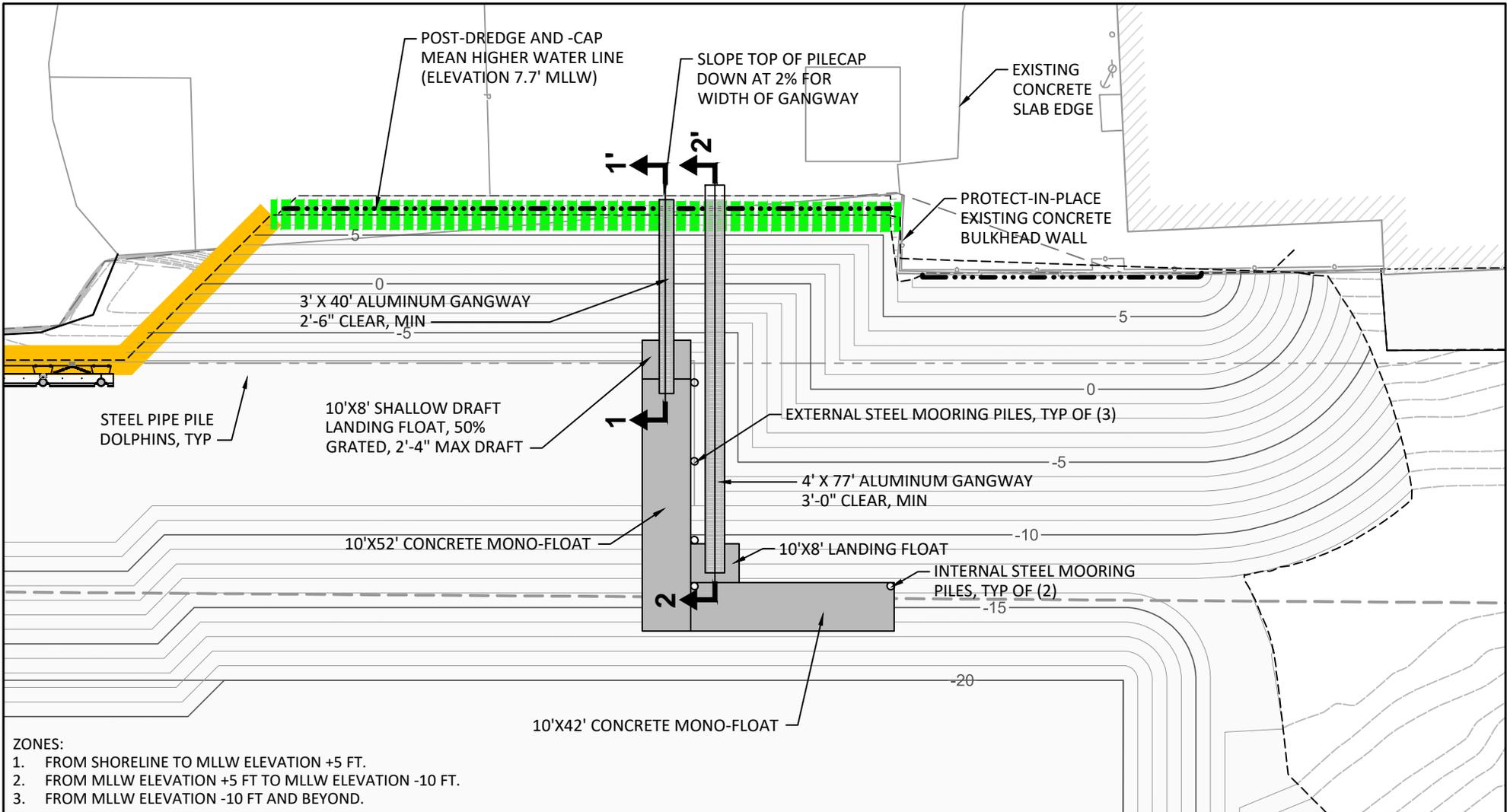
IN: BELLINGHAM BAY
 NEAR/AT: BELLINGHAM
 COUNTY OF: WHATCOM
 STATE: WASHINGTON

DATE: MAY 18, 2015



Jul 01, 2015 3:32pm chawett

K:\Projects\0007-port of bellingham\whatcom waterway cleanup inner wft\0007-JA-001.dwg J-COVERAGE



ZONES:

1. FROM SHORELINE TO MLLW ELEVATION +5 FT.
2. FROM MLLW ELEVATION +5 FT TO MLLW ELEVATION -10 FT.
3. FROM MLLW ELEVATION -10 FT AND BEYOND.

NOTES:

1. IMAGE FROM KPFF.
2. CONTOURS ARE POST-CAP CONDITIONS.
3. CONTOUR INTERVAL 1-FT.

COLONY WHARF - PROPOSED CONDITIONS



PURPOSE: FLOAT RECONFIGURATION

DATUM: MLLW 0.0'
 LATITUDE: 48°45' 4"N
 LONGITUDE: 122° 29' 11"W
 S-T-R: 25-38N-2E, 36-38N-2E, 30-38N-3E

SITE LOCATION ADDRESS:
 WHATCOM WATERWAY
 BELLINGHAM, WASHINGTON 98225

NAME: WHATCOM WATERWAY COLONY WHARF RECONFIGURATION

Corps Ref# NWS-2015-556

ADJACENT PROPERTY OWNERS:
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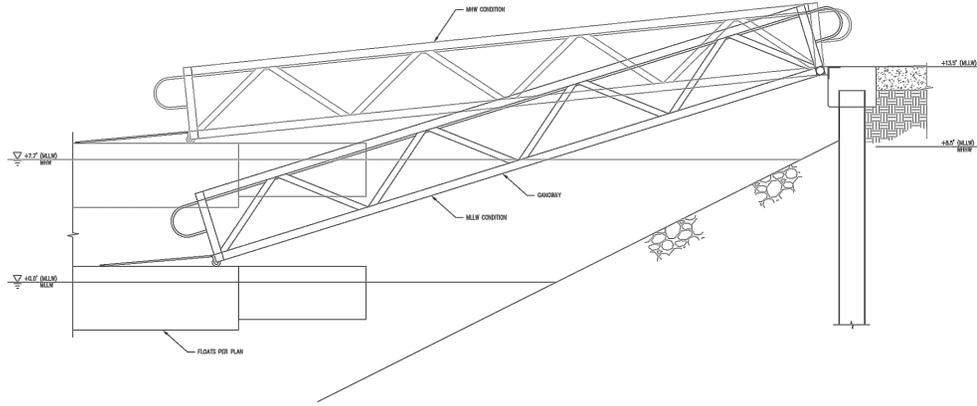
PROPOSED: RECONFIGURE EXISTING WHARF AND FLOATS

