

Soil Protection Exhibit

Cascade Renewable Transmission

Wasco, Hood River, and Multnomah Counties, Oregon

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Prepared for
Cascade Renewable Transmission, LLC

Submitted to
Oregon Energy Facility Siting Council

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Attachments

- Attachment 1. Example SPCC Plan from the Hudson Project
- Attachment 2. Sediment Sampling and Analysis Plan (SAP) and USACE Sediment Determination Memo (SDM)
- Attachment 3. Draft NPDES 1200-C Erosion and Sediment Control Plan

Acronyms and Abbreviations

Applicant	Cascade Renewable Transmission, LLC (CRT)
BMP	best management practice
ESCP	Erosion and Sediment Control Plan
HDD	horizontal directional drilling
HVAC	high-voltage alternating current
HVDC	high-voltage direct current
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination system
NRCS	Natural Resources Conservation Service
OAR	Oregon Administrative Rules
ODEQ	Oregon Department of Environmental Quality
PSET	Portland Sediment Evaluation Team
ROW	right-of-way
SAP	Sediment Sampling and Analysis Plan
SEF	Sediment Evaluation Framework for the Pacific Northwest
SPCC Plan	spill prevention, control, and countermeasures plan
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service

1 Introduction

This exhibit describes construction materials and soil conditions for the Cascade Renewable Transmission Project's proposed high-voltage direct current (HVDC) (400-kilovolt [kV]), 1,100-megawatt (MW) electric transmission facility (Facility), as required to meet the submittal requirements in Oregon Administrative Rules (OAR) 345-022-0022.

2 Analysis Area

The Project Order identifies the analysis area for this exhibit as the area within the site boundary, which is defined in detail in the Background Information Exhibit and shown in Figure 1 in Section 13. However, most of the site boundary is within the Columbia River, which as a water body, has no soil unit(s) associated with it, according to Natural Resources Conservation Service (NRCS) data. Therefore, the analysis of soils in this exhibit is limited to the on-land portions of the site boundary with associated NRCS data.

3 Materials Inventory (OAR 345-022-0022(1) and (2)(a)(A))

- (1) To issue a site certificate, the Council must find that the design, construction and operation of the facility, taking into account mitigation, are not likely to result in a significant adverse impact to soils including, but not limited to, erosion and chemical factors such as salt deposition from cooling towers, land application of liquid effluent, and chemical spills.*
- (2) To assist the Council in determining whether the standard outlined in (1) has been met, the Applicant must submit, the Applicant must submit:*
 - (a) A materials analysis, including:*
 - (A) An inventory of substantial quantities of industrial materials flowing into and out of the proposed facility during construction and operation;*

RESPONSE

3.1 Construction Materials Inventory

The materials inventory covers each of the Facility components, including converter stations, high-voltage alternating current (HVAC) transmission, and HVDC transmission. The primary materials include the converter station components, transmission cables, fiber optic communication cables, conductor wires, and insulators and connecting hardware.

Most construction materials will be delivered directly to the location where they are being used. As identified in the Background Information Exhibit, the converter stations would be built at the same time. Concrete supplies in the vicinity of the Facility converter station locations would be determined by the construction contractor. When necessary, additional materials would be stored within the

converter stations until the Facility is complete. Material quantities presented in this exhibit are conservative estimates of the greatest quantities expected.

Table 1 provides an inventory of industrial materials proposed for use within the Facility area in substantial quantities during construction.

Table 1. Construction Material Inventory

Material	Quantity	Units	Ultimate Disposition
Eastern Converter Station			
Alternating current (AC) surge arrester	20	each	Within converter station
AC radio interference (RI) filter capacitor	3	each	Within converter station
AC RI filter reactor	3	each	Within converter station
AC disconnect with and without earthing switch (ES)	7	each	Within converter station
AC circuit breaker	3	each	Within converter station
AC current transformer	4	each	Within converter station
AC insertion resistor	3	each	Within converter station
AC voltage divider	6	each	Within converter station
AC current transformer including filter current transformer (CT)	1	each	Within converter station
AC neutral earthing reactor	1	each	Within converter station
Converter transformer phase I	3	each	Within converter station
AC current transformer (inside transformer busing turrets)	9	each	Within converter station
AC star point reactors	1	each	Within converter station
AC star point resistor	1	each	Within converter station
Zero flux current transformer	14	each	Within converter station
RI filter reactor	3	each	Within converter station
AC bushing	3	each	Within converter station
Earthing switch	9	each	Within converter station
Direct current (DC) bushing	6	each	Within converter station
Converter reactor	3	each	Within converter station
DC surge arrester	4	each	Within converter station
DC voltage divider	2	each	Within converter station
DC disconnect with and without ES	2	each	Within converter station
DC line arrester, positive phase	1	each	Within converter station
DC line arrester, negative phase	1	each	Within converter station
Voltage source conversion (VSC) converter module	6	each	Within converter station
Overhead transmission structure	1	each	Within converter station
Concrete	18,000	cubic yards	Foundations within converter station
500 kV AC Overhead (eastern converter station to Big Eddy substation)			
1431 aluminum conductor steel-reinforced cable (ACSR)	1,500	feet	Aboveground structure
400 kV HVDC Transmission On Land—Eastern Converter Station to Edge of Columbia River			
HV cable	47,520	feet	Below ground
HV terminations	2	each	Below ground
HV cable transition joints	2	each	Below ground

Material	Quantity	Units	Ultimate Disposition
HV cable joints	22	each	Below ground
Ground plate box	1	each	Below ground
Single-phase earth box	2	each	Below ground
Bonding cable	200	feet	Below ground
Bare ground cable	150	feet	Below ground
Ground rods	4	each	Below ground
FO cable	23,760	feet	Below ground
PE 8-inch conduit	47,520	feet	Below ground
PE 2-inch conduit	23,760	feet	Below ground
FO splice vaults	5	each	Below ground
FO splices	5	each	Below ground
Fluidized thermal backfill (FTB) (thermal concrete)	2,933	cubic yards	Below ground
Asphalt	1,629	cubic yards	Aboveground for road repair
Aggregate	2,151	cubic yards	Below ground
Cable clamps	8	each	Below ground
HDD drilling fluid (mostly water)	363,000	gallons	Recycled to the extent practical, then landfilled
400 kV HVDC Transmission In-River			
HV cable	841,400	feet	In-water, in bed of river
FO cable	420,700	feet	In-water, in bed of river
PE 18-inch conduit	10,200	feet	In-water, in bed of river
PE 4-inch conduit	5,100	feet	In-water, in bed of river
Concrete mattress, 8 feet by 20 feet	50	each	In-water, on bed of river
Anchor block	12	each	In-water, in bed of river
400 kV HVDC Transmission On Land—In Washington (around Bonneville Lock & Dam)			
HV cable	77,600	feet	Below ground
HV cable transition joints	4	each	Below ground
HV cable joints	38	each	Below ground
Ground plate box	2	each	Below ground
Bonding cable	200	feet	Below ground
Bare ground cable	200	feet	Below ground
Ground rods	8	each	Below ground
FO cable	38,800	feet	Below ground
PE 8-inch conduit	77,600	feet	Below ground
PE 2-inch conduit	38,800	feet	Below ground
FO splice vaults	9	each	Below ground
FO splices	9	each	Below ground
FTB	4,666	cubic yards	Below ground
Asphalt	2,593	cubic yards	Aboveground for road repair
Aggregate	3,422	cubic yards	Below ground

Material	Quantity	Units	Ultimate Disposition
HDD drilling fluid (mostly water)	242,000	gallons	Recycled to the extent practical, then landfilled
400 kV HVDC Transmission On Land—Hayden Island to Western Converter Station			
HV cable	43,020	feet	Below ground
HV terminations	2	each	Below ground
HV cable transition joints	2	each	Below ground
HV cable joints	20	each	Below ground
Ground plate box	1	each	Below ground
Single-phase earth box	2	each	Below ground
Bonding cable	100	feet	Below ground
Bare ground cable	100	feet	Below ground
Ground rods	4	each	Below ground
FO cable	21,500	feet	Below ground
PE 8-inch conduit	43,020	feet	Below ground
PE 2-inch conduit	21,510	feet	Below ground
FO splice vaults	5	each	Below ground
FO splices	5	each	Below ground
FTB	2,474	cubic yards	Below ground
Asphalt	704	cubic yards	Aboveground for road repair
Aggregate	929	cubic yards	Below ground
Cable clamps	8	each	Below ground
HDD drilling fluid (mostly water)	242,000	gallons	Recycled to the extent practical, then landfilled
Western Converter Station			
AC surge arrester	20	each	Within converter station
AC RI filter capacitor	3	each	Within converter station
AC RI filter reactor	3	each	Within converter station
AC disconnect with and without ES	7	each	Within converter station
AC circuit breaker	3	each	Within converter station
AC current transformer	4	each	Within converter station
AC insertion resistor	3	each	Within converter station
AC voltage divider	6	each	Within converter station
AC current transformer including filter CT	1	each	Within converter station
AC neutral earthing reactor	1	each	Within converter station
Converter transformer phase I	3	each	Within converter station
AC current transformer (inside transformer busing turrets)	9	each	Within converter station
AC star point reactors	1	each	Within converter station
AC star point resistor	1	each	Within converter station
Zero flux current transformer	14	each	Within converter station
RI filter reactor	3	each	Within converter station
AC bushing	3	each	Within converter station
Earthing switch	9	each	Within converter station

Material	Quantity	Units	Ultimate Disposition
DC bushing	6	each	Within converter station
Converter reactor	3	each	Within converter station
DC surge arrestor	4	each	Within converter station
DC voltage divider	2	each	Within converter station
DC disconnecter with and without ES	2	each	Within converter station
DC line arrester, positive phase	1	each	Within converter station
DC line arrester, negative phase	1	each	Within converter station
VSC converter module	6	each	Within converter station
Concrete	18,000	cubic yards	Foundations within converter station
230 kV HVAC—Western Converter Station to Harborton Substation			
High voltage (HV) cable	86,400	feet	Below ground
HV terminations	12	each	Below ground
HV cable joints	36	each	Below ground
Three-phase link box	12	each	Below ground
Single-phase link box	12	each	Below ground
Ground continuity conductor (GCC) cable	28,800	feet	Below ground
Bonding cable	1,800	feet	Below ground
Bare ground cable	1,500	feet	Below ground
Ground rods	36	each	Below ground
Fiber optic (FO) cable	28,800	feet	Below ground
Link box vaults with metal cover	12	each	Underground vault, metal cover at ground level
Polyethylene (PE) 8-inch conduit	86,400	feet	Below ground
PE 2-inch conduit	28,800	feet	Below ground
FO splice vaults	3	each	Below ground
FO splices	6	each	Below ground
FTB	8,200	cubic yards	Below ground
Asphalt	674	cubic yards	Aboveground for road repair
Aggregate	890	cubic yards	Below ground
Cable clamps	48	each	Below ground
HDD drilling fluid (mostly water)	121,000	gallons	Recycled to the extent practical, then landfilled

Abbreviations: HVAC=high-voltage alternating current; HVDC=high-voltage direct current; kV=kilovolt

3.2 Operational Materials Inventory

Industrial materials would be stored at the Facility during operations. Small quantities of hazardous materials would be contained in equipment at each converter station, including transformer electric insulating fluid, capacitor fluid, and lead and sulfuric acid in batteries. Transformer electric insulating fluid could also be stored in drums on site in secondary containment. A spill countermeasure, control, and prevention plan (SPCC Plan) would be prepared and maintained, as warranted, by state and federal requirements.

Table 2 provides an anticipated inventory of cable system spares that would be stored at a converter station (likely the eastern converter station). Table 3 provides an anticipated inventory of industrial materials to be used within the project area during operations. The inventory in Table 3 includes estimated quantities based on an existing converter station that an affiliate of the Applicant operates and maintains.

Table 2. Operational Materials Spares Inventory

Material	Quantity	Units	Ultimate Disposition
High voltage direct current (HVDC) terminations	1	each	Stored at a converter station
High voltage alternating current (HVAC) terminations	1	each	Stored at a converter station
HVDC land cable joints	2	each	Stored at a converter station
HVAC Cable Joints	2	each	Stored at a converter station
Land fiber optic (FO) splice cannisters	2	each	Stored at a converter station
Link box	1	each	Stored at a converter station
HVDC submarine cable joints	4	each	Stored at a converter station
FO submarine cable joints	2	each	Stored at a converter station
HVDC transition cable joints (if submarine joints cannot be used)	2	each	Stored at a converter station
Longest section length of direct current (DC) land cable	3,000	feet	Stored at a converter station
Longest section length of alternating current (AC) land cable	3,000	feet	Stored at a converter station
Longest section length of DC FO land cable	3,000	feet	Stored at a converter station
Longest section length of AC FO land cable (if different)	3,000	feet	Stored at a converter station
Two lengths of HVDC submarine cable (length needed for deepest repair)	2,000	feet	Stored at a converter station
One length of FO submarine cable (length needed for deepest repair)	2,000	feet	Stored at a converter station
Converter transformer phase I	2	-	One within each converter station

Table 3. Operational Material Chemical Inventory at Each Converter Station

Chemical	Location	Container Type	CAS #	Mixture or Pure	# Units	Total gal (approx)	Specific Gravity	lbs/ gal	Total lbs (approx)	Hazards	Subject to Tier 2 Reporting	Notes	Subject to SPCC
Eastern Converter Station													
Transformer Oil/ Electric Insulating Oil	Outside - power transformers, station svc transformers	electrical equipment	64742-53-6	virtually pure	several (see SPCC Plan)	110,900	0.91	7.59	841,731	acute, chronic	Yes	--	Yes
Transformer Oil/ Electric Insulating Oil	Spare parts building	steel drums	64742-53-6	virtually pure	assumes 2 drums	110	0.91	7.59	835	acute, chronic	Yes	--	Yes
Capacitor Fluid – Edisol ST	Switchyard and spares	electrical equipment	see MSDS	mixture	1,732 plus 60 spares	11,283	1.0	8.34	94,100	acute, chronic	Yes	each main component = 33 - 64%	No <55 gal each
Sulfuric Acid - EHS	In batteries, in battery rooms	sealed gel-type battery	7664-93-9	pure	2 @ 60 cells each	--	--	--	4,738	water reactive, acute, chronic	Yes	battery weight = 515 lbs/3-cell set. H2SO4 max 23%	No
Lead	In batteries, in battery rooms	sealed gel-type battery	7439-92-1	inorganic/ pure	2 @ 60 cells each	--	--	--	15,862	acute, chronic	Yes	battery weight = 515 lbs/3-cell set. Lead max 77%	No
Ethylene Glycol	AC Filter System	other - heat exchanger	107-21-1	50% mixture w/ H2O	2	880	1.1	9.17	8,070	acute, chronic	Yes	Yes - Environmental Hazardous Substance - report as pure, per revised USEPA regulations	No
Ethylene Glycol	Valve Hall System	other - heat exchanger	107-21-1	100% but later mixed 50% w/ H2O	1	475	1.1	9.17	4,356	acute, chronic	Yes	Yes - Environmental Hazardous Substance - report as pure, per revised USEPA regulations	No
Ethylene Glycol	Valve Hall	plastic drums	107-21-1	pure	assume 2 drums	110	1.1	9.17	1,009	acute, chronic	Yes	Yes - Environmental Hazardous Substance - report as pure, per revised USEPA regulations	No
R-22 (chlorodifluoromethane)	Control bldg. HVAC system	HVAC system	75-45-6	pure	5	--	--	--	54	acute	No - below threshold	3 units @ 12 lbs, 2 units @ 9 lbs	No
SF6 - Sulfur Hexafluoride	Breakers, TR Bushings	electrical equipment	2551-62-4	pure	7 breakers, 8 bushings	--	--	--	1,155	acute	No - below threshold	62 kg per breaker + approx 1 large cylinder per 2 bushings	No
SF6 - Sulfur Hexafluoride	spare parts building	compressed cylinders	2551-62-4	pure	2	--	--	--	100	pressure, acute	No - below threshold	assume 2 spare large cylinders, assume net weight = 50 lbs	No
Hydraulic Fluid	Elevator	hydraulic system	64742-47-8	mixture	1	174	0.87	7.25	1,262	fire, acute	No - below threshold	other CAS #s: 64741-88-4, 64742-54-7, 64742-47-8	Yes
Western Converter Station													
Transformer Oil/ Electric Insulating Oil	Outside - power transformers, station svc transformers	electrical equipment	64742-53-6	virtually pure	several (see SPCC Plan)	110,900	0.91	7.59	841,731	acute, chronic	Yes	--	Yes
Transformer Oil/ Electric Insulating Oil	Spare parts building	steel drums	64742-53-6	virtually pure	assumes 2 drums	110	0.91	7.59	835	acute, chronic	Yes	--	Yes
Capacitor Fluid - Edisol ST	Switchyard and spares	electrical equipment	see MSDS	mixture	1,732 plus 60 spares	11,283	1.0	8.34	94,100	acute, chronic	Yes	each main component = 33 - 64%	No <55 gal each
Sulfuric Acid - EHS	In batteries, in battery rooms	sealed gel-type battery	7664-93-9	pure	2 @ 60 cells each	--	--	--	4,738	water reactive, acute, chronic	Yes	battery weight = 515 lbs/3-cell set. H2SO4 max 23%	No
Lead	In batteries, in battery rooms	sealed gel-type battery	7439-92-1	inorganic/ pure	2 @ 60 cells each	--	--	--	15,862	acute, chronic	Yes	battery weight = 515 lbs/3-cell set. Lead max 77%	No
Ethylene Glycol	AC Filter System	other - heat exchanger	107-21-1	50% mixture w/ H2O	2	880	1.1	9.17	8,070	acute, chronic	Yes	Yes - Environmental Hazardous Substance - report as pure, per revised USEPA regulations	No
Ethylene Glycol	Valve Hall System	other - heat exchanger	107-21-1	100% but later mixed 50% w/ H2O	1	475	1.1	9.17	4,356	acute, chronic	Yes	Yes - Environmental Hazardous Substance - report as pure, per revised USEPA regulations	No
Ethylene Glycol	Valve Hall	plastic drums	107-21-1	pure	assume 2 drums	110	1.1	9.17	1,009	acute, chronic	Yes	Yes - Environmental Hazardous Substance - report as pure, per revised USEPA regulations	No
R-22 (chlorodifluoromethane)	Control bldg HVAC system	HVAC system	75-45-6	pure	5	--	--	--	54	acute	No - below threshold	3 units @ 12 lbs, 2 units @ 9 lbs	No
SF6 - Sulfur Hexafluoride	Breakers, TR Bushings	electrical equipment	2551-62-4	pure	7 breakers, 8 bushings	--	--	--	1,155	acute	No - below threshold	62 kg per breaker + approx 1 large cylinder per 2 bushings	No
SF6 - Sulfur Hexafluoride	spare parts building	compressed cylinders	2551-62-4	pure	2	--	--	--	100	pressure, acute	No - below threshold	assume 2 spare large cylinders, assume net weight = 50 lbs	No
Hydraulic Fluid	Elevator	hydraulic system	64742-47-8	mixture	1	174	0.87	7.25	1,262	fire, acute	No - below threshold	other CAS #s: 64741-88-4, 64742-54-7, 64742-47-8	Yes