IN: BELLINGHAM BAY
 NEAR/AT: BELLINGHAM
 COUNTY OF: WHATCOM
 STATE: WASHINGTON

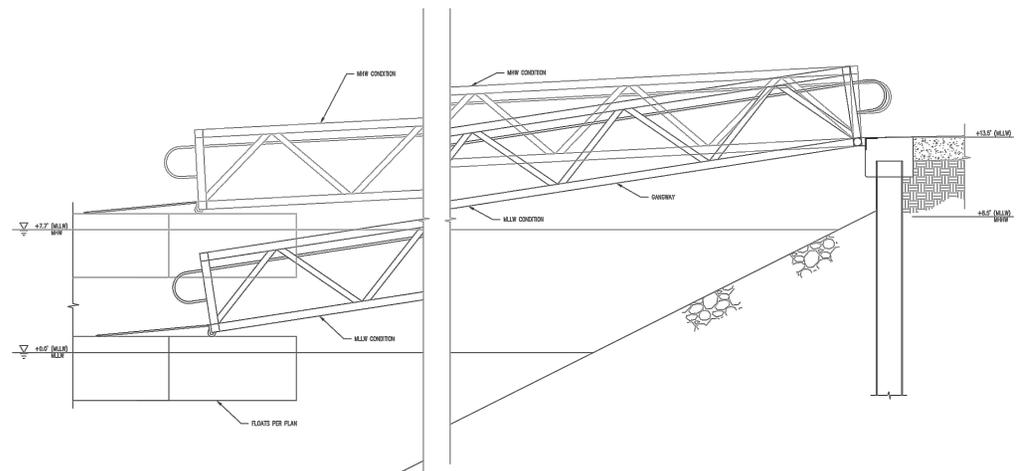
DATE: MAY 18, 2015



Jul 01, 2015 3:32pm chewett



TYPICAL CONCRETE FLOAT SECTION 1
NOT TO SCALE



TYPICAL CONCRETE FLOAT SECTION 2
NOT TO SCALE

NOTES:
1. IMAGE FROM KPFF.

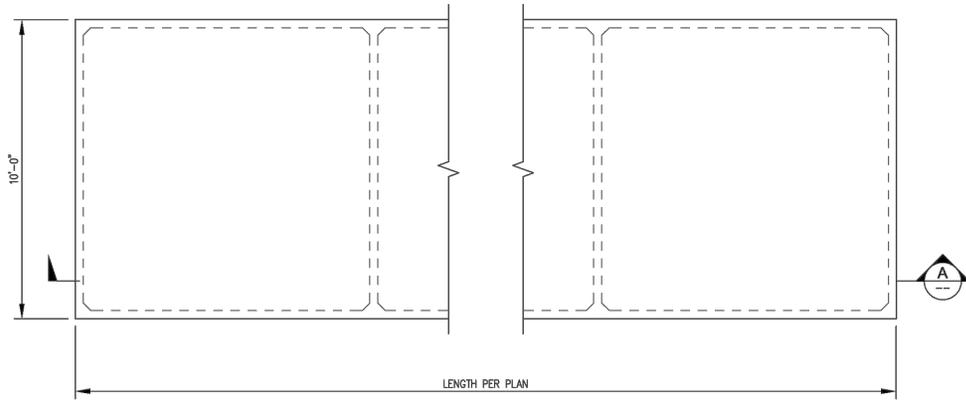


TYPICAL FLOAT PLAN AND SECTIONS

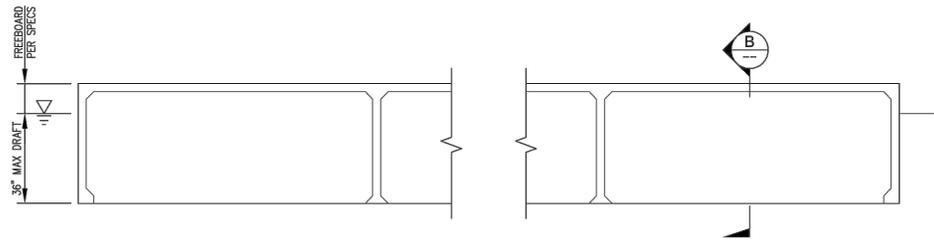
<p>PURPOSE: FLOAT RECONFIGURATION</p> <p>DATUM: MLLW 0.0'</p> <p>LATITUDE: 48°45' 4"N</p> <p>LONGITUDE: 122° 29' 11"W</p> <p>S-T-R: 25-38N-2E, 36-38N-2E, 30-38N-3E</p> <p>SITE LOCATION ADDRESS: WHATCOM WATERWAY BELLINGHAM, WASHINGTON 98225</p>	<p>NAME: WHATCOM WATERWAY COLONY WHARF RECONFIGURATION</p> <p>Corps Ref# NWS-2015-556</p> <p>ADJACENT PROPERTY OWNERS: 1 - ORCHARD STREET DEVELOPMENT 2 - ROMAINE ELECTRIC CORP. 3 - BURLINGTON NORTHERN SANTA FE 4 - MERIDIAN PACIFIC HWY, LLC</p>	<p>PROPOSED: RECONFIGURE EXISTING WHARF AND FLOATS</p> <p>IN: BELLINGHAM BAY NEAR/AT: BELLINGHAM COUNTY OF: WHATCOM STATE: WASHINGTON</p> <p>DATE: MAY 18, 2015</p>	  <p>SHEET: 6 OF 8</p>
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K:\Projects\0007-port of bellingham\whatcom waterway cleanup inner wharf\0007-JA-001.dwg J-SECTIONS (2)

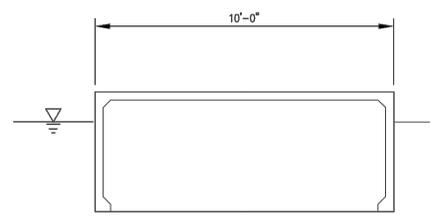
K:\Projects\0007-port of bellingham\whatcom waterway cleanup inner wft\0007-JA-001.dwg J-SECTIONS



TYPICAL CONCRETE FLOAT PLAN
NOT TO SCALE



TYPICAL CONCRETE FLOAT SECTION A
NOT TO SCALE



TYPICAL CONCRETE FLOAT SECTION B
NOT TO SCALE

- NOTES:**
1. IMAGE FROM KPFF.
 2. FLOAT DECK FEATURES AND ANCILLARY ITEMS NOT SHOWN FOR CLARITY.

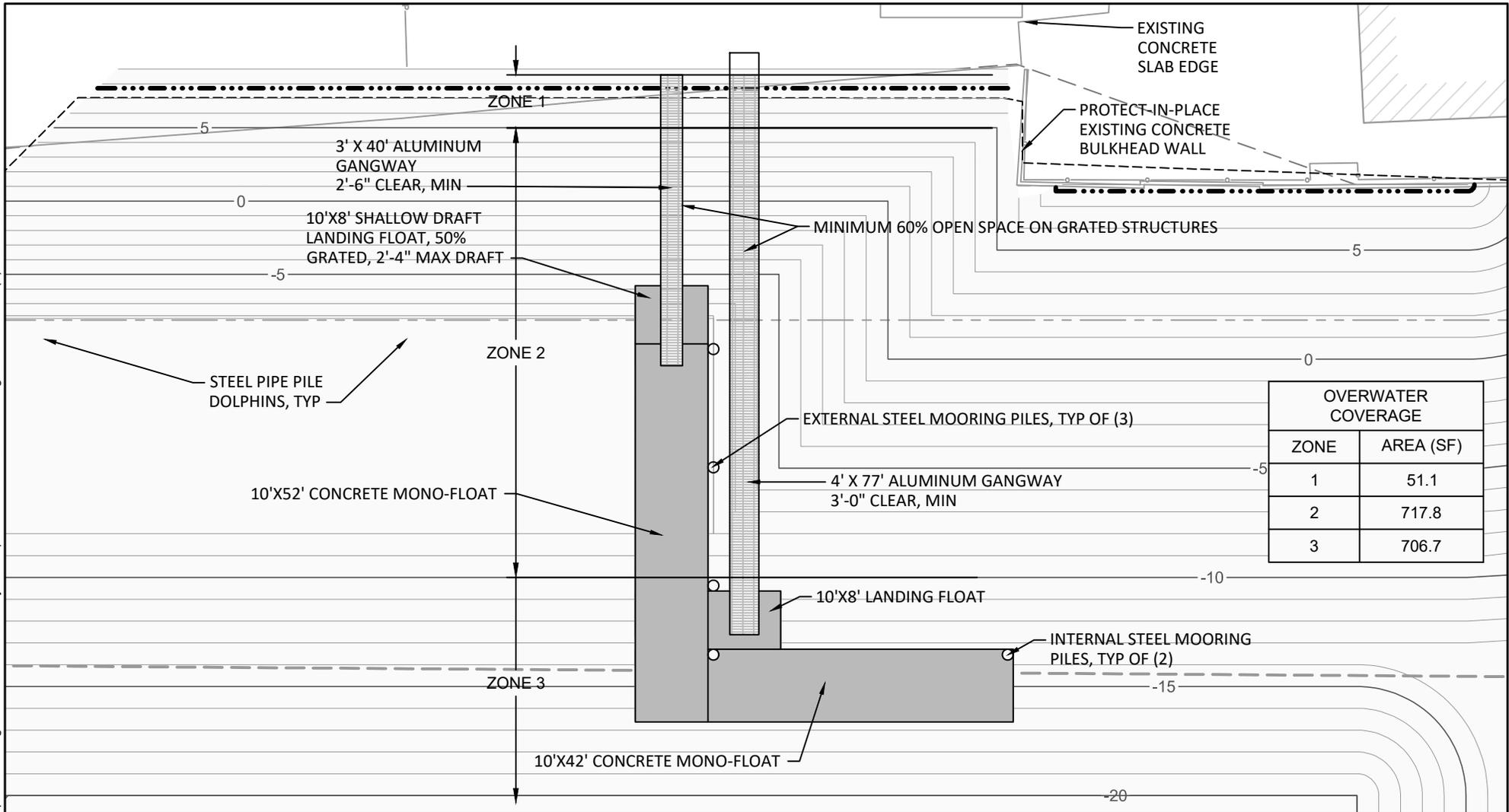
TYPICAL FLOAT PLAN AND SECTIONS



<p>PURPOSE: FLOAT RECONFIGURATION</p> <p>DATUM: MLLW 0.0'</p> <p>LATITUDE: 48°45' 4"N</p> <p>LONGITUDE: 122° 29' 11"W</p> <p>S-T-R: 25-38N-2E, 36-38N-2E, 30-38N-3E</p> <p>SITE LOCATION ADDRESS: WHATCOM WATERWAY BELLINGHAM, WASHINGTON 98225</p>	<p>NAME: WHATCOM WATERWAY COLONY WHARF RECONFIGURATION</p> <p>Corps Ref# NWS-2015-556</p> <p>ADJACENT PROPERTY OWNERS: 1 - ORCHARD STREET DEVELOPMENT 2 - ROMAINE ELECTRIC CORP. 3 - BURLINGTON NORTHERN SANTA FE 4 - MERIDIAN PACIFIC HWY, LLC</p>	<p>PROPOSED: RECONFIGURE EXISTING WHARF AND FLOATS</p> <p>IN: BELLINGHAM BAY NEAR/AT: BELLINGHAM COUNTY OF: WHATCOM STATE: WASHINGTON</p> <p>DATE: MAY 18, 2015</p>
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K:\Projects\0007-port of bellingham\whatcom waterway cleanup inner wfr\0007-JA-001.dwg J-COVERAGE (2)



COLONY WHARF - OVERWATER COVERAGE



PURPOSE: FLOAT RECONFIGURATION

DATUM: MLLW 0.0'
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SITE LOCATION ADDRESS:
 WHATCOM WATERWAY
 BELLINGHAM, WASHINGTON 98225

NAME: WHATCOM WATERWAY COLONY WHARF RECONFIGURATION

Corps Ref# NWS-2015-556

ADJACENT PROPERTY OWNERS:
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PROPOSED: RECONFIGURE EXISTING WHARF AND FLOATS

IN: BELLINGHAM BAY
 NEAR/AT: BELLINGHAM
 COUNTY OF: WHATCOM
 STATE: WASHINGTON

DATE: MAY 18, 2015





US Army Corps
of Engineers®
Seattle District

Letter of Permission General Conditions

February 24, 2003



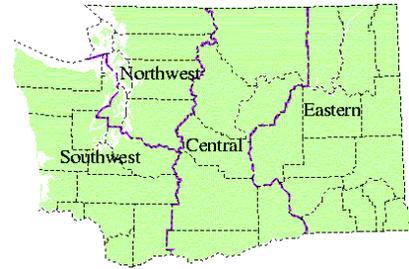
1. Reliance on Permittee's Information. In authorizing this work under this Letter of Permission (LOP), the Department of the Army has relied, in part, on the information provided by the permittee. If this information proves to be false, incomplete, or inaccurate, the permittee's authorization may be modified, suspended, or revoked, in whole or in part.
2. Compliance with Terms and Conditions. Projects authorized by this LOP shall comply with all terms and conditions herein and any case-specific conditions added or required by the District Engineer. Failure to abide by these terms and conditions invalidates this authorization and may result in a violation of federal law, which may require that the permittee restore the site or take other remedial action. Activities requiring Department of the Army authorization that are not specifically authorized by this LOP are prohibited unless authorized by another Department of the Army permit.
3. Contractor's Copy of Permit. The permittee shall provide a copy of the LOP (letter, drawings, and general conditions) to each contractor involved in the project and keep a copy of the LOP available for inspection at the project site.
4. Compliance Certification. Within 30 days of completing the authorized work, the permittee shall submit to the issuing office certification that the work, including any required compensatory mitigation, was conducted in accordance with the provisions of this LOP.
5. Access for Inspection. The permittee shall allow the District Engineer or his/her authorized representative to inspect the project whenever deemed necessary to assure that the work is being, or has been, accomplished in accordance with the terms and conditions of this permit.
6. Limits of Authorization. This permit does *not*:
 - a. Obviate the requirement to obtain all state, local, or other federal authorizations required by law for the activity authorized herein, including any authorization required from Congress;
 - b. Convey any property rights, either in real estate or material, or any exclusive privileges;
 - c. Authorize any injury to property, invasion of rights, or any infringement of federal, state, or local laws or regulations; or
 - d. Authorize the interference with any existing or proposed federal project.
7. Limits of Federal Liability. This permit is not an approval of the design features of any authorized project or an implication that such work is adequate for the intended purpose; a Department of the Army permit merely expresses the consent of the Federal Government to conduct the proposed work insofar as public rights are concerned. In issuing this LOP, the Federal Government does not assume any liability for the following:

- a. Design or construction deficiencies associated with the authorized work;
 - b. Damages to the permitted project or uses thereof as a result of other permitted activities or from natural causes, such as flooding;
 - c. Damages to persons, property, or to other permitted or unauthorized activities or structures caused by the activity authorized by this permit;
 - d. Damages associated with any future modification, suspension, revocation of this permit; or
 - e. Damage to the permitted project or uses thereof as a result of current or future activities undertaken by, or on behalf of, the United States in the public interest.
8. Obstruction of Navigation. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration. If the permittee fails to comply with the direction of the Corps of Engineers, the District Engineer may restore the navigable capacity of the waterway, by contract or otherwise, and recover the cost thereof from the permittee.
9. Navigation. The authorized work shall not interfere with the public's right to free navigation on navigable waters of the United States.
10. Tribal Rights. No activity authorized by this permit may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights. Please be aware that certain Tribes assert a right to attach nets to piers, docks, wharves, and other structures that may have been authorized by Department of the Army permits.
11. USACE Coordination. The permittee shall contact the appropriate office of the U.S. Army Corps of Engineers prior to commencing any construction in a federally maintained channel and/or waterway.
12. Stability. The permittees shall design projects to be stable against the forces of flowing water, wave action, and the wake of passing vessels.
13. Maintenance. The permittee must maintain all structures and work authorized by this LOP in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this responsibility if you abandon the authorized activity unless you complete a good faith transfer to a third party in compliance with General Condition 14, below. Should you wish to cease to maintain the authorized activity or abandon it without a good faith transfer, you must obtain a modification of this LOP from this office, which may require restoration of the area.
14. Transfer of Ownership. If you sell the property associated with this permit, the new owner must agree in writing to comply with all terms and conditions of this permit. A copy of that written agreement must be submitted to the issuing office to validate the transfer of this authorization.