Abbreviations: AC=air conditioning; approx.=approximately; CAS=case number; EHS=extremely hazardous substance; USEPA=U.S. Environmental Protection Agency; gal=gallons; H2O=water; H2SO4=sulfuric acid; HVAC=heating, ventilation, and air conditioning; kg=kilograms; lbs=pounds; SPCC=spill prevention, control, and countermeasures plan; TR=transformer

4 Hazardous Materials Handling and Management (OAR 345-022-0022(2)(a)(B))

(B) The applicant's plans to manage hazardous substances during construction and operation, including measures to prevent and contain spills;

RESPONSE

4.1 Construction Materials

During Facility construction, quantities of hazardous materials identified in Table 1 could be used or stored in the converter station construction yards and in the temporary horizontal directional drilling (HDD) work area.

The Applicant anticipates that up to 2,500 gallons of diesel fuel and 2,500 gallons of gasoline could be delivered to the site for fueling of construction equipment while the converter stations are constructed. Fuel would be delivered to the construction yard by a licensed specialized tanker vehicle on an as-needed basis. There would be no substantial quantities of lubricating oils, hydraulic fluid for construction equipment, or other hazardous materials maintained on site during construction. Lubricating oil or hydraulic fluids for construction equipment would be brought on site on an as-needed basis for equipment maintenance by a licensed contractor using a specialized vehicle, and waste oils removed by the same maintenance contractor. Transformer oils would arrive on an as-needed basis and be transferred into the receiving components by a licensed contractor; none would be stored on site during construction. Hazardous identified/classified fluids transported onto site or transported from site will be performed by a licensed transporter utilizing the required hazardous material handler/transporter manifest documentation. Copies of all related paperwork will be filed and retained per local and federal guidelines.

Hazardous materials would be used in a manner that is protective of human health and the environment and complies with all applicable local, state, and federal environmental laws and regulations. Due to the potential quantities of hazardous materials that could be present during construction, the construction contractor would be required to develop a SPCC Plan prior to beginning Facility construction.

An example SPCC Plan from the Applicant's affiliated Hudson Project, specific to the converter station is presented in Attachment 1. Prior to construction, the Applicant would submit an SPCC Plan similar to the example shown in Attachment 1 to Oregon Department of Environmental Quality (ODEQ) for approval, which would be updated to include operational measures.

The SPCC Plans would apply during construction and operation and outline preventative measures and practices to reduce the likelihood of an accidental release of a hazardous or regulated liquid. In the event such a release occurs, the SPCC Plan procedures would expedite the response to and remediation of the release.

Accidental release of hazardous materials would be prevented or minimized through proper containment during use and transportation to the Facility site, and observance of appropriate handling procedures during transfer from the delivery vehicle to the equipment being filled.

Equipment oil-filling, fueling, or maintenance activities would take place a substantial distance from waterways or wetlands to prevent water quality impacts in the event of an accidental release. Any oily waste, rags, or dirty or hazardous solid waste would be collected in sealable drums at the construction yards, to be removed for recycling or disposal by a licensed contractor.

In the unlikely event of an accidental hazardous materials release, any spill or release would be cleaned up and the contaminated soil or other materials disposed of and treated according to applicable regulations. See the Background Information Exhibit for a listing of applicable regulations. Spill kits containing items such as absorbent pads would be located on equipment and in on-site temporary storage facilities to respond to accidental spills, as outlined in the SPCC Plan.

In addition, an example HDD Inadvertent Returns (IR) Contingency Plan has been developed and included as an attachment to the Waste Minimization Exhibit. The goal of the IR Contingency Plan is to identify measures that will be taken prior to or during construction to control, contain, and collect inadvertent drilling fluid returns and minimize impacts to environmentally sensitive areas and soils.

The Project Order requires that this exhibit include a draft monitoring plan for drilling and dredging spoils that describes how the Applicant will sample and screen soils for naturally occurring and manmade radionuclides and other potentially hazardous contaminants prior to disposal. The Applicant prepared a Sediment Sampling and Analysis Plan (SAP) in accordance with the May 2018 Sediment Evaluation Framework for the Pacific Northwest (SEF), which the interagency Portland Sediment Evaluation Team (PSET) reviewed and approved. Members of the PSET include the U.S. Army Corps of Engineers (USACE) (lead), Environmental Protection Agency (USEPA) Region 10 (co-lead), Washington State Department of Ecology, ODEQ, National Marine Fisheries Service (NMFS), and the U.S. Fish and Wildlife Service (USFWS). The Applicant conducted sediment sampling in the Columbia River in coordination with the interagency PSET to analyze sediment type and determine if river sediments are contaminated those areas of proposed work. The results of that study confirmed no manmade radionuclides and other potentially hazardous contaminants were present. The SAP and USACE Sediment Determination Memo (SDM) are included as Attachment 2. In addition, the proposed Project has been sited to avoid the USACE spoils pile on Hayden Island, which is known to contain contaminants of concern.

4.2 Operational Materials

During operations, quantities of hazardous materials identified above in Table 2 and Table 3 could be used or stored at the converter station. Up to 120 lead-acid or sulfuric-acid batteries (60 batteries per battery bank) would be used for backup power at each converter station. The final number and size of batteries would be determined during final design. Each battery would contain the acid in the factory-sealed, maintenance-free sealed leakproof battery container. If sulfuric-acid batteries are used, secondary containment would be used, as required by regulation. The batteries would be replaced every 10 years, if not earlier, as indicated by wear. Replacement of batteries would be handled by a qualified contractor who would adhere to applicable regulations for transport and disposal.

Secondary containment is optional for the transformers because they are classified as qualified oil-filled operational equipment under the USEPA amended SPCC rule, issued in 2006 (EPA-550-F-06-008). Per this amended rule, instead of providing secondary containment for qualified oil-filled operational equipment, an owner or operator may prepare an oil spill contingency plan and a written

commitment of manpower, equipment, and materials to quickly control and remove discharged oil; the plan must include an inspection or monitoring program for the equipment to detect a failure and/or discharge. Another option is to install the transformers on foundations that provide secondary containment. The Applicant plans to install secondary containment for the converter transformers, and the specific design would be determined prior to construction of the converter stations. All secondary containment would meet USEPA requirements to have sufficient capacity to contain at least 10 percent of the total volume of the primary containers or 100 percent of the volume of the largest container, whichever is greater. During operation, transformer oils would arrive on an as-needed basis and be transferred into the receiving components by a licensed contractor; none would be stored on site during operation. Hazardous identified/classified fluids transported onto site or transported from site will be performed by a licensed transporter utilizing the required hazardous material handler/transporter manifest documentation. This documentation tracks the waste from “cradle to grave” and will identify the disposal facility. Copies of all related paperwork will be filed and retained per local and federal guidelines.

No fueling or refueling would occur during operations; therefore, no quantities of fuel are identified in Table 3.

Adherence to the requirements and regulations will minimize safety hazards related to transport, use, or disposal of batteries; this includes personnel training, safe interim storage, and segregation from other potential waste streams.

Hazardous materials would be used in a manner that is protective of human health and the environment, and complies with all applicable local, state, and federal environmental laws and regulations.

5 Non-Hazardous Waste Management (OAR 345-022-0022(2)(a)(C))

(C) The applicant's plans to manage non-hazardous waste materials during construction and operation.

RESPONSE

The Applicant will fully comply with applicable waste handling and disposal regulations on lands associated with the Facility, during both construction and operations. Solid waste would be stored in a manner that does not constitute a fire, health, or safety hazard until such time as it could be hauled off for recycling or disposal, as appropriate. The Waste Minimization Exhibit provides details on the types and amounts of waste and procedures and systems for handling the disposal of waste materials.

Solid waste materials, such as excess construction materials or scrap steel, would be generated during construction and recycled when feasible. Wood from concrete forms would be reused when possible and then recycled. Excess excavated material would be used to restore ground contours after construction.

As indicated in the Waste Minimization Exhibit, some concrete waste would be created during construction of converter station building foundations and placement of the concrete casing in trenches for underground HVAC and HVDC transmission cables. Concrete truck chutes would be washed down to prevent concrete from hardening within the chutes. In these cases, the concrete wastewater would be washed out into a dedicated concrete washout area. Concrete solids and washout water would be contained within a confined area and hauled away to an appropriate location. Using dedicated concrete washout areas is a common best management practice (BMP) for construction.

During construction, packaging waste such as paper and cardboard, and refuse would be separated, contained in dumpsters, and periodically removed for recycling or disposal. Portable toilets would be provided for on-site sewage handling and serviced by a contractor during construction.

During operations, small quantities of solids waste would be generated at the converter station bathroom and kitchen facilities.

6 Identification and Description of Soil Types (OAR 345-022-0022(2)(b)(A))

(b) Information from reasonably available sources regarding soil conditions and uses in the analysis area, providing evidence to support findings by the Council as required by OAR 345-022-0022, including:

(A) Identification and description of the major soil types in the analysis area;

RESPONSE

Near surface soils within the site boundary, identified using the NRCS web-based soil survey (NRCS 2024), are located on land at the eastern and western ends of the site boundary at the converter stations and where the transmission cables would be placed underground. There are 24 soil units in the on-land portion of the analysis area (Table 4; Figure 1 in Section 13).

The eastern end of the site boundary, in Wasco County, consists of primarily sandy loam to silt loam soils with slopes ranging from flat floodplains to rolling hills and steep ravines including,

- Rock outcrop-Xeropsamments complex (bedrock outcrops) which is durable with a low risk of erodibility and is not prime farmland.
- Wato very fine sandy loam which are thick soils classified as farmland of statewide importance with moderate hazard of erosion and potential for runoff.
- Duart silt loam
- Nansene silt loam
- Quincy loamy fine sand
- Walla Walla silt loam
- Wato very fine sandy loam,

These sandy loam and silt loam soils are classified as farmland of statewide importance which have a slight to moderate hazard for erosion, prime farmland if irrigated with slight hazard for erosion, and not prime farmland which are considered low to moderately low hazard for erosion.

At the western end of the site boundary, in Multnomah County, the soils consist of

- Pilchuck-urban land complex and Pilchuk sand, both classified as farmland of statewide importance with slight erosion risk, low potential for runoff, and low wind erodibility
- Sauvie silt loam, Rafton silt loam, and Faloma silt loam, classified as prime farmland and protected from flooding with moderate erosion potential, and moderate wind erodibility

Table 4. Analysis Area Soil Units

County	Soil Type ID	Soil Unit	Acres in Project	% of Project	Slope Gradient	Setting Within Project Site Boundary	Approximate Thickness (in) ¹	Formation Setting	Geomorphic Description	Wind Erodability ²	K Factor (Hazard for Erosion) ³	Drainage	Depth to Bedrock or Restrictive Feature (in)	Water Table Depth (in)	Runoff Potential ⁴	Hydrologic Group	Farmland Class
Eastern End of Site Boundary																	
Wasco	36	Quincy loamy fine sand, wet	6.37	0.25%	2	0 to 3 percent slopes	60	Sandy alluvium from mixed material	Stream Terraces	2	0.28	Moderately Well Drained	>80	36-60	Low	A	Farmland of Statewide Importance
Wasco	38	Rock outcrop-Rubble land complex	4.87	0.19%	65	30 to 100 percent slopes	60	Unweathered bedrock	Not Rated	Not Rated	Not Rated	Excessively Drained	0	Not Rated	Not Rated	Not Rated	Not Prime Farmland
Wasco	39	Rock outcrop-Xeropsamments complex	54.76	2.12%	15	0 to 30 percent slopes	60	Unweathered bedrock; sandy alluvium	Not Rated/Strath Terraces	Not Rated/2	Not rated/0.15	Well Drained	0/ >80	Not Rated/>80	Not rates/Low	Not Rated/A	Not Prime Farmland
Wasco	20D	Duart silt loam	4.53	0..18%	19	12 to 25 percent slopes	42	Loess and volcanic ash	Hillslopes	5	0.37	Well Drained	20-40	>80	Moderately High	C	Farmland of Statewide Importance
Wasco	21E	Duart complex	9.05	0.35%	32	20 to 55 percent slopes	24-42	Loess and volcanic ash	Hillslopes	5	0.37	Well Drained	10-40	>80	Moderately High to High	C/D	Farmland of Statewide Importance
Wasco	34F	Nansene silt loam	3.53	0.14%	53	35 to 70 percent slopes	66	Loess	Hillslopes	5	0.43	Well Drained	40-80	>80	Moderately Low	B	Not Prime Farmland
Wasco	46B	Walla Walla silt loam	2.15	0.08%	4	3 to 7 percent slopes	82	Loess	Hillslopes	5	0.49	Well Drained	>80	>80	Moderately Low	B	Prime farmland if irrigated
Wasco	46C	Walla Walla silt loam	2.71	0.1%	10	7 to 12 percent slopes	82	Loess	Hillslopes	5	0.49	Well Drained	>80	>80	Moderately Low	B	Farmland of Statewide Importance
Wasco	46D	Walla Walla silt loam	3.26	0.13%	16	12 to 20 percent north slopes	82	Loess	Hillslopes	5	0.49	Well Drained	>80	>80	Moderately Low	B	Farmland of Statewide Importance
Wasco	47D	Walla Walla silt loam	2.96	0.11%	16	12 to 20 percent south slopes	82	Loess	Hillslopes	5	0.49	Well Drained	>80	>80	Moderately Low	B	Farmland of Statewide Importance
Wasco	48E	Walla Walla silt loam	0.08	0.001%	28	20 to 35 percent slopes	82	Loess	Hillslopes	5	0.49	Well Drained	>80	>80	Moderately Low	B	Farmland of Statewide Importance
Wasco	48F	Walla Walla silt loam	1.08	0.04%	43	35 to 50 percent slopes	82	Loess	Hillslopes	5	0.49	Well Drained	>80	>80	Moderately Low	B	Not Prime Farmland
Wasco	55C	Wato very fine sandy loam	52.45	2.03%	10	7 to 12 percent slopes	66	Loess	Hillslopes	3	0.43	Well Drained	>80	>80	Moderately Low	B	Farmland of Statewide Importance
Wasco	55E	Wato very fine sandy loam	1.25	0.05%	28	20 to 35 percent north slopes	66	Loess	Hillslopes	3	0.43	Well Drained	>80	>80	Moderately Low	B	Farmland of Statewide Importance
Wasco	56B	Wind River fine sandy loam	3.35	0.013%	4	0 to 8 percent slopes	61	Old alluvium	Stream Terraces	3	0.28	Well Drained	>80	>80	Low	A	Prime farmland if irrigated
Wasco	56C	Wind River fine sandy loam	1.31	0.05%	10	8 to 12 percent slopes	61	Old alluvium	Stream Terraces	3	0.28	Well Drained	>80	>80	Low	A	Farmland of Statewide Importance