15. Marking Structures. Permittees shall install and maintain any lights, signals, or other appropriate markers necessary to clearly designate the location of structures or work that might pose a hazard to public safety. Permittees shall abide by U.S. Coast Guard requirements concerning the marking of structures and work in navigable waters of the United States.
16. Endangered Species. This LOP does not authorize any activity that is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Endangered Species Act (ESA). Prospective permittees must notify the District Engineer if any listed species or designated critical habitat might be affected by, or is in the vicinity of, the project and shall not begin work until notified by the District Engineer that the requirements of the ESA have been satisfied and that the activity is authorized.
17. Historic Properties. This LOP does not authorize any activity that may affect historic properties listed, or eligible for listing, in the National Register of Historic Places (NRHP) until the provisions of 33 CFR 325, Appendix C, have been satisfied. Historic properties include prehistoric and historic archeological sites, and areas or structures of cultural interest. A prospective permittee must notify the District Engineer if the proposed activity may affect an historic property that is listed, eligible for listing, or may be eligible for listing in the NRHP, and shall not begin the activity until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. If a previously unknown historic property is encountered during work authorized by this LOP, the permittee shall cease work immediately, notify the District Engineer of the situation within one day of discovering the impact, and avoid any further impact to the property until the District Engineer verifies that the requirements of 33 CFR Part 325, Appendix C, have been satisfied.
18. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status unless the federal agency (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service) with direct management responsibility for that river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.
19. Alternatives. Activities authorized by LOP shall be designed and constructed to avoid and minimize adverse impacts to waters of the United States to the extent practicable through the use of alternatives.
20. Minimization of Environmental Impact. Permittees shall make every reasonable effort to conduct the authorized work in a manner that minimizes the adverse impact of the work on water quality and stream flow, fish and wildlife, and the natural environment, including adverse impacts to migratory waterfowl breeding areas, spawning areas, shellfish beds, and aquatic resource buffer zones. Work should be limited to periods of low flow and/or low tide when practicable.
21. Compensatory Mitigation. Appropriate and practicable compensatory mitigation shall be required to the extent necessary to ensure that the authorized activities would not have more than a minor adverse impact on the aquatic environment.
22. Soil Erosion and Sediment Controls. Permittees shall use and maintain appropriate erosion and sediment controls in effective operating condition and permanently stabilize all exposed soil and other fills, including any work below the ordinary high water mark or high tide line (in Seattle District, the high tide line is located at the “mean higher high water” line), at the earliest

practicable date using native vegetation to the maximum extent practicable. The permittee shall remove all installed controls as soon as they are no longer needed to control erosion or sediment.

23. Equipment. Permittees shall place heavy equipment working in wetlands on mats, and take all other appropriate measures to minimize soil disturbance.
24. Disposal of Construction Debris. Except as specifically authorized by this LOP, all construction debris and excess materials resulting from the authorized work shall be properly disposed of, and in a manner that does not allow it to enter into a waterway or otherwise degrade water quality.
25. Aquatic Life Movements. The work shall not substantially disrupt the necessary life-cycle movement of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area.
26. Skirting. The attachment of skirting to a pier, dock, float or similar structure is prohibited unless specifically authorized.
27. Water Supply Intakes. Permittees shall ensure that activities authorized by this LOP have no more than a minimal adverse impact on public water supply intakes.
28. Hazardous Materials. Permittees shall take all reasonable precautions to prevent any petroleum product, chemical, or other toxic or deleterious material from entering any waterbody. Should a spill occur, or if an oil sheen or distressed or dying fish are observed in the project vicinity, the permittee shall immediately cease work and contact the appropriate Washington Department of Ecology regional spill response office: (360) 407-6300, Southwest Region; (425) 649-7000, Northwest Region; (509) 575-2490, Central Region; or (509) 456-2926, East Region.
29. Re-evaluation of Decision. The Corps may re-evaluate its decision to authorize the work by a LOP whenever circumstances warrant. Such circumstances may include, but are not limited to, a failure on the part of the permittee to comply with the terms and conditions of the LOP; the permittee having submitted information in support of the permittee's application that proves to be false, incomplete, or inaccurate; or this office receiving pertinent new information that it did not consider during its original public interest review. Subsequent to its re-evaluation, the Corps may suspend, modify, or revoke its authorization pursuant to 33 CFR 325.7 or initiate an enforcement action as provided for in 33 CFR 326.4 and 326.5.
30. Extension of Time. A permittee may request an extension of the time allowed to complete the authorized activity, providing the reasons for the extension. The request must be submitted to this office well in advance of the above expiration date. Unless there are circumstances requiring either a prompt completion of the authorized activity or a re-evaluation of the public interest decision, the Corps normally gives favorable consideration to a request for an extension of this time limit.



NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Port of Bellingham		File Number: NWS-2015-556	Date: Sept. 10, 2015
Attached is:		See Section below	
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
X	PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
	PERMIT DENIAL	C	
	APPROVED JURISDICTIONAL DETERMINATION	D	
	PRELIMINARY JURISDICTIONAL DETERMINATION	E	

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found in Corps regulations at 33 CFR Part 331 or at <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/FederalRegulation.aspx>

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also, you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Randel Perry, Project Manager
U.S. Army Corps of Engineers, Seattle District
Post Office Box 3755
Seattle, Washington 98124-3755
Telephone: (360) 734-3156

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation, and will have the opportunity to participate in all site investigations.

<hr/> Signature of appellant or agent.	Date:	Telephone number:
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HYDRAULIC PROJECT APPROVAL

Washington Department of
Fish & Wildlife
PO Box 43234
Olympia, WA 98504-3234
(360) 902-2200

Issued Date: September 10, 2015
Project End Date: February 15, 2017

Permit Number: 2015-4-706+01
FPA/Public Notice Number: N/A
Application ID: 4490

PERMITTEE	AUTHORIZED AGENT OR CONTRACTOR
Port of Bellingham ATTENTION: John Hergesheimer P.O. Box 1677 Bellingham, WA 98227-1677	Anchor QEA ATTENTION: Valerie Oster 421 SW 6th Ave, Ste 750 Portland, OR 97204-1617

Project Name: Colony Wharf Float Reconfiguration Design Project (Colony Wharf Float Project)

Project Description: The Colony Wharf Float Project is within the footprint of the Whatcom Waterway Cleanup required by Consent Decree (No. 07-2-02257-7). The proposed Colony Wharf float reconfiguration will consist of two rectangular monofloats arranged in an L shape, accessed by an 80-foot-long ADA-compliant gangway. The ADA-compliant gangway will originate in the uplands and connect to the L-shaped floats via an 8-foot by 10-foot landing float. A second worker's gangway will connect to the L-shaped floats via a second 8-foot by 10-foot landing float.

PROVISIONS

AUTHORIZED WORK TIMES

1. **TIMING LIMITATION:** To protect fish and shellfish habitats at the job site, work below the ordinary high water line must occur from August 1 and February 15 of any year.
2. **APPROVED PLANS:** Work must be accomplished per plans and specifications submitted with the application and approved by the Washington Department of Fish and Wildlife, entitled "WHATCOM WATERWAY COLONY WHARF RECONFIGURATION", sheets 1-4 of 4, dated May 18, 2015, except as modified by this Hydraulic Project Approval. You must have a copy of these plans available on site during all phases of the project proposal.

NOTIFICATION

3. **PRE- AND POST-CONSTRUCTION NOTIFICATION:** You, your agent, or contractor must contact the Washington Department of Fish and Wildlife by e-mail at HPAapplications@dfw.wa.gov; mail to Post Office Box 43234, Olympia, Washington 98504-3234; or fax to (360) 902-2946 at least three business days before starting work, and again within seven days after completing the work. The notification must include the permittee's name, project location, starting date for work or date the work was completed, and the permit number. The Washington Department of Fish and Wildlife may conduct inspections during and after construction; however, the Washington Department of Fish and Wildlife will notify you or your agent before conducting the inspection.
4. **FISH KILL/ WATER QUALITY PROBLEM NOTIFICATION:** If a fish kill occurs or fish are observed in distress at the job site, immediately stop all activities causing harm. Immediately notify the Washington Department of Fish and Wildlife of the problem. If the likely cause of the fish kill or fish distress is related to water quality, also notify the Washington Military Department Emergency Management Division at 1-800-258-5990. Activities related to the fish kill or fish distress must not resume until the Washington Department of Fish and Wildlife gives approval. The Washington Department of Fish and Wildlife may require additional measures to mitigate impacts.

STAGING, JOB SITE ACCESS AND EQUIPMENT

5. Establish the staging area (used for activities such as equipment storage, vehicle storage, fueling, servicing, and



HYDRAULIC PROJECT APPROVAL

Washington Department of
Fish & Wildlife
PO Box 43234
Olympia, WA 98504-3234
(360) 902-2200

Issued Date: September 10, 2015
Project End Date: February 15, 2017

Permit Number: 2015-4-706+01
FPA/Public Notice Number: N/A
Application ID: 4490

hazardous material storage) in a location and manner that will prevent contaminants like petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials from entering waters of the state.

6. Clearly mark boundaries to establish the limit of work associated with site access and construction.
7. Check equipment daily for leaks and complete any required repairs before using the equipment in or near the water.
8. Lubricants composed of biodegradable base oils such as vegetable oils, synthetic esters, and polyalkylene glycols are recommended for use in equipment operated in or near water.

CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION CONTAINMENT

9. Prevent contaminants from the project, such as petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials, from entering or leaching into waters of the state.

RAMP AND FLOAT STRUCTURE

10. Remove the existing pier, ramp and float structure(s) from waters of the state. Do not relocate the structure(s) within waters of the state without written authorization from Washington Department of Fish and Wildlife.
11. The structure must not exceed the following widths; the 77-foot long ADA compliant gangway, 4-feet, the 40-foot long worker's gangway 3-feet, the two 10-foot long landing floats, 8-feet, the 52-foot long monofloat, 10-feet, and the 42-foot long monofloat, 10-feet.
12. The two access ramps and worker's landing float must include functional grating. The grating material's open area must be at least sixty percent.
 - a. Ramps must have one hundred percent of the entire deck surface covered in functional grating.
 - b. The worker's landing float must have at least fifty percent of the entire deck surface covered in functional grating.Orient grating so the lengthwise opening maximizes the amount of light penetration. Any objects that are not part of the structure on, above, or below the grating should not block light penetration. Flotation must be located under the solid decked area only.
13. The bottom of the float(s) must be at least one foot above the substrate so that the structure will not rest on the bottom.
14. Flotation for the structure(s) must be fully enclosed and contained in a shell (tub). The shell or wrap must prevent breakup or loss of the flotation material into the water. The shell or wrap must not be readily subject to damage by ultraviolet radiation and abrasion.
15. Do not construct skirting including batter fencing constructed around piers or floats unless approved by the Washington Department of Fish and Wildlife.
16. Use low-intensity lights that are located and shielded to prevent light from reaching the water surface.
17. Do not use wood treated with oil-type preservative (creosote, pentachlorophenol) in any hydraulic project. Wood treated with waterborne preservative chemicals (ACZA, ACQ) may be used if the Western Wood Preservers Institute has approved the waterborne chemical for use in the aquatic environment. The manufacturer must follow the Western Wood Preservers Institute guidelines and the best management practices to minimize the preservative migrating from treated wood into aquatic environments. To minimize leaching, wood treated with a preservative by someone other than a manufacturer must follow the field treating guidelines. These guidelines and best management practices are available at www.wwpinstitute.org.
18. PILE DRIVING
 19. As specified in the approved plans, five 24-inch diameter steel guide piles will be used to secure the float structure.
 20. Fit all pilings with devices to prevent perching by fish-eating birds.
 21. Use a vibratory hammer to install piling.



HYDRAULIC PROJECT APPROVAL

Washington Department of
Fish & Wildlife
PO Box 43234
Olympia, WA 98504-3234
(360) 902-2200

Issued Date: September 10, 2015
Project End Date: February 15, 2017

Permit Number: 2015-4-706+01
FPA/Public Notice Number: N/A
Application ID: 4490

- 22. If impact pile driving is used, set the drop height to the minimum needed to drive the piling.
- 23. Use appropriate sound attenuation when driving or proofing steel piling with an impact hammer.
 - a. For driving or proofing steel piling greater than 10 inches in diameter, install a bubble curtain around the pile during piling impact driving operations.
 - b. To avoid attracting fish to light at night, limit impact pile driving to daylight hours whenever feasible.

HABITAT FEATURES

- 24. Project activities must not adversely impact seagrass and kelp (e.g., barge must not ground, anchor or spud down, equipment must not operate, and other project activities must not occur in seagrass and kelp).

DEMOBILIZATION/CLEANUP

- 25. Remove all trash and unauthorized fill in the project area, including concrete blocks or pieces, bricks, asphalt, metal, treated wood, glass, floating debris, and paper, that is waterward of the ordinary high water line and deposit upland.

LOCATION #1:		Site Name: Whatcom Waterway - Colony Wharf 1001 C Street, Bellingham, WA 98225				
WORK START:		September 10, 2015		WORK END:		February 15, 2017
<u>WRIA</u>		<u>Waterbody:</u>			<u>Tributary to:</u>	
01 - Nooksack		Wria 01 Marine			Puget Sound	
<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
SE 1/4	25	38 N	02 E	48.75194	-122.49111	Whatcom
<u>Location #1 Driving Directions</u>						
From Interstate 5 (I-5) northbound, take Exit 253 toward Lakeway Drive. Turn right on King Street. Turn right onto Lakeway Drive. Continue onto Lakeway Drive and take a slight right where Lakeway Drive becomes East Holly Street. Continue on East Holly Street. Turn left onto C Street. The Project area is located on the left (south) side of C Street.						

APPLY TO ALL HYDRAULIC PROJECT APPROVALS

This Hydraulic Project Approval pertains only to those requirements of the Washington State Hydraulic Code, specifically Chapter 77.55 RCW. Additional authorization from other public agencies may be necessary for this project. The person(s) to whom this Hydraulic Project Approval is issued is responsible for applying for and obtaining any additional authorization from other public agencies (local, state and/or federal) that may be necessary for this project.

This Hydraulic Project Approval shall be available on the job site at all times and all its provisions followed by the person (s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work.