County	Soil Type ID	Soil Unit	Acres in Project	% of Project	Slope Gradient	Setting Within Project Site Boundary	Approximate Thickness (in) ¹	Formation Setting	Geomorphic Description	Wind Erodability ²	K Factor (Hazard for Erosion) ³	Drainage	Depth to Bedrock or Restrictive Feature (in)	Water Table Depth (in)	Runoff Potential ⁴	Hydrologic Group	Farmland Class
Western End of Site Boundary																	
Multnomah	15	Faloma silt loam	0.08	0.001%	2	0 to 3 percent slopes	60	Mixed alluvium	Flood Plains	5	0.43	Poorly Drained	>80	0-12	Moderately Low/High	B/D	Prime Farmland if drained and protected from flooding
Multnomah	31	Pilchuck sand	46.86	1.7%	2	0 to 3 percent slopes	60	Sandy alluvium	Flood Plains	1	0.02	Somewhat Excessively Drained	>80	24-48	Low	A	Farmland of Statewide Importance
Multnomah	39	Rafton Silt Loam	27.54	1.06%	1	0 to 2 percent slopes	60	Recent alluvium with some mixing of volcanic ash	Flood Plains	6	0.43	Very Poorly Drained	>80	0-12	Moderately Low/High	B/D	Prime Farmland if drained and protected from flooding
Multnomah	41	Riverwash	0.06	0.001%	2	0 to 3 percent slopes	60	Not Rated	Flood Plains	1	Not Rated	Poorly Drained	Not Rated	31	Not Rated	Not Rated	Not Prime Farmland
Multnomah	44	Sauvie silt loam	46.36	1.79%	1	0 to 2 percent slopes	60	Recent alluvium with some mixing of volcanic ash	Flood Plains	6	0.43	Poorly Drained	>80	0-12	Moderately High to High	C/D	Prime Farmland if drained and protected from flooding
Multnomah	33A	Pilchuck-Urban land complex	105.91	4.09%	2	0 to 3 percent slopes	>80	Sandy alluvium	Flood Plains	1	0.02	Somewhat Excessively Drained	>80	>80	Low	A	Farmland of Statewide Importance
Multnomah	50A	Urban land	0.11	0.001%	2	0 to 3 percent slopes	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Not Prime Farmland
Clark	W	Water	11,332.58	97%	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Not Prime Farmland

¹Unit thickness based on NRCS profile depth for the mapped unit.

²Wind erodibility from NRCS where 1 is the most susceptible and 8 is the least susceptible to wind erosion.

³K Factor for whole soil (including rock) where higher K values have a higher hazard of erosion.

⁴Runoff potential is based on the Hydrologic Group, where A has a low runoff potential (and a high infiltration rate), and D has a high runoff potential (and a very slow infiltration rate).

Abbreviations: in=inches

7 Current Land Use within the Analysis Area (OAR 345-022-0022(2)(b)(B))

(B) Identification and description of current land uses in the analysis area, such as growing crops, that require or depend on productive soils.

RESPONSE

The approximately 410.5 acres of land within the on-land portions of the analysis area are located on federally managed land, state managed land, and private land. The land uses within the on-land portions of the analysis area include agriculture, road rights-of-way (ROWs), and urban/industrial development (see the Land Use Exhibit).

- Land use near the western converter station is zoned as heavy industrial or open space.
- The land around the eastern converter station is zoned for exclusive farm use but the Bonneville Power Administration (BPA) owns the land and uses it for existing transmission infrastructure.
- The land leading from the eastern converter station to the edge of the Columbia River is zoned as agricultural, ROW, industrial, parks and open spaces, and recreational.

The on-land portions of the analysis area contain approximately 266.2 acres of farmland of statewide importance; 74.3 acres of prime farmland, if drained and protected from flooding (or not flooding frequently during the growing season); and 6 acres of prime farmland, if irrigated (NRCS 2024). However, some of the soil units identified as these types of farmland are in urban areas or have been developed. Therefore, the number of acres of soils and soil impacts described in this exhibit are conservative.

8 Project Soil Impacts (OAR 345-022-0022(2)(b)(C))

(C) Identification and assessment of significant potential adverse impact to soils from construction, operation and retirement of the facility, including, but not limited to, erosion and chemical factors such as salt deposition from cooling towers, land application of liquid effluent, and chemical spills.

RESPONSE

8.1 Soil Impacts During Construction

Project construction activities have potential to adversely impact soils, including the following:

- Clearing and grubbing vegetation at temporary laydown areas and the eastern and western converter station locations, and temporary HDD work areas, including horizontal auger borings (HAB) locations;

- Trenching;
- Operating heavy equipment and haul trucks for delivering water, concrete, HDD rig and associated equipment, other construction supplies; and
- Fueling or maintenance of construction equipment and vehicles.

Construction of the proposed alignment would permanently impact approximately 15.3 acres and temporarily disturb approximately 39.8 acres of soil in Oregon. Of these permanent disturbance acres, approximately 13.3 acres are prime farmland of statewide importance; approximately 0.1 acres are prime farmland, if irrigated; and approximately 2.6 acres are prime farmland, if drained and protected from flooding.

Vegetation clearing, trenching, HDD, and temporary staging areas would temporarily impact soils with low to moderate risk of erosion. Constructing the converter stations would permanently impact Wato very fine sandy loam which is farmland of statewide importance with moderate risk of erosion in the east, and Pilchuck-Urban land complex which is farmland of statewide importance with low risk of erosion and Sauvie silt loam which is prime farmland if drained and either protected from flooding or not frequently flooded during the growing season with moderate risk of erosion in the west.

Construction of the Western AC North Alternative would permanently disturb approximately 0.5 acres of farmland of statewide importance and 0.1 acres are of prime farmland, if drained and protected from flooding. Construction of the Western AC South Alternative would permanently disturb approximately 0.3 acres of farmland of statewide importance and 0.2 acres of prime farmland, if drained and protected from flooding.

The Western AC North and South alternatives would not significantly change soil impacts. Under the Western AC North alternative, trenching would affect slightly more of the Rafton silt loam soil type (moderate risk of erosion) than the Western AC South Alternative and Proposed Alignment.

Table 5 shows temporary and permanent disturbance soil impacts by alternative, farmland class, and county.

Table 5. Temporary and Permanent Soil Impacts by Alternative, Farmland Class, and County

Alternative	Farmland Class	Locations	Soil Impacts (acres)	
			Temporary	Permanent
Multnomah County				
Proposed Alignment	Farmland of statewide importance	Multnomah County, Oregon	16.7	5.7
	Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season	Multnomah County, Oregon	6.1	2.6
	Not prime farmland	Multnomah County, Oregon	4.4	0.6

Alternative	Farmland Class	Locations	Soil Impacts (acres)	
			Temporary	Permanent
Western AC North Alternative	Farmland of statewide importance	Multnomah County, Oregon	0.9	0.5
	Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season	Multnomah County, Oregon	0.2	0.1
	Not prime farmland	Multnomah County, Oregon	1.4	0.4
Western AC South Alternative	Farmland of statewide importance	Multnomah County, Oregon	0.5	0.3
	Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season	Multnomah County, Oregon	0.3	0.2
	Not prime farmland	Multnomah County, Oregon	0.8	0.5
Wasco County				
Proposed Alignment	Farmland of statewide importance	Wasco County, Oregon	7.6	5.7
	Prime farmland if irrigated	Wasco County, Oregon	0.2	0.1
	Not prime farmland	Wasco County, Oregon	4.6	.7

8.1.1 Erosion

All construction work would be done in compliance with an erosion and sediment control plan (ESCP; Attachment 3) satisfactory to the Oregon Department of Environmental Quality (ODEQ) and as required under the National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit #1200-C (see Attachment 3 for the draft/example ESCP). The Applicant will apply for the permit before construction via ODEQ's online Your DEQ Online platform and update the ESCP according to the final design. The Project will comply with federal, state, and local statutes and regulations related to construction stormwater runoff, including drainage districts and other flood protection providers, including but not limited to the Multnomah County Drainage District regarding potential impacts to the Portland Metro Levee System and the NPDES 1200-C ESCP, which will be completed prior to construction. Construction BMPs associated with these permits are expected to reduce any stormwater impacts below the established requirements as outlined in ODEQ's 1200-C permit requirements.

Soil erosion can be influenced by increased exposure to wind or water and may be influenced by construction activities. Construction activities can potentially increase soil erosion from disturbance, exposure (from vegetation removal or loss), compaction from equipment, and changes to surface drainage patterns. Wind erosion is influenced by wind intensity, soil texture and moisture, grain size of the unprotected soil surface, topography, vegetative cover, and the frequency at which soil is disturbed. Runoff potential and water erosion hazards for identified soils within the site boundary range from low to high. Average annual precipitation in The Dalles, Oregon, is approximately 14.55 inches (U.S. Climate Data 2024a), while average annual precipitation for Portland, Oregon, is 36.03 inches (U.S. Climate Data 2024b).

The high erosion potential of some of the site soils and the available precipitation makes site soils sensitive to water erosion, primarily in the winter and spring months when most precipitation occurs, especially on steeper slopes. Multnomah County silt loams (Sauvie, Rafton, and Faloma) are poorly drained flood plains. Soil impacts at the western end are negligible as the soils are already disturbed in an urban setting. The eastern end contains sandy or silty loams with gently rolling hills to steep slopes. Construction activities consist primarily of trenching and burying transmission line along roads. The land surface would be reconstructed after completion and impacts would be mostly temporary.

BMPs described in the NPDES 1200-C ESCP would minimize the potential for wind or water erosion and sedimentation of soils disturbed by construction. Typical measures include putting sedimentation control measures in place prior to or concurrent to construction; spraying water on exposed soils and covering soil stockpiles that would be exposed longer term; placing gravel surfacing, where needed, immediately following clearing and grading; and revegetating disturbed areas as soon as practicable. The areas used only for construction would be reclaimed during the best season for replanting, typically, in the fall or spring. Reclamation activities may include replacing topsoil and revegetation.

8.1.2 Compaction

Construction would require the use of vehicles and heavy equipment that may compact soil in areas of construction. If left unmitigated, this compaction could lead to loss of agricultural productivity, increased rates of erosion, and increased difficulty in reestablishing vegetation. To the extent practicable, mechanized clearing and maintenance would be scheduled to occur in the late summer or early fall months, when soils are more likely to be dry in order to minimize soil compaction, rutting, and structural damage to soils.

Soil compaction following construction would be mitigated by restoring temporary disturbance areas via methods that may involve removing gravel surfacing, regrading, and scarifying to loosen compacted soils. Mitigation would be completed prior to replacing stockpiled topsoil and revegetating. In agricultural areas, soil would be decompacted to a depth of at least 1 foot where construction activities occurred. These actions would mitigate for soil compaction that may occur from construction activities in areas of temporary impact (areas not permanently occupied by Project facilities).

8.1.3 Restoration and Revegetation

Temporarily disturbed areas would be restored and revegetated following construction. Erosion and sedimentation would be controlled by BMPs, which would be maintained during site restoration activities, or replaced with permanent control measures. Areas actively undergoing restoration with exposed soils would be sprayed with water to help control and prevent wind erosion. Excavated soils would be stockpiled by soil horizon to aid in replacing in the proper order. Topsoil would be added to the surface last in order to prevent mixing the subsoil and the topsoil in order to encourage and maintain the soil productivity. Soil decompaction and scarification would aid in preserving soil productivity and reduce the potential for erosion. Final grading of temporary construction areas would incorporate contours to manage stormwater runoff and minimize related erosion and sedimentation.

Areas disturbed by construction and restoration activities would be revegetated, using a seed mix appropriate to the specific locations and at the appropriate time of planting, as required by the landowner. Revegetation would be completed as soon as is practicable in order to limit soil exposure time to wind or water. As described in the draft Revegetation and Noxious Weed Control Plan in the Fish and Wildlife Habitat Exhibit, revegetation would use mulching, hydroseeding, temporary irrigation, or other methods, as needed, based on limitations of each area that may inhibit revegetation activities. Additionally, in areas with droughty soils, which do not hold enough water in root zones, making revegetation difficult, soil surfaces would be mulched and stabilized to minimize wind erosion and conserve soil moisture. Large stones excavated during foundation work around the converter stations would be separated from topsoil, when possible, as well as during surface restoration work, and removed to a designated on-site location.

8.1.4 Soil Contamination

Contamination by a chemical spill is a potential hazard to soil during Project construction. However, the potential for soil contamination during construction or operation is limited because no substantial quantities of fuel, oils, or other potential contaminants are expected to be stored on. The greatest risk of soil contamination would occur during fueling or maintenance of construction equipment. Fueling and maintenance of construction equipment would occur in designated areas, far from surface water features, wetlands, and drainage areas.

The Applicant's construction contractor will prepare a draft SPCC Plan, which would be implemented during construction and describe the preventative measures and practices to be used during construction to reduce the likelihood of an accidental release of a hazardous or regulated liquid. The SPCC Plan will describe the methods used in the event of a release to expedite the response to the release and the associated remediation of such a release. The plan will restrict locations of fuel storage, fueling activities and equipment maintenance activities, and provide procedures for these activities. The plan will also describe required training, key roles and responsibilities of key Applicant personnel and contractors, and establish lines of communications to facilitate the prevention, response, containment, and cleanup of any spills. Due to the procedures established in the SPCC Plan and the limited fuels, oils, or chemicals that would be kept on-site during construction, the Project is not expected to result in impacts to soils from chemical spills during construction.

The Project Order requires CRT to discuss proposals to verify spoils from drilling or dredging activities do not contain hazardous materials or radionuclides. The Applicant conducted sediment sampling in the Columbia River in coordination with the interagency PSET to analyze sediment type and determine if river sediments are contaminated in those areas of proposed work. The results of that study confirmed no manmade radionuclides and other potentially hazardous contaminants were present. In addition, the proposed Project has been sited to avoid the USACE spoils pile on Hayden Island, which is known to contain contaminants of concern (see the Background Information Exhibit).

8.1.5 Productive Agricultural Soils

Except for areas removed from potential agricultural production by permanent Project facilities, the Project will not adversely impact soils on which agriculture is dependent. The ESCP establishes BMPs for soil erosion and sedimentation control, which will aid in preserving productive agricultural and non-agricultural soils. Existing vegetation would be preserved, where practicable. As described above, topsoil would be stripped and stockpiled separately from the subsoils, which would be

separated by horizon to the extent possible and replaced to the surface during final stages of the site restoration before revegetation activities. Silt fencing would be installed prior to any soil-disturbing activities and used as a perimeter control on the contour down gradient of excavations and around stockpiles to control sedimentation. Stockpiling, decompacting, and restoring soils would aid in maintaining soil productivity in areas disturbed by construction activities. Where needed, during construction, temporary revegetation may be used, with permanent revegetation occurring as soon as site conditions and weather allow, following completion of construction and land disturbance activities. Revegetation and soil decompaction activities would occur as construction activities are completed.

This exhibit provides information regarding anticipated inventory of industrial materials during construction and operation, including estimated quantities of hazardous materials. The Applicant anticipates that up to 2,500 gallons of diesel fuel and 2,500 gallons of gasoline could be delivered to the site for fueling construction equipment while the converter stations are constructed. Fuel would be delivered to the construction yard by a licensed specialized tanker vehicle on an as-needed basis. There would be no substantial quantities of lubricating oils, hydraulic fluid for construction equipment, or other hazardous materials maintained on site during construction. Lubricating oil or hydraulic fluids for construction equipment would be brought on site on an as-needed basis for equipment maintenance by a licensed contractor, using a specialized vehicle, and waste oils removed by the same maintenance contractor. Transformer oils would arrive on an as-needed basis and be transferred into the receiving components; none would be stored on site during construction.

Hazardous materials would be used in a manner that is protective of human health and the environment and complies with all applicable local, state, and federal environmental laws and regulations. The SPCC Plan will identify the requirements of spill kits containing items such as absorbent pads to be located on equipment and in on-site temporary storage to ensure a quick response to spills.

8.2 Soil Impacts During Operation

Project operations would have no impact on soil erosion. Operations would be confined to gravel surfaced areas around the converter stations and within permanent facilities. No additional ground disturbance is anticipated during Project operations. An example SPCC Plan from one of the Applicant's existing projects is included in Attachment 1. Prior to construction, the Applicant will submit an SPCC Plan similar to the example shown in Attachment 1 to ODEQ for approval, which would be updated to include operational measures. For permanent stormwater management during operation, the converter stations would be designed to comply with BMPs and applicable federal, state, and local statutes. The stormwater management approach is to use natural drainage practices and infiltrate the stormwater on both sites via infiltration trench. Stormwater management for the converter stations will be determined during final design. The transmission cables would be installed underground in all other areas, and affected areas will be returned to pre-project ground contours; therefore, no stormwater would be generated at these locations. .

8.3 Soil Impacts During Decommissioning

In the event of Project decommissioning, the potential erosion hazards would be similar to those identified during Project construction. Decommissioning activities would expose soils to erosion

because of lack of vegetation during removal of the aboveground converter station components. Measures implemented during construction would similarly be implemented during decommissioning to control and prevent soil erosion, rectify soil compaction, prevent spills, and revegetate disturbed areas.

Potential impacts to soils from decommissioning activities would be similar to those described above for the construction activities.

9 Mitigation Measures (OAR 345-022-0022(2)(b)(D))

(D) A description of any measures the applicant proposes to avoid or mitigate adverse impact to soils.

RESPONSE

The Project has been designed to avoid impacts to sensitive soils to the extent practicable. For example, impacts to soils on which agriculture is dependent have been minimized through the use of existing roads to the extent possible. Potential impacts to soil from construction, operations, and decommissioning would be mitigated by adhering to BMPs identified in the ESCP. Localized impacts to soils from temporary disturbance areas would be minimized through the use of BMPs and efforts to restore soil surfaces and vegetation following disturbances.

The draft Revegetation and Noxious Weed Control Plan (in the Fish and Wildlife Habitat Exhibit) and/or the ESCP would include, but are not necessarily limited to, the following minimization measures and BMPs:

- **Stabilized Construction Entrances/Exits:** A stabilized construction entrance/exit will be installed at locations where construction vehicles will access disturbed areas from paved roads. The stabilized construction entrance/exits will be inspected and maintained for the duration of construction.
- **Preserve Existing Vegetation:** To the extent practicable, existing vegetation will be preserved. Where vegetation clearing is necessary, root systems will be conserved, if possible.
- **Silt Fencing:** Silt fencing will be installed throughout the Project area on the contour downgradient of excavations, HDD staging areas, and converter station locations.
- **Straw Wattles:** Straw wattles will be used to decrease the velocity of sheet flow stormwater to prevent erosion. Wattles will be used along the downgradient edge of access roads and staging areas adjacent to slopes or sensitive areas.
- **Mulching:** Mulch will be used to immediately stabilize areas of soil disturbance, and during reseeding efforts.
- **Stabilization Matting:** Jute matting, straw matting, or turf reinforcement matting will be used in conjunction with mulching to stabilize steep slopes that were exposed during access road installation.

- **Soil Binders and Tackifiers:** Soil binders and tackifiers will be used on exposed slopes to stabilize them until vegetation is established.
- **Concrete Washout Area and HDD Drill Cuttings Management:** Concrete truck chutes will be washed down to prevent concrete from hardening within the chutes. In these cases, the concrete wastewater will be washed out into a dedicated concrete washout area. Concrete solids and washout water would be contained within a confined area and hauled away to an appropriate location. Using dedicated concrete washout areas is a common BMP for construction. During HDD drilling to transition the cables from land to water and under sensitive areas, drill cuttings and HDD drilling mud solids will be contained within a confined area and shipped to an appropriate waste site.
- **Stockpile Management:** To facilitate installation of transmission line via trenching, small excavations will be created. Soil from these excavations will be temporarily stockpiled and used to backfill the trenches once the cable is laid. Silt fencing will be installed around the stockpile material as a perimeter control, and mulch or plastic sheeting will be used to cover the stockpiled material if the soil requires stockpiling for more than 1 day. Soils will be stockpiled and reused in order to prevent mixing of productive topsoil with deeper subsoil.
- **Revegetation:** After construction is complete, the site will be revegetated with an approved seed mix. When required, the seed will be applied in conjunction with mulch and/or stabilization matting to protect the seeds as the vegetation establishes. Revegetation will take place as soon as site conditions and weather allow following construction.
- **Pollutant Management:** The SPCC Plan will identify source control measures for use during construction and operations to reduce the potential of chemical pollution to surface water or groundwater during construction.
- **Construction Timing:** To the extent practicable, construction activities will be scheduled to occur in the dry season, when soils are less susceptible to compaction. Similarly, soil disturbance will be postponed when soils are excessively wet such as following a precipitation event.

The final design of the Project is not complete. The discussion above is intended to represent a broad range of BMPs that may be implemented. The actual BMPs used for construction and operation will be identified in the ESCP.

10 Monitoring Program (OAR 345-022-0022(2)(b)(E))

(E) The applicant's proposed monitoring program, if any, for adverse impact to soils during construction and operation.

RESPONSE

Mitigation efforts required by the NPDES 1200-C ESCP are expected to limit impacts to soils from Project construction. Monitoring would include visual observation and inspections conducted during construction, as required by the NPDES 1200-C ESCP; this would include visual review of BMPs, soil conditions, rutting/runoff, and other factors. If problems are observed, measures to mitigate or

reclaim these areas would be implemented and a formal monitoring program established and implemented for those areas. As described in the Background Information Exhibit, during operations the Applicant would conduct periodic inspections and preventative maintenance on the HVAC components in conjunction with the converter station preventative maintenance. In addition, as described in Section 3.2, the operational materials, including small quantities of hazardous materials would be contained in equipment and in secondary containment and an SPCC Plan would be prepared and maintained. Based on these preventative measures, the Applicant believes that no formal monitoring program is needed.

11 Conclusion

The potential for soil erosion, compaction, and contamination during Project construction would be minimized by avoiding problematic areas to the extent practical, and by adhering to the ESCP and SPCC Plan. Implementation of an SPCC Plan during construction and operations would further reduce any risk of contamination. Specific construction and site restoration practices would be implemented to mitigate construction impacts on soil productivity. The Project would not adversely impact productive farmland soils, except where permanent impacts are proposed. Considering the implementation of avoidance measures, BMPs, and post-construction restoration, the Applicant concludes that the Project design, construction, and operation are not likely to result in a significant adverse impact to soils.

Based on the information presented in this exhibit, the Applicant has satisfied the requirements of OAR 345-022-0022.

12 References

- Natural Resources Conservation Service (NRCS). 2024. Web Soil Survey. Soil Maps Website. Accessed January 2024. <https://websoilsurvey.nrcs.usda.gov/app/>.
- U.S. Climate Data. 2024a. Climate The Dalles – Oregon. Accessed April 2024. <https://www.usclimatedata.com/climate/the-dalles/oregon/united-states/usor0344>.
- _____. 2024b. Climate Portland – Oregon. Accessed April 2024. <https://www.usclimatedata.com/climate/portland/oregon/united-states/usor0275>.
- U.S. Environmental Protection Agency (USEPA). 2006. Spill Prevention, Control, and Countermeasure (SPCC) Rule Amendment. “Option for Qualified Oil-Filled Operational Equipment.” (EPA-550-F-06-008). Office of Emergency Management. December 2006.

13 Figures

FIGURE 1
SOIL TYPE INDEX MAP
PAGE 1 OF 21

FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVAC HDD
 - PROPOSED ALIGNMENT - HVAC UNDERGROUND
 - WESTERN AC ALTERNATIVE NORTH - HVAC HDD
 - WESTERN AC ALTERNATIVE NORTH - HVAC UNDERGROUND
 - WESTERN AC ALTERNATIVE SOUTH - HVAC HDD
 - WESTERN AC ALTERNATIVE SOUTH - HVAC UNDERGROUND
 - PROPOSED ALIGNMENT - HVDC HDD
 - PROPOSED ALIGNMENT - HVDC UNDERGROUND
 - TEMPORARY HORIZONTAL DIRECTIONAL DRILLING (HDD) AREA
 - TEMPORARY HORIZONTAL AUGER BORE (HAB)
 - CONVERTER STATION
 - OREGON EFSC SITE BOUNDARY
 - STATE BOUNDARY
- SOIL UNIT
- 33A - PILCHUCK-URBAN LAND COMPLEX, 0 TO 3 PERCENT SLOPES
 - 39 - RAFTON SILT LOAM
 - 44 - SAUVIE SILT LOAM
 - 50A - URBAN LAND, 0 TO 3 PERCENT SLOPES

CASCADE RENEWABLE TRANSMISSION



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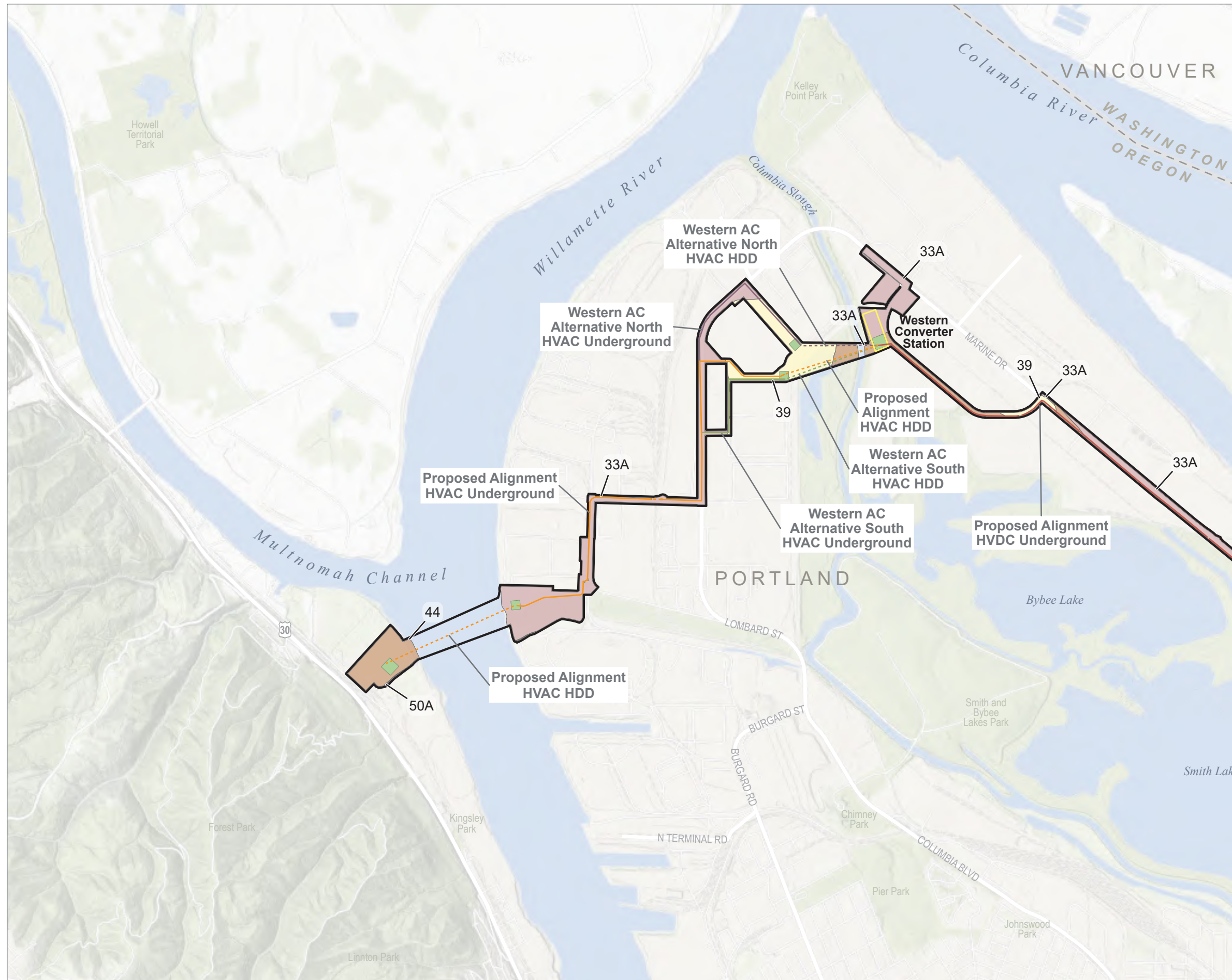


FIGURE 1
SOIL TYPE INDEX MAP
PAGE 2 OF 21

FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVDC HDD
 - - - PROPOSED ALIGNMENT - HVDC HYDROFLOW
 - PROPOSED ALIGNMENT - HVDC UNDERGROUND
 - TEMPORARY HORIZONTAL DIRECTIONAL DRILLING (HDD) AREA
 - TEMPORARY HORIZONTAL AUGER BORE (HAB)
 - OREGON EFSC SITE BOUNDARY
 - STATE BOUNDARY
- SOIL UNIT
- 15 - FALOMA SILT LOAM
 - 31 - PILCHUCK SAND
 - 33A - PILCHUCK-URBAN LAND COMPLEX, 0 TO 3 PERCENT SLOPES
 - 44 - SAUVIE SILT LOAM