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This Hydraulic Project Approval does not authorize trespass.

The person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work may be held liable for any loss or damage to fish life or fish habitat that results from failure to comply with the provisions of this Hydraulic Project Approval.

Failure to comply with the provisions of this Hydraulic Project Approval could result in a civil penalty of up to one hundred dollars per day and/or a gross misdemeanor charge, possibly punishable by fine and/or imprisonment.

All Hydraulic Project Approvals issued under RCW 77.55.021 are subject to additional restrictions, conditions, or revocation if the Department of Fish and Wildlife determines that changed conditions require such action. The person(s) to whom this Hydraulic Project Approval is issued has the right to appeal those decisions. Procedures for filing appeals are listed below.

MINOR MODIFICATIONS TO THIS HPA: You may request approval of minor modifications to the required work timing or to the plans and specifications approved in this HPA. Any approved minor modification will require issuance of a letter documenting the approval. A minor modification to the required work timing means any change to the work start or end dates of the current work season to enable project or work phase completion. Minor modifications will be approved only if spawning or incubating fish are not present within the vicinity of the project. You may request subsequent minor modifications to the required work timing. A minor modification of the plans and specifications means any changes in the materials, characteristics or construction of your project that does not alter the project's impact to fish life or habitat and does not require a change in the provisions of the HPA to mitigate the impacts of the modification. Minor modifications do not require you to pay additional application fees or be issued a new HPA. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a minor modification through APPS. A link to APPS is at <http://wdfw.wa.gov/licensing/hpa/>. If you do not use APPS you must submit a written request that clearly indicates you are seeking a minor modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the control number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234, or by email to HPAapplications@dfw.wa.gov. Do not include payment with your request. You should allow up to 45 days for the department to process your request.

MAJOR MODIFICATIONS TO THIS HPA: You may request approval of major modifications to any aspect of your HPA. Any approved change other than a minor modification to your HPA will require issuance of a new HPA. If you paid an application fee for your original HPA you must pay an additional \$150 for the major modification. If you did not pay an application fee for the original HPA, no fee is required for a change to it. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a major modification through APPS. A link to APPS is at <http://wdfw.wa.gov/licensing/hpa/>. If you do not use APPS you must submit a written request that clearly indicates you are requesting a major modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the control number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, payment of the application the original application was subject to an application fee, and the requestor's signature. Send your written request and payment, if applicable, by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234. You should allow up to 45 days for the department to process your request.



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APPEALS INFORMATION

If you wish to appeal the issuance, denial, conditioning, or modification of a Hydraulic Project Approval (HPA), Washington Department of Fish and Wildlife (WDFW) recommends that you first contact the department employee who issued or denied the HPA to discuss your concerns. Such a discussion may resolve your concerns without the need for further appeal action. If you proceed with an appeal, you may request an informal or formal appeal. WDFW encourages you to take advantage of the informal appeal process before initiating a formal appeal. The informal appeal process includes a review by department management of the HPA or denial and often resolves issues faster and with less legal complexity than the formal appeal process. If the informal appeal process does not resolve your concerns, you may advance your appeal to the formal process. You may contact the HPA Appeals Coordinator at (360) 902-2534 for more information.

A. INFORMAL APPEALS: WAC 220-660-460 is the rule describing how to request an informal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete informal appeal procedures. The following information summarizes that rule.

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request an informal appeal of that action. You must send your request to WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, 600 Capitol Way North, Olympia, Washington 98501-1091; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. WDFW must receive your request within 30 days from the date you receive notice of the decision. If you agree, and you applied for the HPA, resolution of the appeal may be facilitated through an informal conference with the WDFW employee responsible for the decision and a supervisor. If a resolution is not reached through the informal conference, or you are not the person who applied for the HPA, the HPA Appeals Coordinator or designee will conduct an informal hearing and recommend a decision to the Director or designee. If you are not satisfied with the results of the informal appeal, you may file a request for a formal appeal.

B. FORMAL APPEALS: WAC 220-660-470 is the rule describing how to request a formal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete formal appeal procedures. The following information summarizes that rule.

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request a formal appeal of that action. You must send your request for a formal appeal to the clerk of the Pollution Control Hearings Boards and serve a copy on WDFW within 30 days from the date you receive notice of the decision. You may serve WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, 600 Capitol Way North, Olympia, Washington 98501-1091; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. The time period for requesting a formal appeal is suspended during consideration of a timely informal appeal. If there has been an informal appeal, you may request a formal appeal within 30 days from the date you receive the Director's or designee's written decision in response to the informal appeal.

C. FAILURE TO APPEAL WITHIN THE REQUIRED TIME PERIODS: If there is no timely request for an appeal, the WDFW action shall be final and unappealable.



HYDRAULIC PROJECT APPROVAL

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FPA/Public Notice Number: N/A
Application ID: 4490

Habitat Biologist

Doug.Thompson@dfw.wa.gov

A handwritten signature in black ink that reads "Douglas A. Thompson".

for Director

Doug Thompson

360-466-4345, Ext:251

WDFW



PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT

210 Lottie Street, Bellingham, WA 98225
Telephone: (360) 778-8300 Fax: (360) 778-8301 TTY: (360) 778-8382

5HR2015-00017

SHORELINE PERMIT EXEMPTION AUTHORIZATION for TYPE I PROJECTS

Date: 10-9-15 VALERIE OSTER, 503-972-5013
Applicant and Contact Information: DEREK KOELMAN, 733-4311 ANCEFOR REA
Project Address and Parcel #: WHITCOM WATERWAY, 1001 C STREET
Shoreline Designation and Reach #: WD-SHORE MIX USE - MARINE S
Buffer Width: Ø
Conforming USE ? Y Conforming DEVELOPMENT ? (Buffer, height etc.) Y
Associated Development Permit #(s): N/A
Exempt pursuant to BMC 22.05.020.B.1: 6.
Rationale: MAINTENANCE/REPAIR. FLOAT RECONFIGURATION
DECREASES WATER-SURFACE COVERAGE BY ~ 190 #

Condition(s): CONSTRUCT AS PROPOSED. ACQUIRE OTHER PERMITS
AS NECESSARY.

Exempt from SEPA pursuant to WAC 197-11-800 3

Authorized By: 