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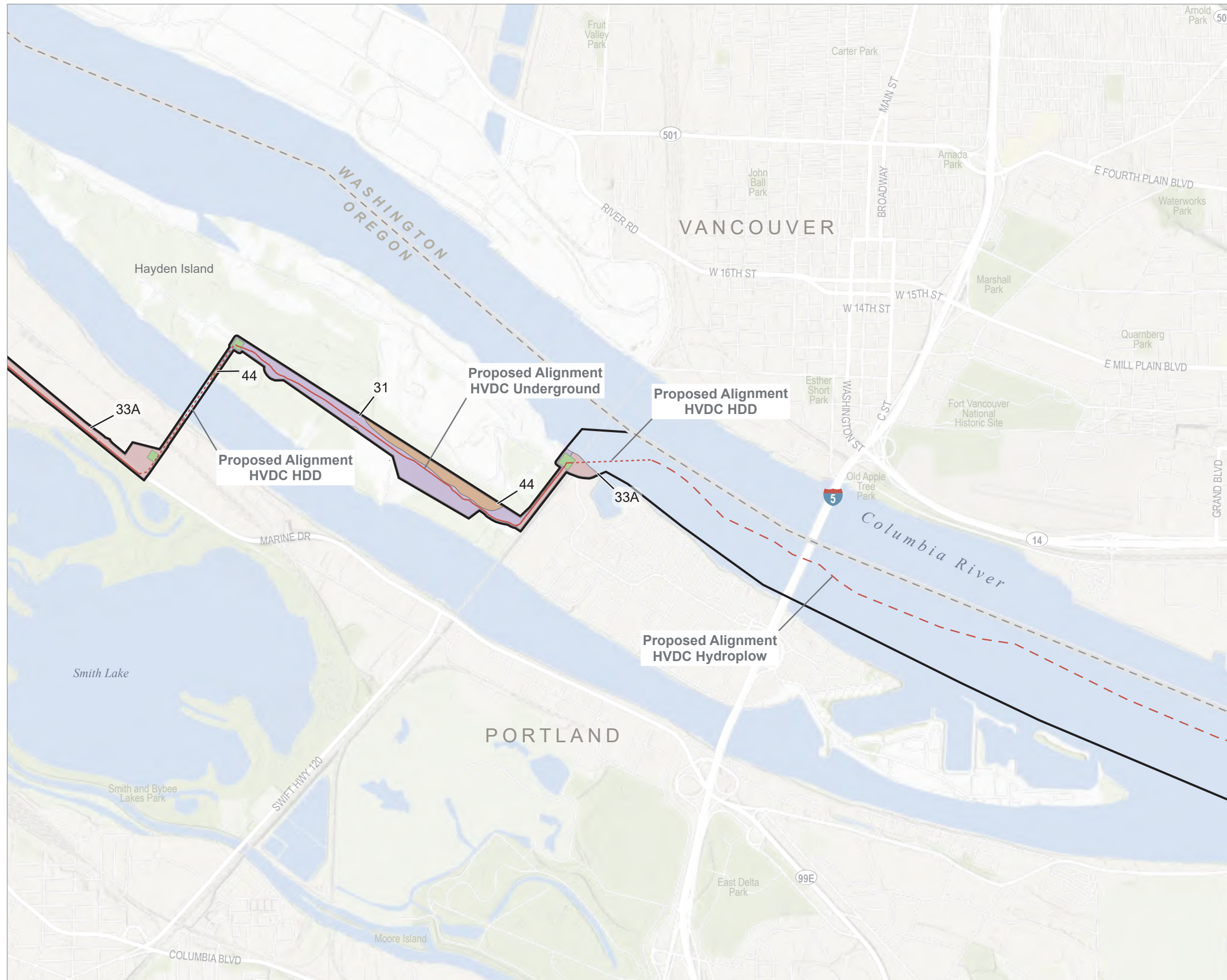
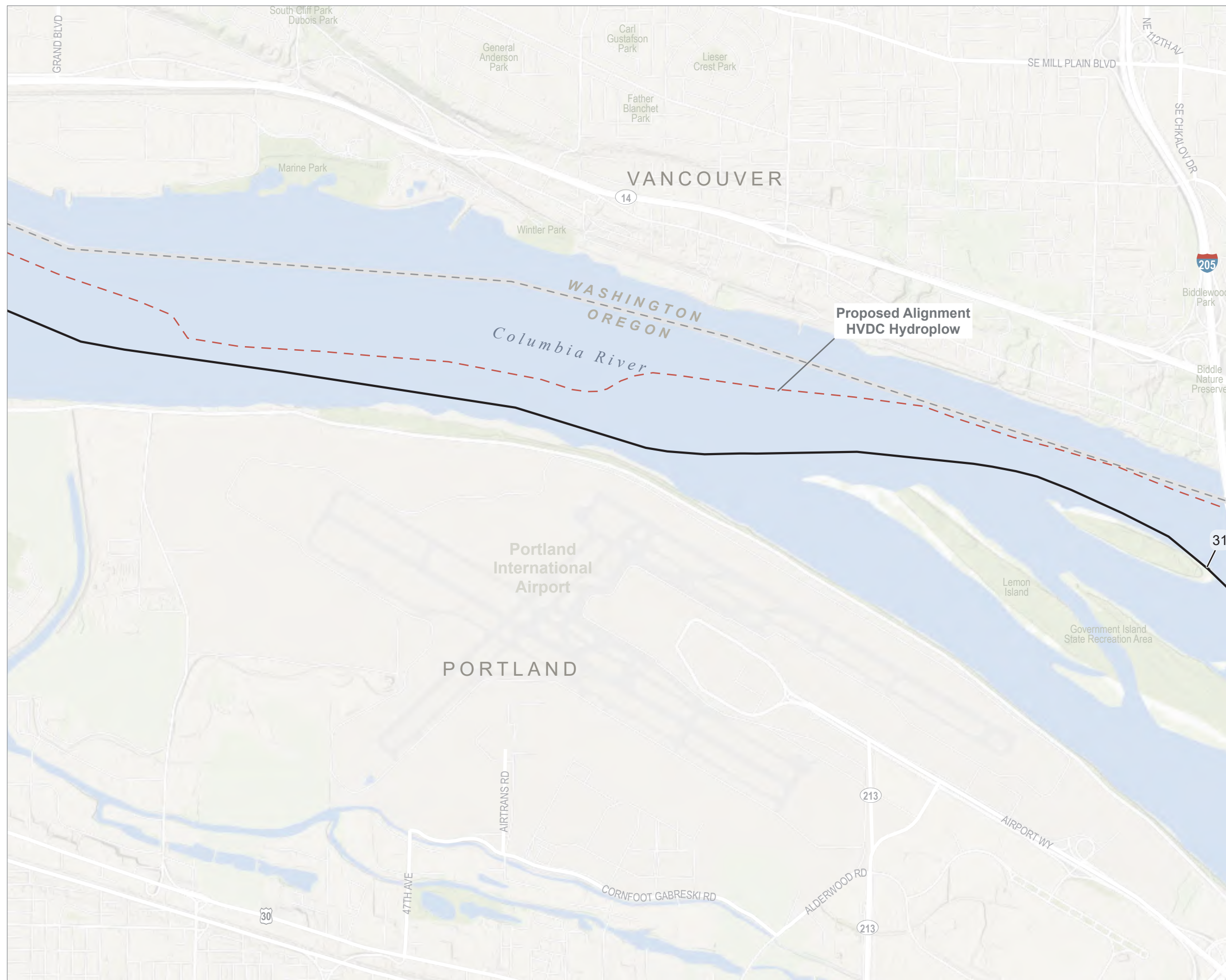


FIGURE 1
SOIL TYPE INDEX MAP
PAGE 3 OF 21

FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVDC HYDROFLOW
- OREGON EFSC SITE BOUNDARY
- STATE BOUNDARY
- SOIL UNIT**
- 31 - PILCHUCK SAND



CASCADE RENEWABLE TRANSMISSION



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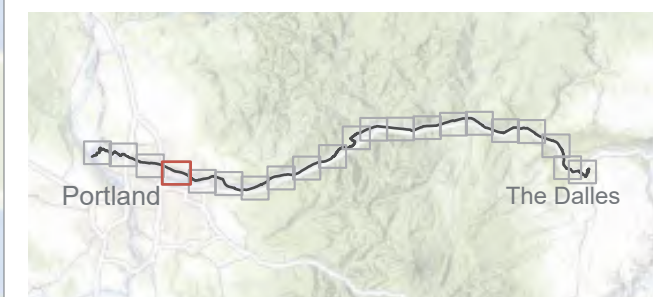
FIGURE 1
SOIL TYPE INDEX MAP
PAGE 4 OF 21

FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVDC HYDROFLOW
- OREGON EFSC SITE BOUNDARY
- STATE BOUNDARY
- SOIL UNIT**
- 31 - PILCHUCK SAND



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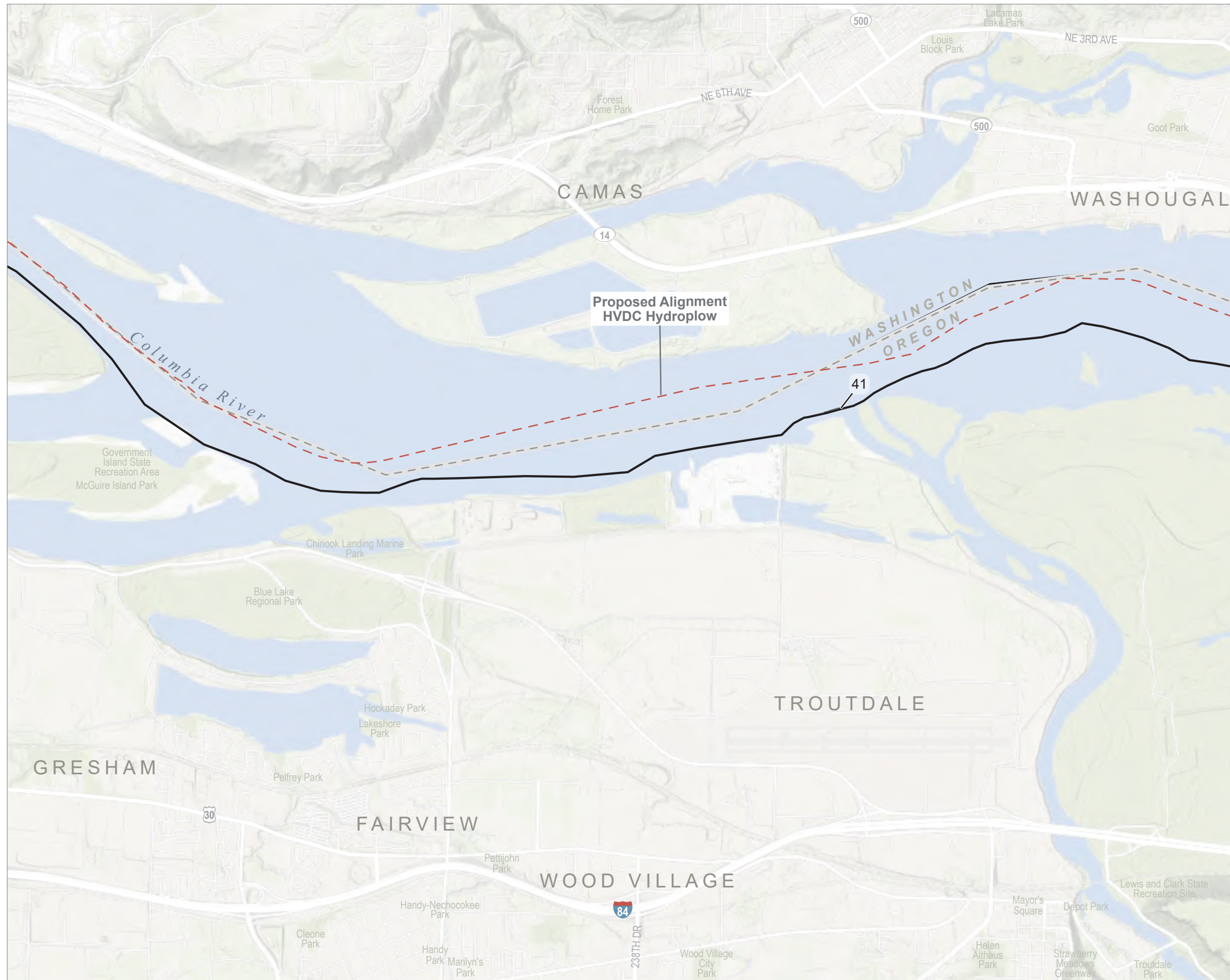
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FIGURE 1
SOIL TYPE INDEX MAP
PAGE 5 OF 21

FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVDC HYDROFLOW
- OREGON EFSC SITE BOUNDARY
- STATE BOUNDARY
- SOIL UNIT
- 41 - RIVERWASH



CASCADE RENEWABLE TRANSMISSION



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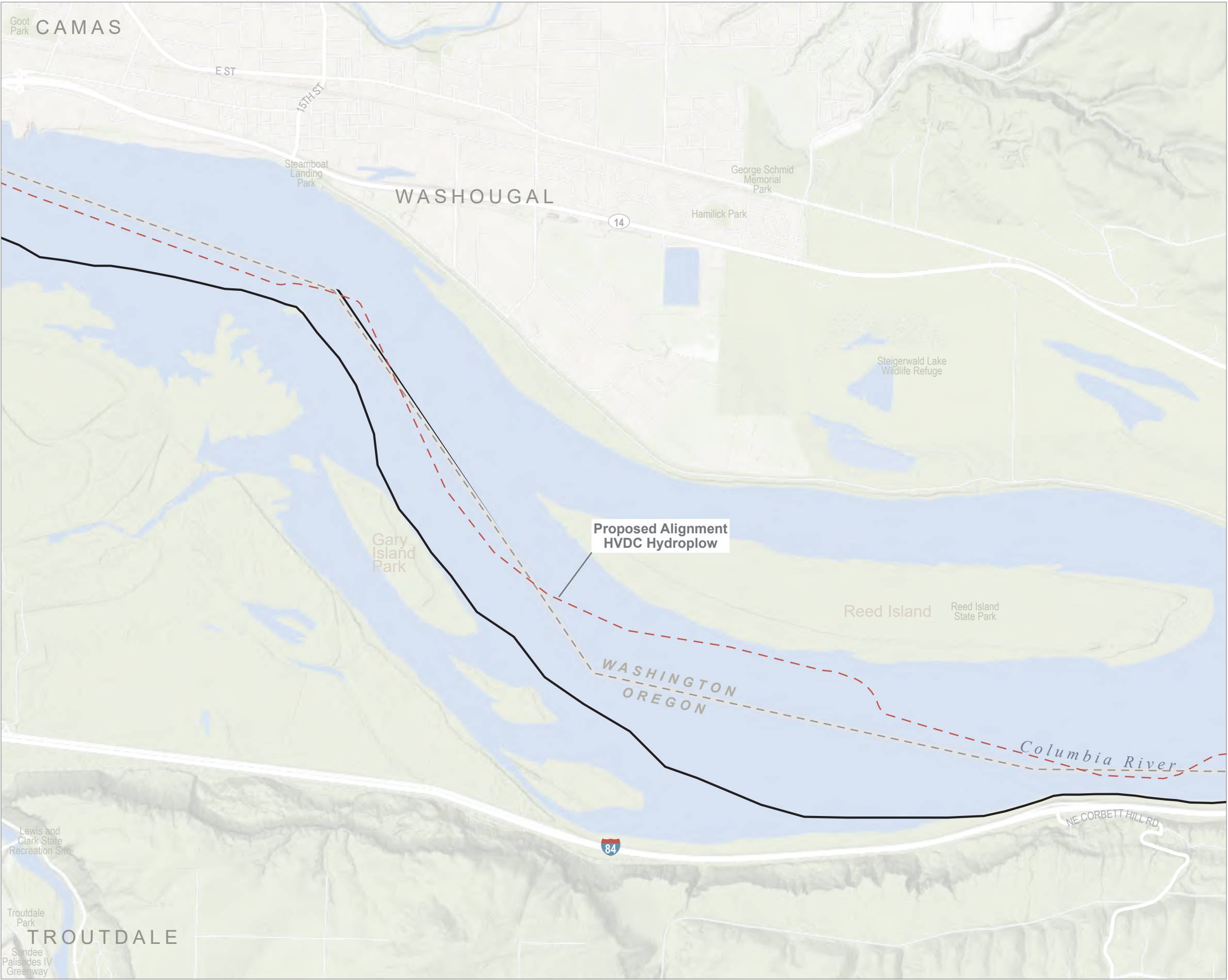
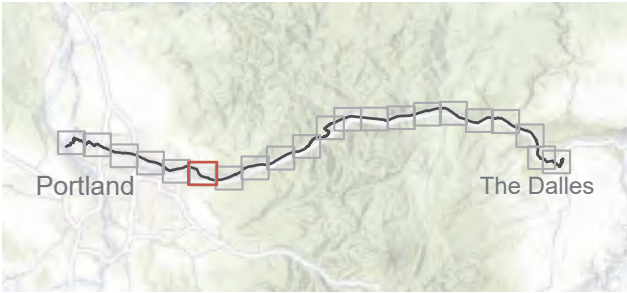