APPENDIX B
SUMMARY OF ENVIRONMENTAL
CONTROLS

**Table B1
Permit Compliance Checklist**

Item Number	Source (date)	Agency	Commitment	Source Page Number(s)	Source Paragraph, Bullet, or Reference Number	Commitment Met (Y/N)	Notes
<i>Whatcom Waterway Cleanup in Phase I Site Areas - Permits and Approvals</i>							
1	Engineering Design Report Appendix K BMPs (02-2013)	Port of Bellingham	The Port will adhere to the agency notification BMPs as described in the project permits and approvals.	1	Bullets 1 and 2	Y	
2	Engineering Design Report Appendix K BMPs (02-2013)	Port of Bellingham	In-water work will be performed consistent with the joint regulatory agency-approved fish protection work windows for the Project as determined during the permitting approvals for the Project.	1	Bullet 3	Y	A 2-week in-water work window extension was approved by the U.S. Army Corps of Engineers for dredging of contaminated sediments and placement of clean engineering capping materials and vibratory pile driving.
3	Engineering Design Report Appendix K BMPs (02-2013)	Port of Bellingham	The Port will adhere to water quality BMPs for monitoring, turbidity, and operational controls as described in Appendix K.	1-2	Page 1, Bullet 4; Page 2, Bullets 1-7	Y	Water quality monitoring data are available in Appendix E.
4	Engineering Design Report Appendix K BMPs (02-2013)	Port of Bellingham	The Port will adhere to spill prevention and control BMPs as described in Appendix K.	2-3	Page 2, Bullet 8; Page 3, Bullets 1-3	Y	One fuel release occurred to the Whatcom Waterway during refueling of a workboat. The spill was reported, contained and cleaned up with no environmental damage.
5	Engineering Design Report Appendix K BMPs (02-2013)	Port of Bellingham	The Port will adhere to pile removal and disposal BMPs adapted from the U.S. Environmental Protection Agency and Washington Department of Natural Resources as described in Appendix K.	3-6	Page 3, Bullet 4; Page 4, Bullets 1-12; Pages 5-6, Bullets 1-12	Y	
6	Engineering Design Report Appendix K BMPs (02-2013)	Port of Bellingham	The Port will adhere to dredging and cap placement BMPs as described in Appendix K.	6	Bullets 1-3	Y	
7	Engineering Design Report Appendix K BMPs (02-2013)	Port of Bellingham	The Port will adhere to Log Pond and Berth 1 area eelgrass protection measures described in Appendix K.	6	Bullets 4 and 5	Y	
8	Engineering Design Report Appendix K BMPs (02-2013)	Port of Bellingham	The Port will adhere to stormwater control BMPs as described in Appendix K.	7	Bullets 1 and 2	Y	The Construction Stormwater General Permit for the Project is available in Appendix A.
9	Engineering Design Report Appendix K BMPs (02-2013)	Port of Bellingham	The Port will adhere to upland storage, stockpile, and material disposal management BMPs as described in Appendix K.	7	Bullets 3 and 4	Y	
10	Engineering Design Report Appendix K BMPs (02-2013)	Port of Bellingham	The Port will adhere to barge operations BMPs as described in Appendix K.	7	Bullets 5-10	Y	
11	Engineering Design Report Appendix K BMPs (02-2013)	Port of Bellingham	The Port will adhere to shoreline modification BMPs as described in Appendix K.	8	Bullets 1-8	Y	

**Table B1
Permit Compliance Checklist**

Item Number	Source (date)	Agency	Commitment	Source Page Number(s)	Source Paragraph, Bullet, or Reference Number	Commitment Met (Y/N)	Notes
12	Engineering Design Report Appendix K BMPs (02-2013)	Port of Bellingham	The Port will adhere to replacement infrastructure BMPs as described in Appendix K.	8	Bullets 9 and 10	Not applicable	Impact driving was not performed during this project.
13	Engineering Design Report Appendix K BMPs (02-2013)	Port of Bellingham	The Port will adhere to steel sheetpile bulkheads BMPs as described in Appendix K.	9	Bullets 1-4	Y	
14	Engineering Design Report Appendix K BMPs (02-2013)	Port of Bellingham	The Port will adhere to mooring floats BMPs as described in Appendix K.	9-10	Page 9, Bullets 5-7; Page 10, Bullets 1 and 2	Y	
15	Engineering Design Report Appendix K BMPs (02-2013)	Port of Bellingham	The Port will adhere to the Maple Street barge ramp BMPs as described in Appendix K.	10	Bullets 3 and 4	Y	
16	Building Permit (BLD2015-00218)	City of Bellingham	The Port will construct the project in compliance with all inspections and conditions.	1	NA	Y	Final special inspection summary submitted to the City of Bellingham on June 20, 2016.
17	Local Permitting Substantive Compliance Letter (02-2013)	City of Bellingham	Dredging activities will be conducted in substantive compliance with the conditions described in Section 27.G, Dredging.	3-6	Use Activity Regulations in Section 27.G., Dredging	Y	
18	Local Permitting Substantive Compliance Letter (02-2013)	City of Bellingham	Construction of bulkheads will be conducted in substantive compliance with the conditions described in Section 27.E., Bulkheads.	6-7	Use Activity Regulations in Section 27.E., Bulkheads	Y	
19	Local Permitting Substantive Compliance Letter (02-2013)	City of Bellingham	The project will be substantively compliant with the fish and wildlife habitat conservation areas performance standards pursuant to Bellingham Municipal Code 16.55.490 and 16.55.500.	8-11	Fish and Wildlife Habitat Conservation Areas: 16.55.490 and 16.55.500	Y	
20	Local Permitting Substantive Compliance Letter (02-2013)	City of Bellingham	The project will be substantively compliant with the geologically hazardous areas performance standards pursuant to Bellingham Municipal Code 16.55.450.	11	Geologically Hazardous Areas: 16.55.450 - Performance Standards - General Requirements	Y	
21	Local Permitting Substantive Compliance Letter (02-2013)	City of Bellingham	The project will be substantively compliant with the performance standards for specific hazards pursuant to Bellingham Municipal Code 16.55.460.	11-13	16.55.460 - Performance Standards - Specific Hazards	Y	

**Table B1
Permit Compliance Checklist**

Item Number	Source (date)	Agency	Commitment	Source Page Number(s)	Source Paragraph, Bullet, or Reference Number	Commitment Met (Y/N)	Notes
22	Construction Stormwater General Permit (04-2015)	Washington State Department of Ecology	The Port will adhere to the performance and reporting requirements outlined in the Construction Stormwater General Permit and Stormwater Pollution Prevention Plan prepared for the project.	1-2	NA	Y	Stormwater management activities are described in Appendix K.
23	Waste Discharge Permit (12-2014)	Washington State Department of Ecology	The Port will adhere to the special and general conditions outlined in the Waste Discharge Permit issued for the project.	1-36	NA	Y	
24	Memorandum of Agreement (01-2015)	U.S. Army Corps of Engineers	The Port shall construct the proposed alterations to the Bellingham Harbor - Whatcom Waterway Federal Navigation Project in accordance with the contracted design drawings and analyses dated February 2013, provided by the Port (or subsequent revisions as coordinated with the U.S. Army Corps of Engineers).	2	Article II, Condition 2	Y	
25	Memorandum of Agreement (01-2015)	U.S. Army Corps of Engineers	The Port is fully responsible for all construction efforts including dredging and placement of the residual management cap, on-going cap maintenance, removal and disposal of all dredged material, post construction monitoring efforts, and all associated activities as depicted in the design drawings and analyses dated February 2013.	2	Article II, Condition 3	Y	
26	Memorandum of Agreement (01-2015)	U.S. Army Corps of Engineers	The Port is responsible for obtaining all necessary local, state, and federal permits related to the construction, operation and maintenance, and/or removal and disposal of all dredged material associated with the MTCA cleanup project and the Federal Navigation Channel.	2	Article II, Condition 4	Y	
27	Memorandum of Agreement (01-2015)	U.S. Army Corps of Engineers	The Port shall provide as-built drawings and legal descriptions of the constructed alterations made to the Bellingham Harbor - Whatcom Waterway Federal Navigation Project to the USACE within 6 months of completion of construction of the alterations to the project.	2	Article II, Condition 5	Pending	Documents to be provided following Ecology review of the as-built drawings.

**Table B1
Permit Compliance Checklist**

Item Number	Source (date)	Agency	Commitment	Source Page Number(s)	Source Paragraph, Bullet, or Reference Number	Commitment Met (Y/N)	Notes
28	Memorandum of Agreement (01-2015)	U.S. Army Corps of Engineers	To the extent permitted by law, the Port saves and holds harmless the USACE from all damages to the Bellingham Harbor - Whatcom Waterway Federal Navigation Channel that arises from its MTCA cleanup activities and the activities associated with the construction of the design drawings and analyses as detailed in the "Engineering Design Report: Whatcom Waterway Cleanup In Phase 1 Site Areas" dated February 2013, which includes, but is not limited to, the dredging and residual management cap placement, cap operation and maintenance, and removal and disposal of dredged material within the Federal Navigation Channel, as depicted.	2	Article II, Condition 6	Y	
29	Memorandum of Agreement (01-2015)	U.S. Army Corps of Engineers	The Port shall coordinate with the U.S. Coast Guard to ensure navigational safety.	2	Article II, Condition 7	Y	
30	Memorandum of Agreement (01-2015)	U.S. Army Corps of Engineers	The Port shall provide notice with the Bellingham Harbor Operations Manager 10 days prior to commencing work within the Whatcom Waterway Federal Navigation Channel.	2	Article II, Condition 8	Y	
31	Memorandum of Agreement (01-2015)	U.S. Army Corps of Engineers	Tribal Coordination. The Port shall coordinate and construct all works in accordance with all permits and associated conditions. The Port must contact and coordinate with the Lummi Indian Nation consistent with the terms and conditions of the Nationwide #38 permit verification letter for the Bellingham Harbor - Whatcom Waterway Federal Navigation Project.	2-3	Article II, Condition 9	Y	
24	Nationwide Permit 38 (01-2015)	U.S. Army Corps of Engineers	Must implement and abide by the Endangered Species Act (ESA) requirements and/or agreements set forth in the document titled, "Biological Assessment, Whatcom Waterway Cleanup in Phase 1 Site Areas," dated October 2012, and the addenda dated March 15, 2013, in their entirety.	1	Condition a	Y	
25	Nationwide Permit 38 (01-2015)	U.S. Army Corps of Engineers	The Port will adhere to in-water work window conditions outlined in the Nationwide Permit 38 (condition b) and subsequent updates.	2-3	Condition b	Y	A 2 week in-water work window extension was approved by the U.S. Army Corps of Engineers for dredging of contaminated sediments and placement of clean engineering capping materials and vibratory pile driving.
26	Nationwide Permit 38 (01-2015)	U.S. Army Corps of Engineers	Prior to conducting the authorized work, the applicant must contact the Lummi Nation Harvest Management Office (Mr. Ben Starkhouse) at (360) 312-2300 for a pre-construction meeting with the Lummi Nation Harvest Office.	3	Condition c	Y	

**Table B1
Permit Compliance Checklist**

Item Number	Source (date)	Agency	Commitment	Source Page Number(s)	Source Paragraph, Bullet, or Reference Number	Commitment Met (Y/N)	Notes
27	Nationwide Permit 38 (01-2015)	U.S. Army Corps of Engineers	During the authorized work the applicant must provide the Lummi Nation Harvest Management Office with (a) written bi-weekly project work notifications (timing and activities anticipated), and (b) written notification of any material delay or modification of the schedule. During the authorized work, the applicant must be available to meet with the Lummi Nation Harvest Management Office at its request.	3	Condition d	Y	
28	Nationwide Permit 38 (01-2015)	U.S. Army Corps of Engineers	The applicant must implement all monitoring provisions in Appendix G (Compliance Monitoring and Contingency Response Plan including the supplemental provisions contained in the Amendment to Appendix G dated November 2014) and Appendix L (Water Quality Monitoring Plan dated November 2014) of the Whatcom Waterway Engineering Design Report.	3	Condition e	Y	Water quality monitoring data is available in Appendix E. Construction and post-construction (Year 0) monitoring was conducted in compliance with the Compliance Monitoring and Contingency Response Plan.
29	Model Toxic Control Act Substantive Comments (12-2012)	Washington Department of Fish and Wildlife	The project will be substantively compliant with the timing limitations conditions for the protection of migrating juvenile salmonids. [or approved extensions of the work window]	2	Condition 6	Y	A 2 week in-water work window extension was approved by the U.S. Army Corps of Engineers for dredging of contaminated sediments and placement of clean engineering capping materials and vibratory pile driving.
30	Model Toxic Control Act Substantive Comments (12-2012)	Washington Department of Fish and Wildlife	The Area Habitat Biologist (AHB) listed below shall be notified of the project start date.	2	Condition 7	Y	
31	Model Toxic Control Act Substantive Comments (12-2012)	Washington Department of Fish and Wildlife	The project will be substantively compliant with the eelgrass habitat protection conditions for the Log Pond and Berth 1 areas.	2	Conditions 8 and 9	Y	
32	Model Toxic Control Act Substantive Comments (12-2012)	Washington Department of Fish and Wildlife	The project will be substantively compliant with the dredging conditions during construction.	2-3	Conditions 10-24	Y	
33	Model Toxic Control Act Substantive Comments (12-2012)	Washington Department of Fish and Wildlife	The project will be substantively compliant with the pile removal conditions during construction.	3-6	Conditions 25-51	Y	
34	Model Toxic Control Act Substantive Comments (12-2012)	Washington Department of Fish and Wildlife	The project will be substantively compliant with the shoreline modifications conditions during construction.	6-7	Conditions 52-73	Y	
35	Model Toxic Control Act Substantive Comments (12-2012)	Washington Department of Fish and Wildlife	The project will be substantively compliant with the new and replacement infrastructure conditions during construction.	7-9	Conditions 74-92	Y	

**Table B1
Permit Compliance Checklist**

Item Number	Source (date)	Agency	Commitment	Source Page Number(s)	Source Paragraph, Bullet, or Reference Number	Commitment Met (Y/N)	Notes
36	Model Toxic Control Act Substantive Comments (12-2012)	Washington Department of Fish and Wildlife	The project will be substantively compliant with the general conditions during construction.	9	Conditions 93-95	Y	
<i>Colony Wharf Float Project</i>							
37	Letter of Permission (09-2015)	U.S. Army Corps of Engineers	No residue from construction activity shall be allowed to enter waters of the U. S. The permittee must install and maintain debris collection measures until all project operations are complete.	1	Condition b	Y	
38	Letter of Permission (09-2015)	U.S. Army Corps of Engineers	You must implement and abide by the Endangered Species Act (ESA) requirements and/or agreements set forth in the document titled, "Biological Assessment, Whatcom Waterway Cleanup in Phase 1 Site Areas," dated October 2012, the addenda dated March 15, 2013, and the memorandum dated June 3, 2015, in their entirety.	1	Condition c	Y	
39	Hydraulic Project Approval (09-2015)	Washington Department of Fish and Wildlife	Remove the existing pier, ramp, and float structure(s) from waters of the state. Do not relocate the structure(s) within waters of the state without written authorization from Washington Department of Fish and Wildlife.	2	Condition 9	Y	
40	Hydraulic Project Approval (09-2015)	Washington Department of Fish and Wildlife	The project will comply with the ramp and float structure conditions during construction.	2	Conditions 10-17	Y	
41	Hydraulic Project Approval (09-2015)	Washington Department of Fish and Wildlife	The project will comply with the pile driving conditions during construction.	2-3	Conditions 18-23	Y	
42	Hydraulic Project Approval (09-2015)	Washington Department of Fish and Wildlife	Project activities must not adversely impact seagrass and kelp (e.g., barge must not ground, anchor, or spud down; equipment must not operate; and other project activities must not occur in seagrass and kelp).	3	Condition 24	Y	
43	Hydraulic Project Approval (09-2015)	Washington Department of Fish and Wildlife	Remove all trash and unauthorized fill in the project area, including concrete blocks or pieces, bricks, asphalt, metal, treated wood, glass, floating debris, and paper, that is waterward of the ordinary high water line and deposit upland.	3	Condition 25	Y	