FIGURE 1
SOIL TYPE INDEX MAP
PAGE 6 OF 21

FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVDC HYDROFLOW
- OREGON EFSC SITE BOUNDARY
- STATE BOUNDARY

CASCADE RENEWABLE TRANSMISSION



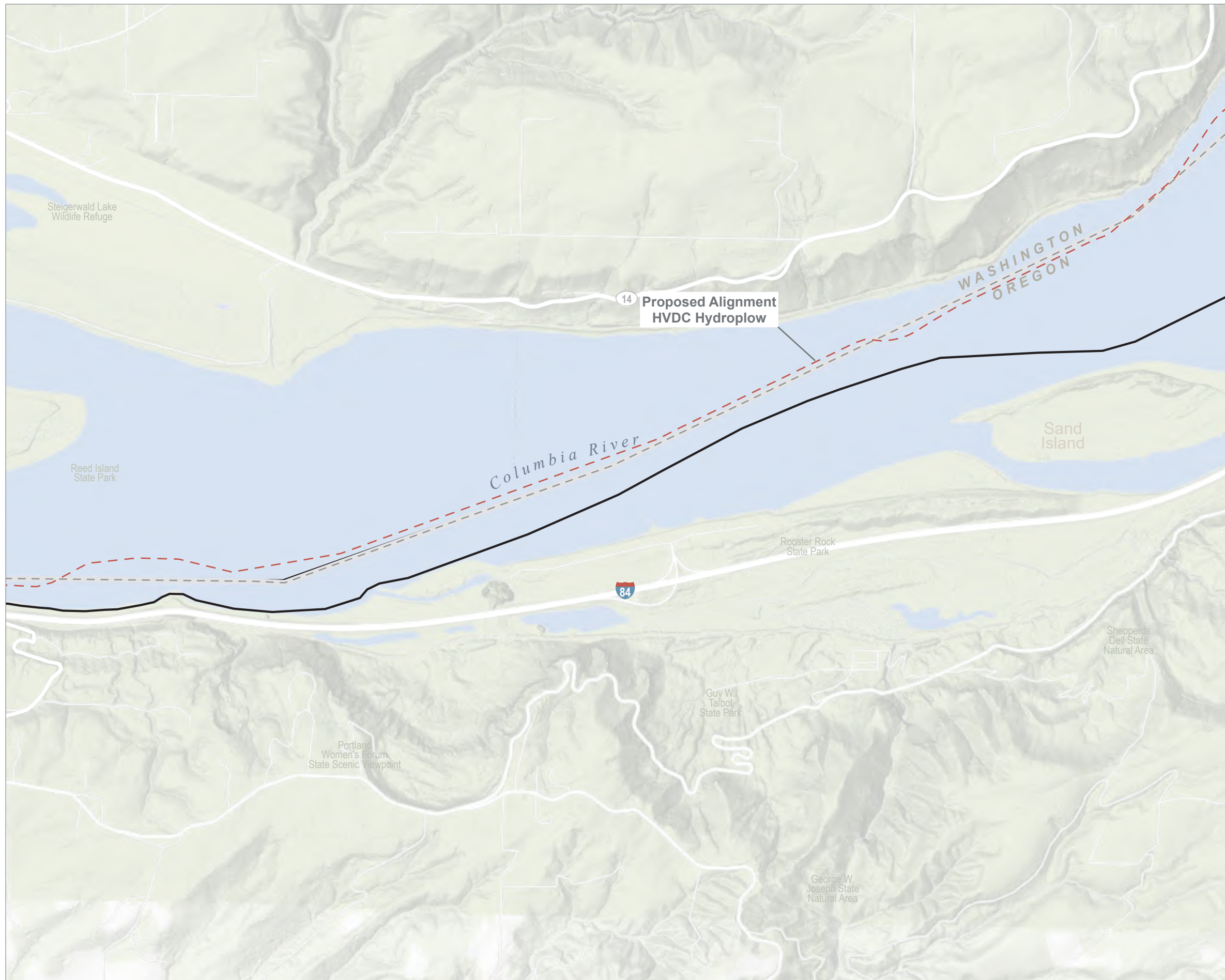
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FIGURE 1
SOIL TYPE INDEX MAP
PAGE 7 OF 21

FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVDC HYDROFLOW
- OREGON EFSC SITE BOUNDARY
- STATE BOUNDARY



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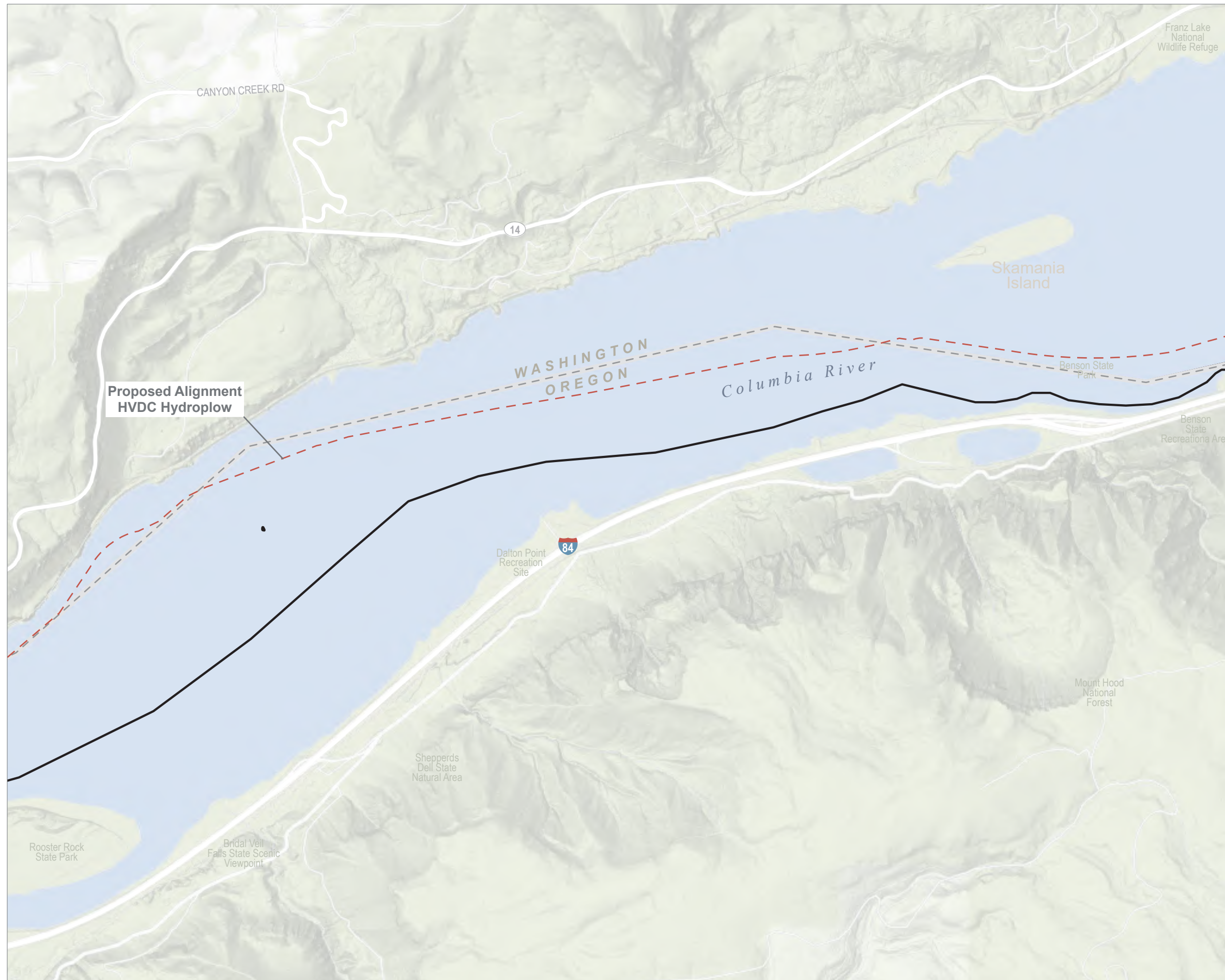
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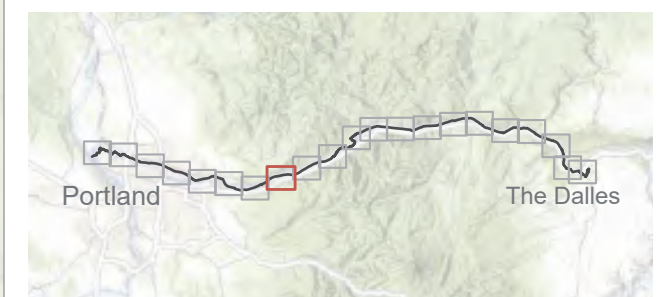
FIGURE 1
SOIL TYPE INDEX MAP
PAGE 8 OF 21

FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVDC HYDROFLOW
- OREGON EFSC SITE BOUNDARY
- STATE BOUNDARY



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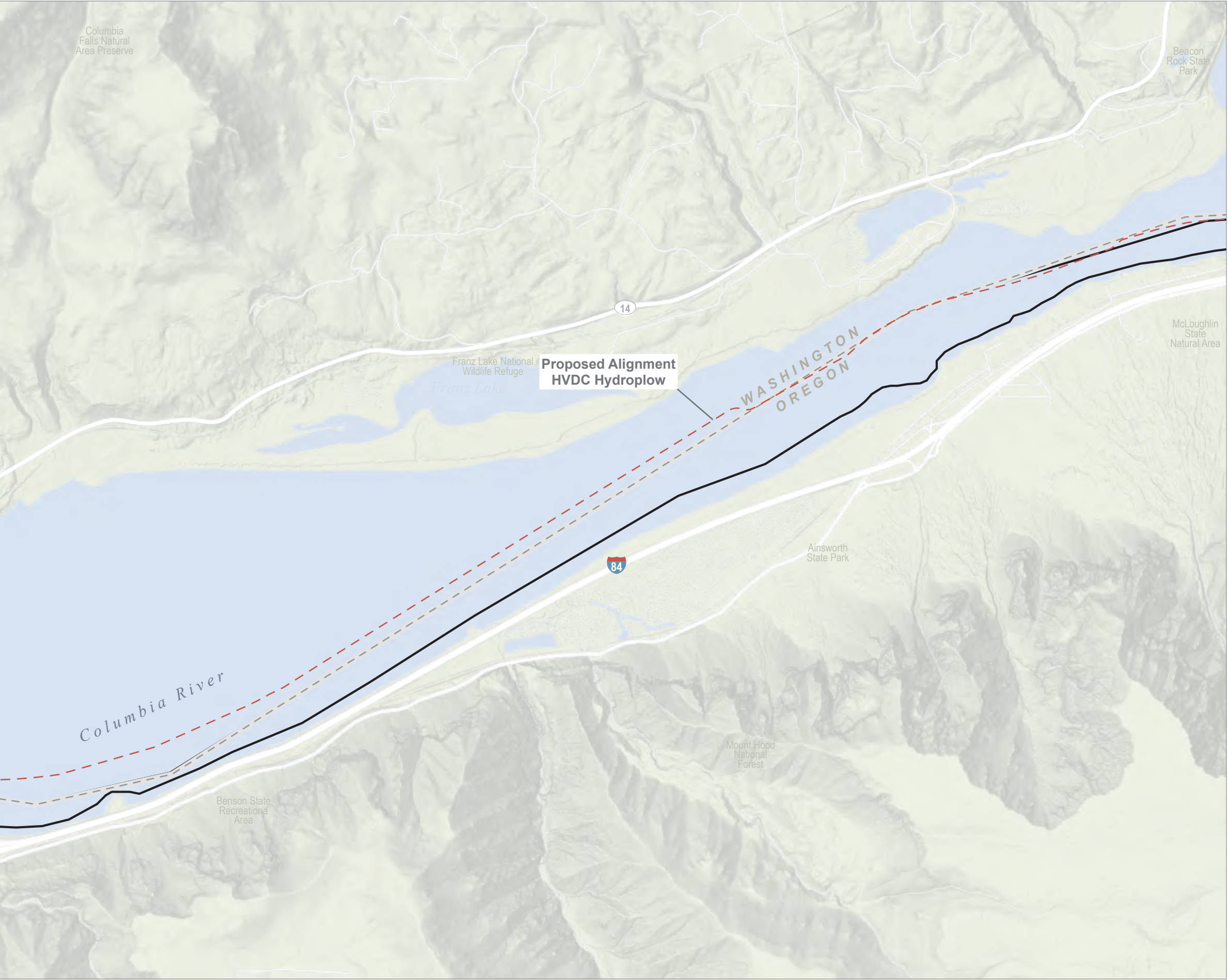


FIGURE 1
SOIL TYPE INDEX MAP
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FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVDC HYDROFLOW
- ▮ OREGON EFSC SITE BOUNDARY
- ▮ STATE BOUNDARY

CASCADE RENEWABLE TRANSMISSION



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FIGURE 1
SOIL TYPE INDEX MAP
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FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVDC HDD
- - - PROPOSED ALIGNMENT - HVDC HYDROFLOW
- PROPOSED ALIGNMENT - HVDC UNDERGROUND
- TEMPORARY HORIZONTAL DIRECTIONAL DRILLING (HDD) AREA
- OREGON EFSC SITE BOUNDARY
- STATE BOUNDARY
- SOIL UNIT
- 44 - SAUVIE SILT LOAM

CASCADE RENEWABLE TRANSMISSION



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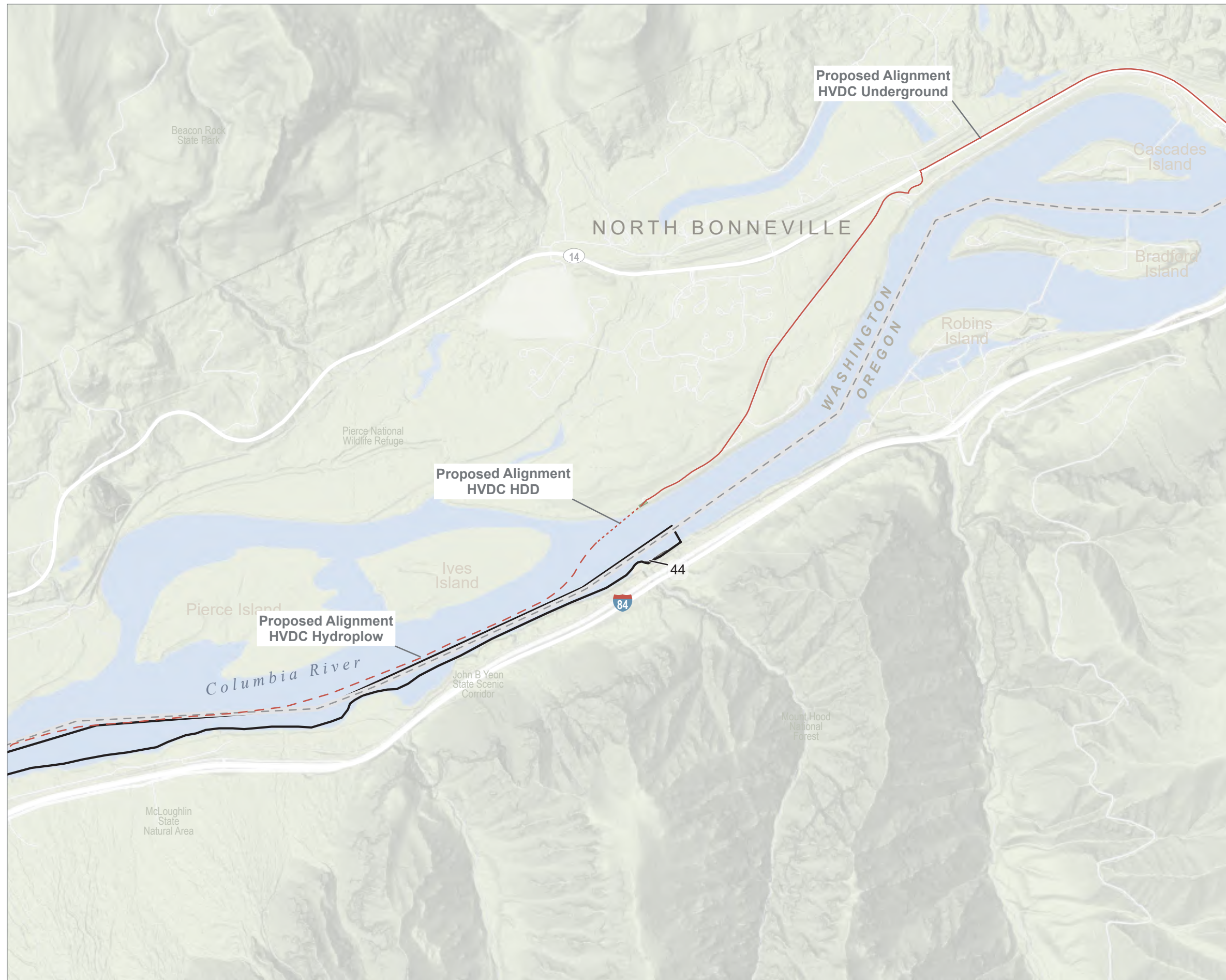
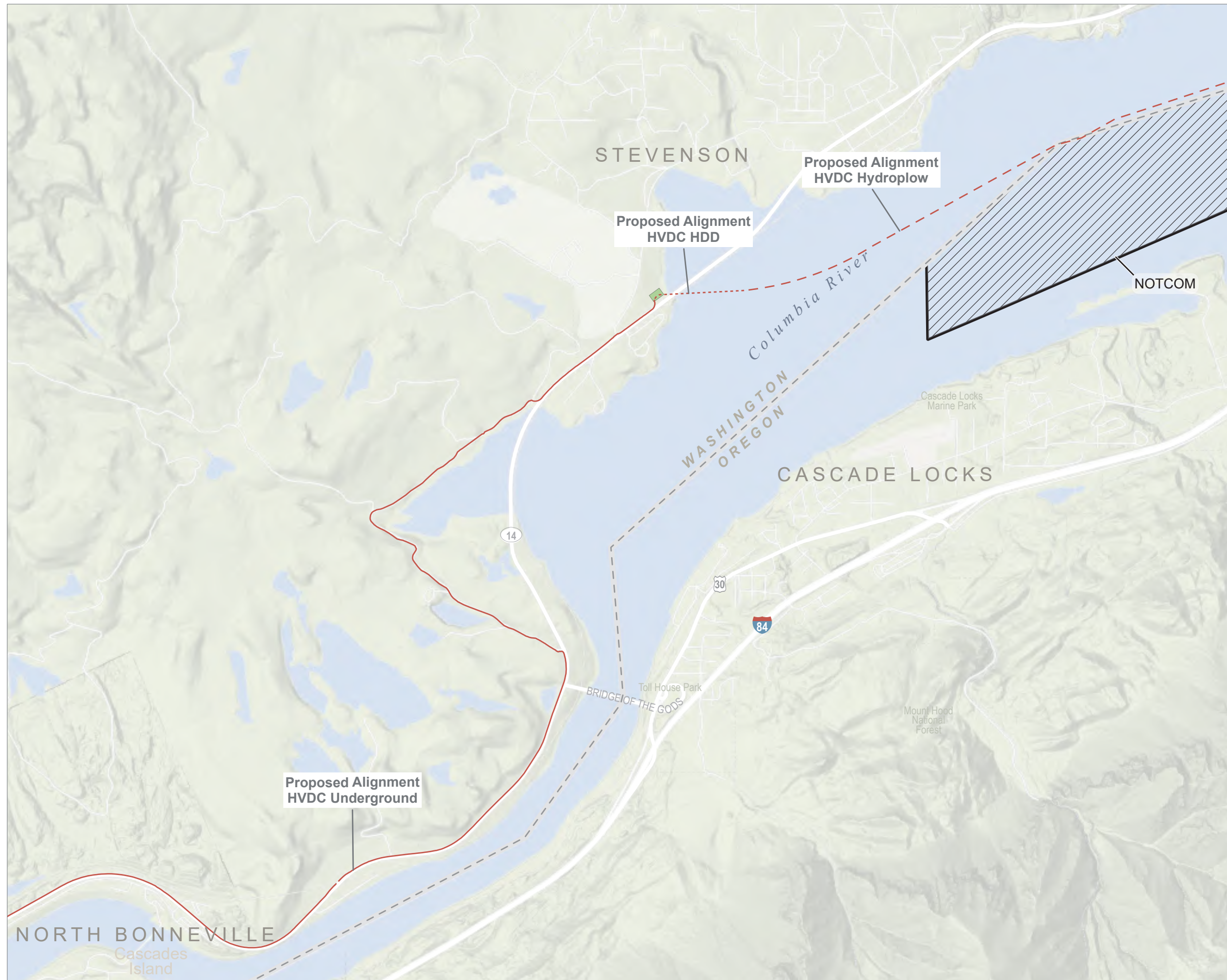


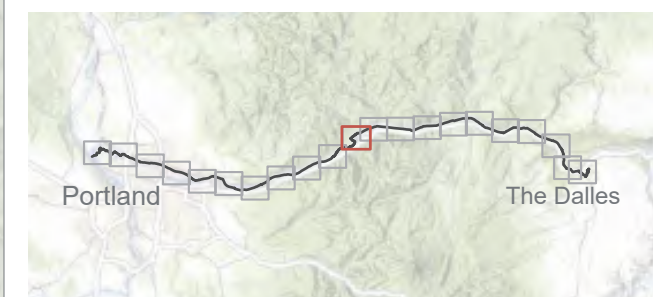
FIGURE 1
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FOR INFORMATION ONLY - CONCEPT DRAWING

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- - - - PROPOSED ALIGNMENT - HVDC HYDROFLOW
- PROPOSED ALIGNMENT - HVDC UNDERGROUND
- TEMPORARY HORIZONTAL DIRECTIONAL DRILLING (HDD) AREA
- TEMPORARY HORIZONTAL AUGER BORE (HAB)
- OREGON EFSC SITE BOUNDARY
- STATE BOUNDARY
- SOIL UNIT
- NOTCOM - NO DIGITAL DATA AVAILABLE



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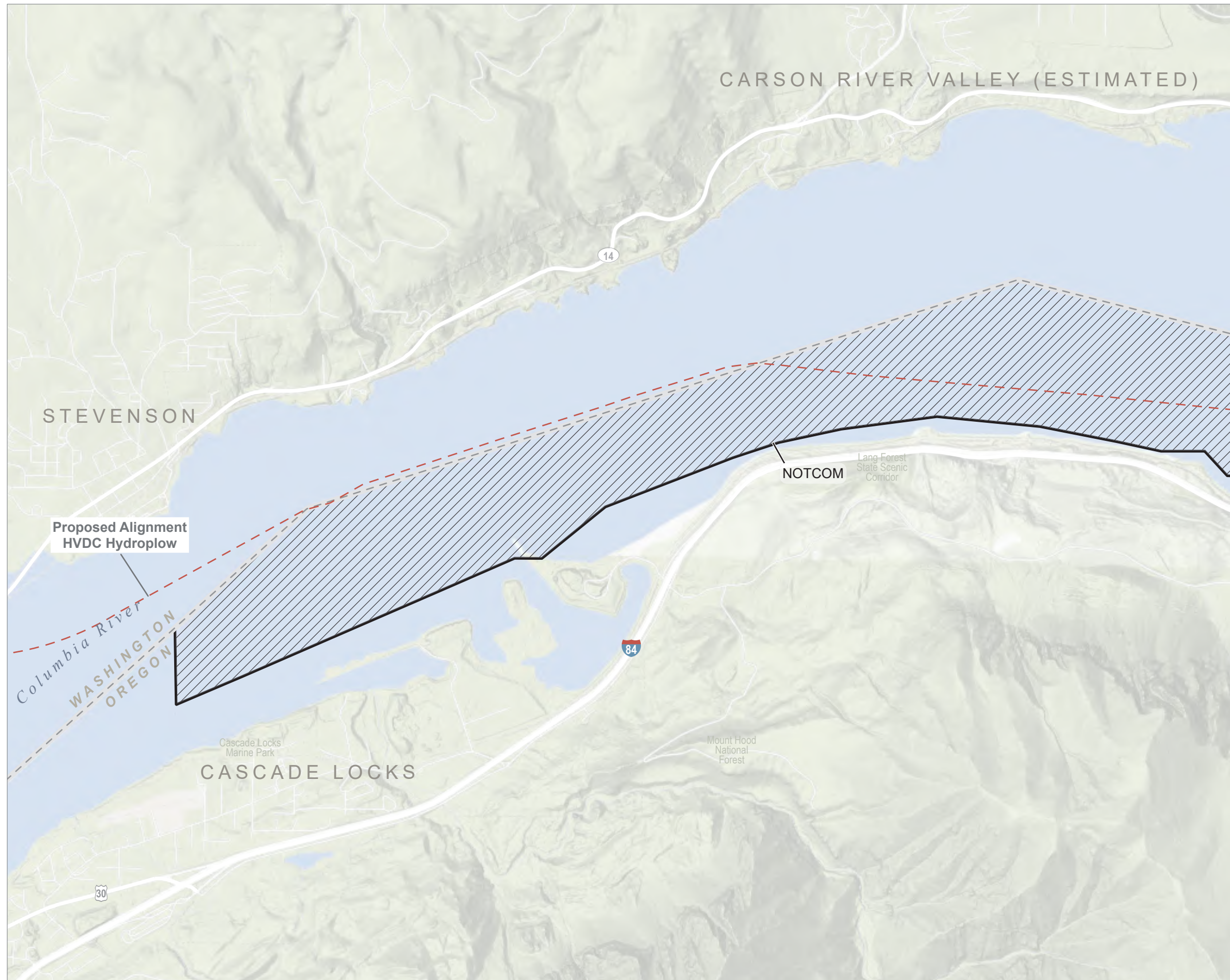
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FIGURE 1
SOIL TYPE INDEX MAP
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FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVDC HYDROFLOW
- OREGON EFSC SITE BOUNDARY
- STATE BOUNDARY
- SOIL UNIT
- NOTCOM - NO DIGITAL DATA AVAILABLE



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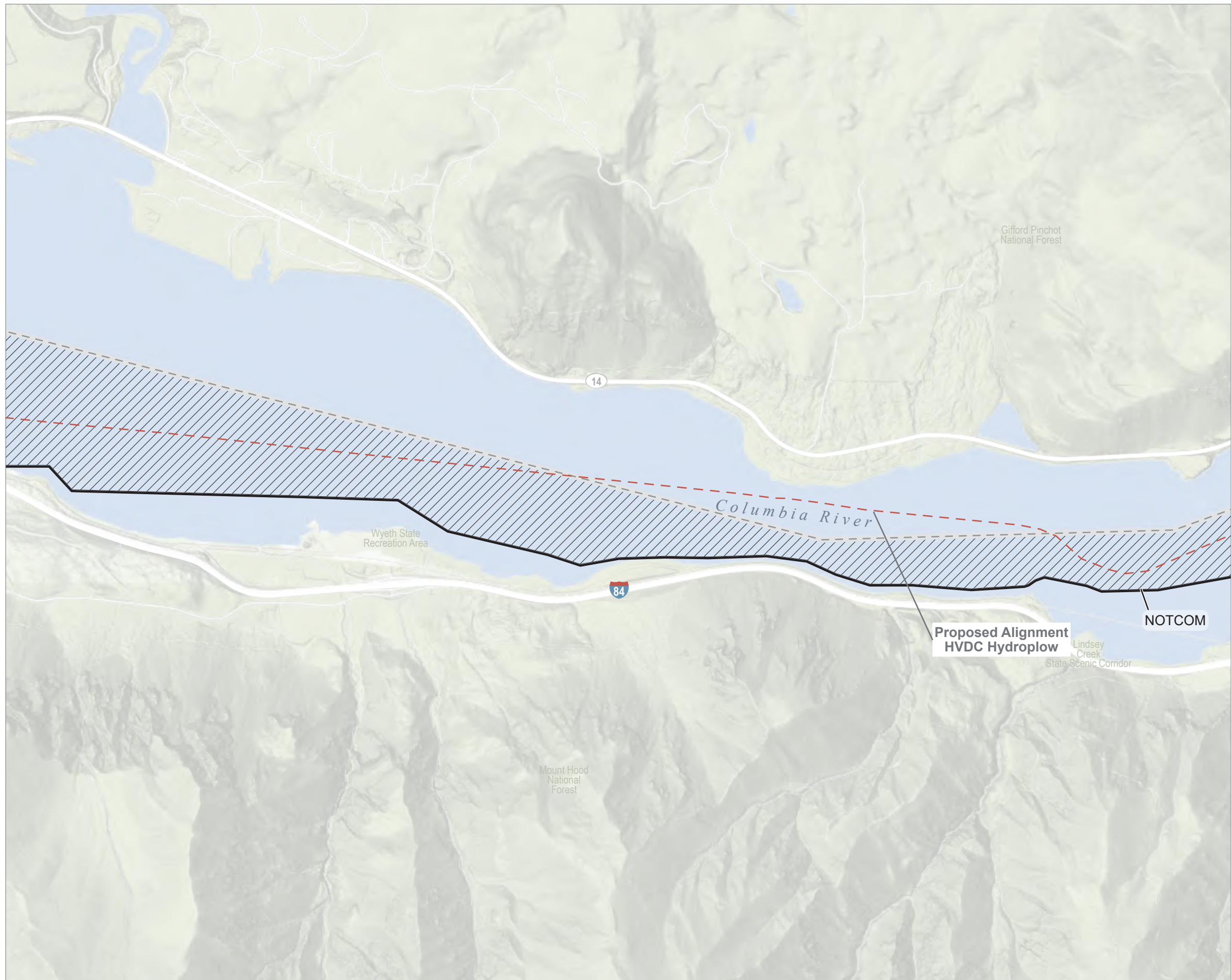
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FIGURE 1 SOIL TYPE INDEX MAP PAGE 13 OF 21

FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVDC HYDROFLOW
- OREGON EFSC SITE BOUNDARY
- STATE BOUNDARY
- SOIL UNIT
- NOTCOM - NO DIGITAL DATA AVAILABLE



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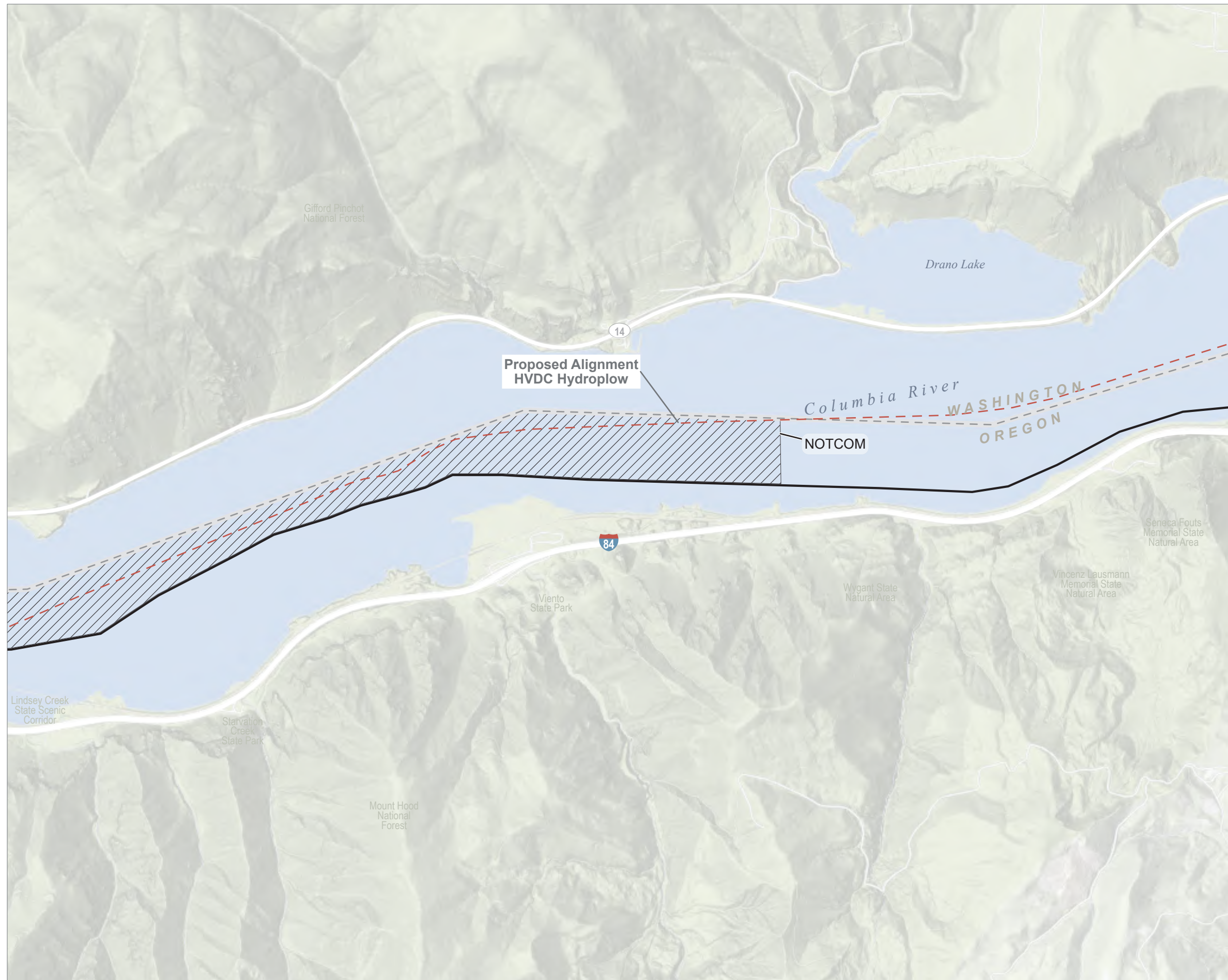
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FIGURE 1
SOIL TYPE INDEX MAP
PAGE 14 OF 21

FOR INFORMATION ONLY - CONCEPT DRAWING

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-  OREGON EFSC SITE BOUNDARY
-  STATE BOUNDARY
- SOIL UNIT**
-  NOTCOM - NO DIGITAL DATA AVAILABLE



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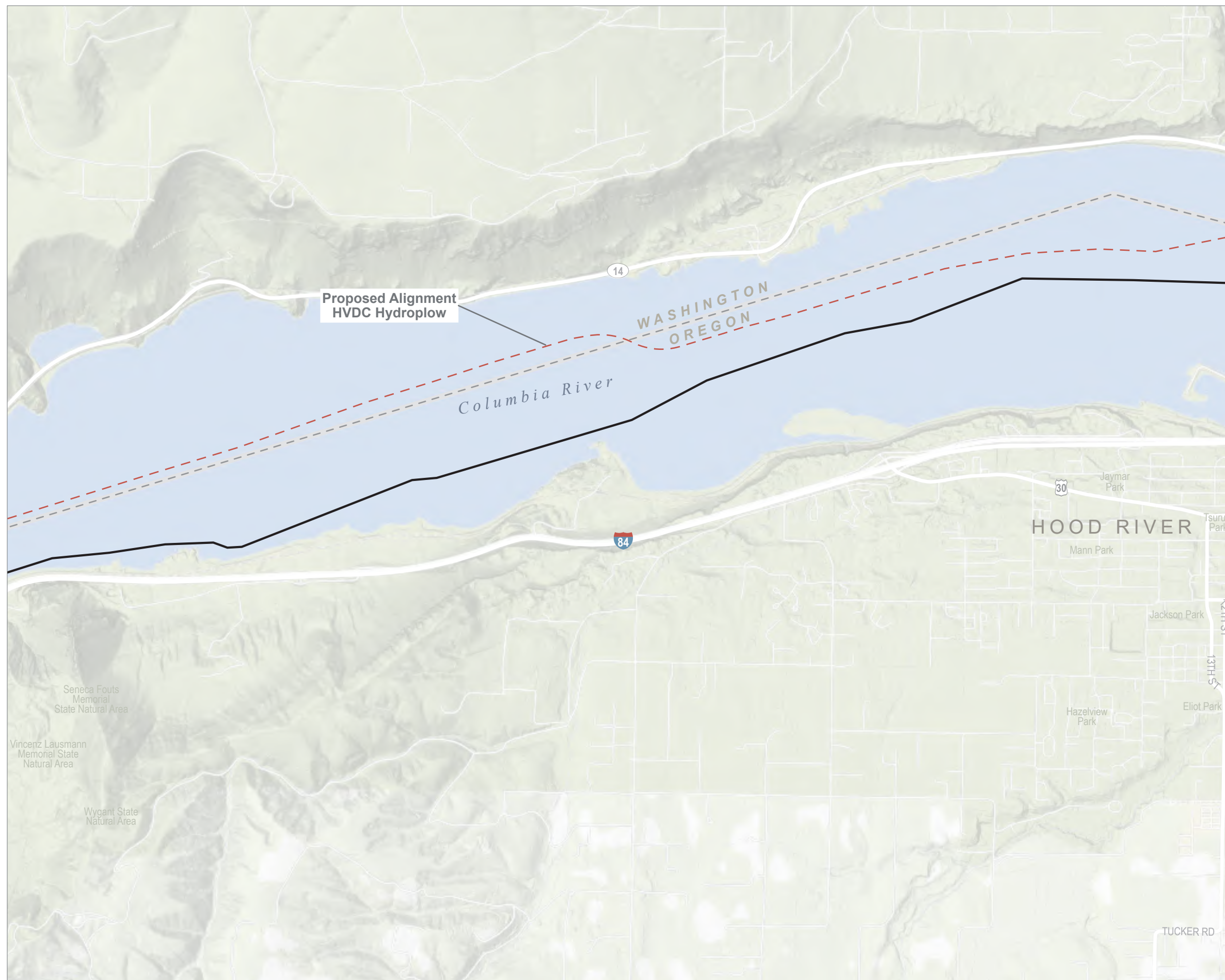
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FIGURE 1
SOIL TYPE INDEX MAP
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FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVDC HYDROFLOW
- OREGON EFSC SITE BOUNDARY
- STATE BOUNDARY



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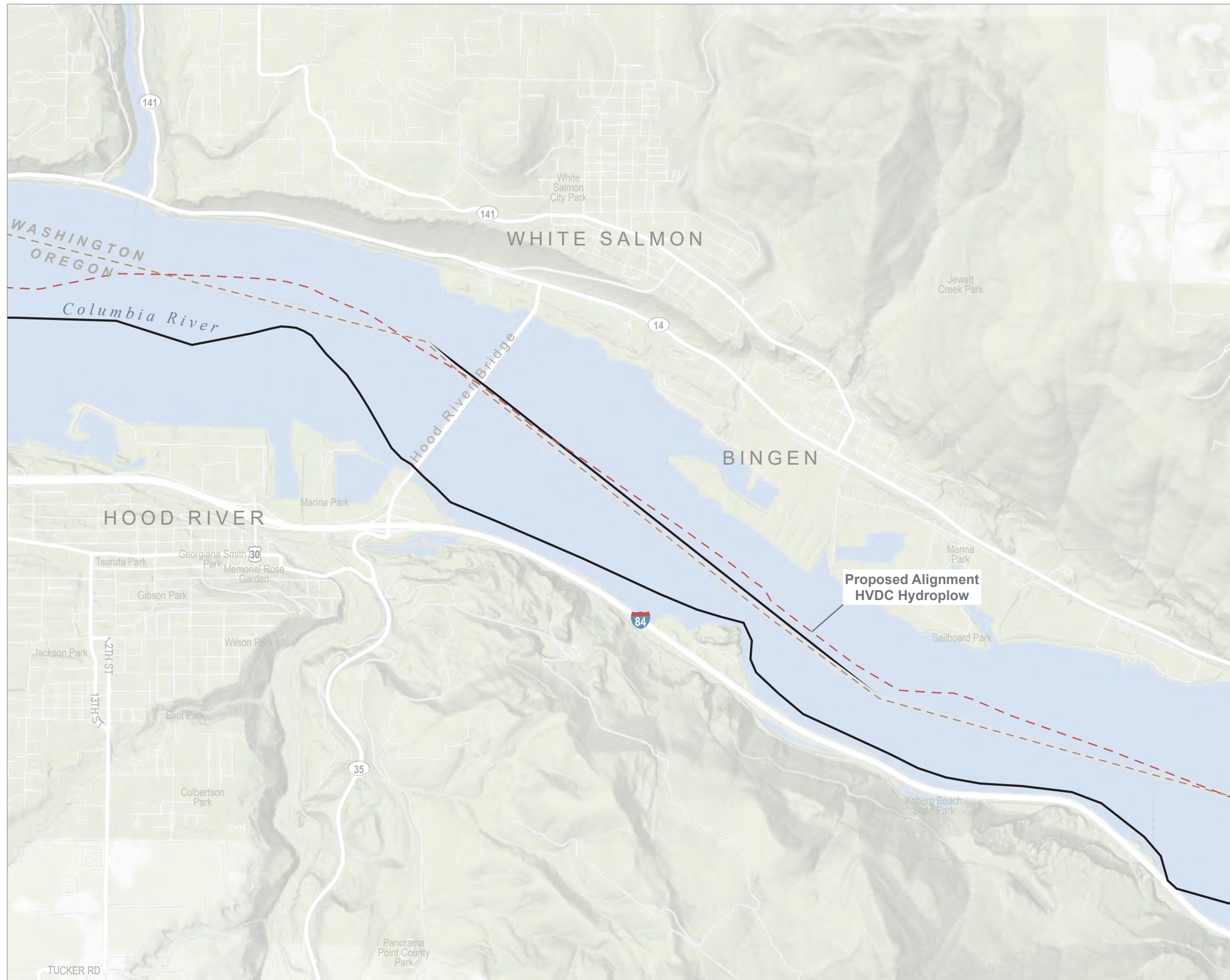
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FIGURE 1
SOIL TYPE INDEX MAP
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FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVDC HYDROFLOW
- OREGON EFSC SITE BOUNDARY
- STATE BOUNDARY



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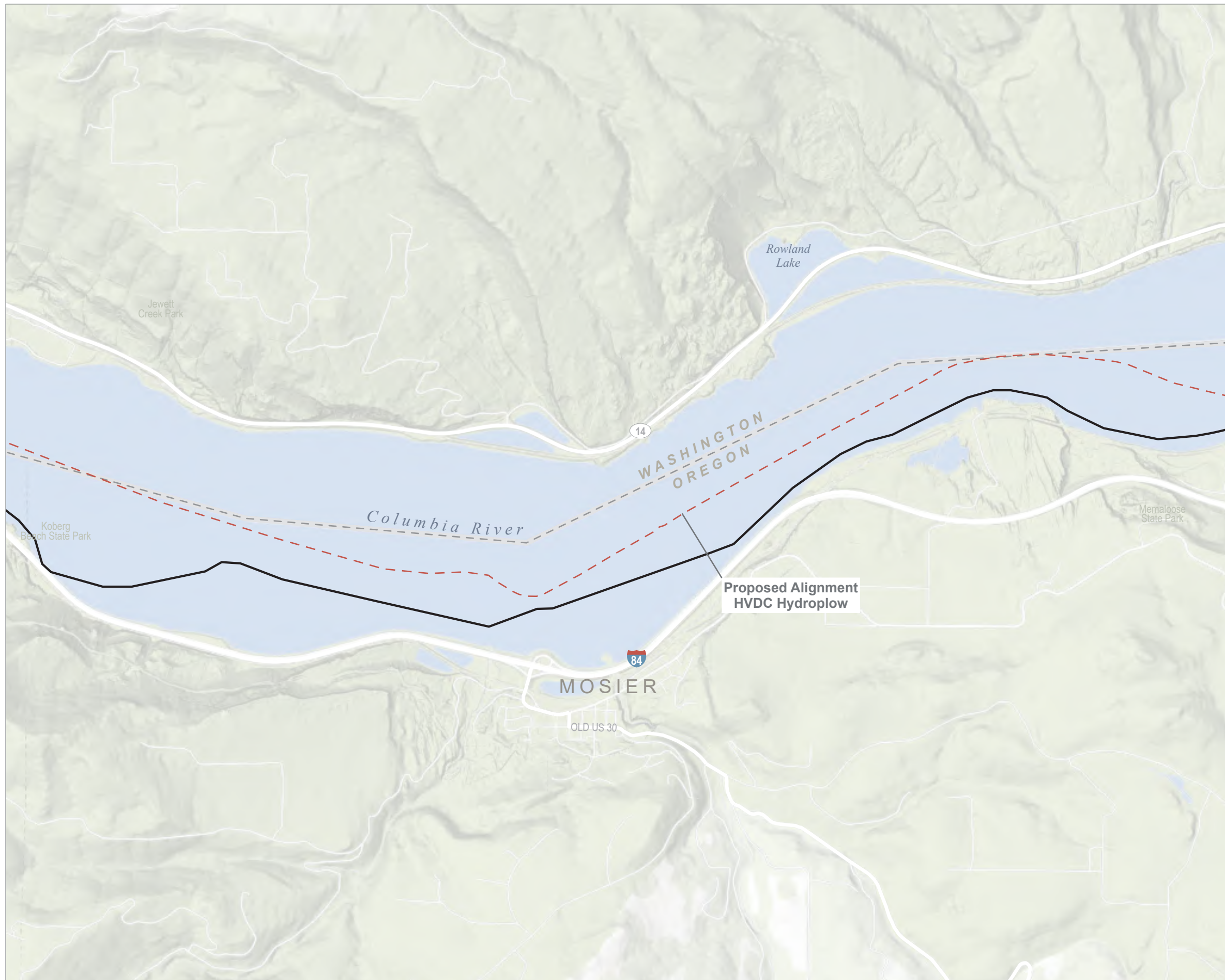
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FIGURE 1
SOIL TYPE INDEX MAP
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FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVDC HYDROFLOW
- OREGON EFSC SITE BOUNDARY
- STATE BOUNDARY



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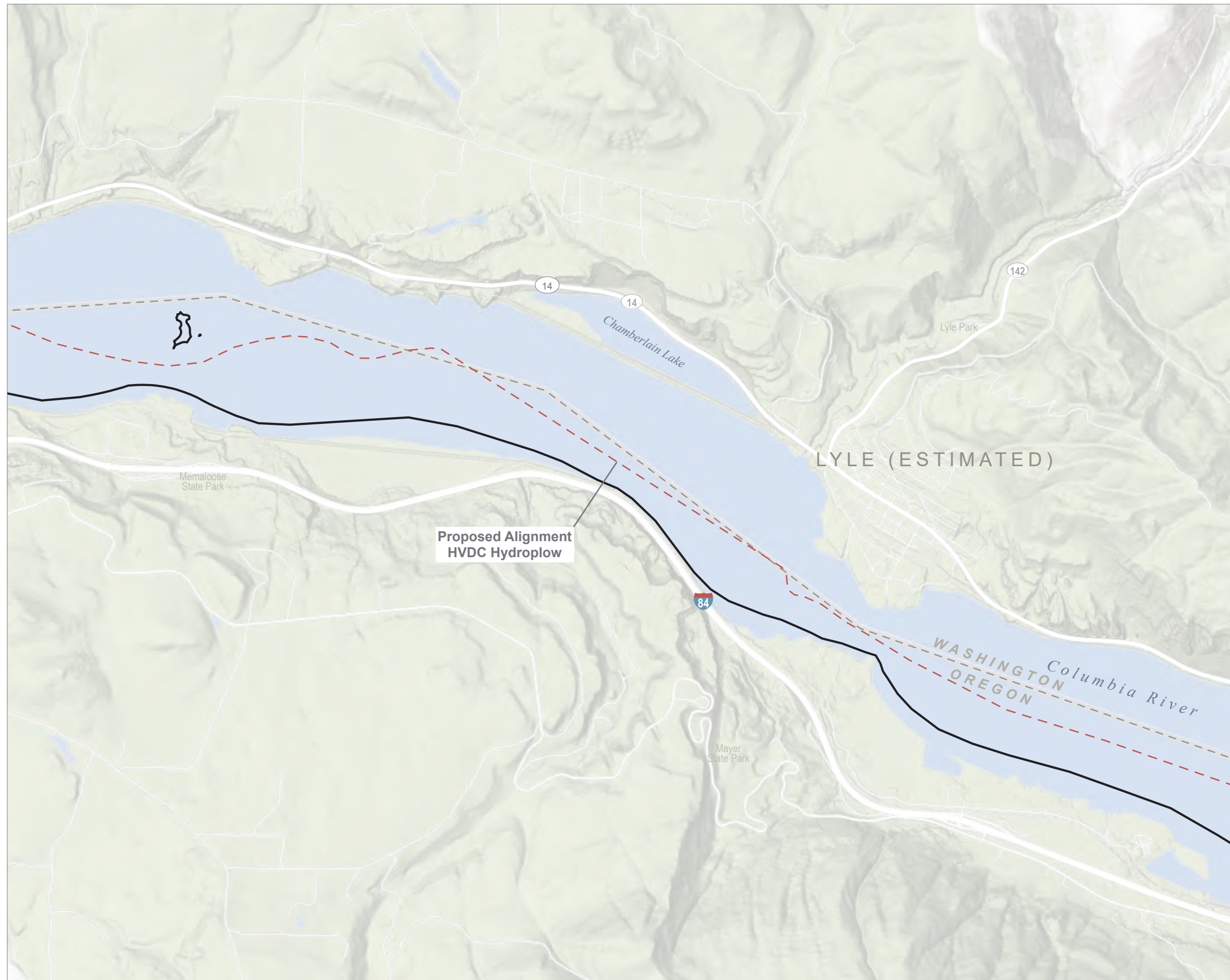
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FIGURE 1
SOIL TYPE INDEX MAP
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FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVDC HYDROFLOW
- OREGON EFSC SITE BOUNDARY
- STATE BOUNDARY



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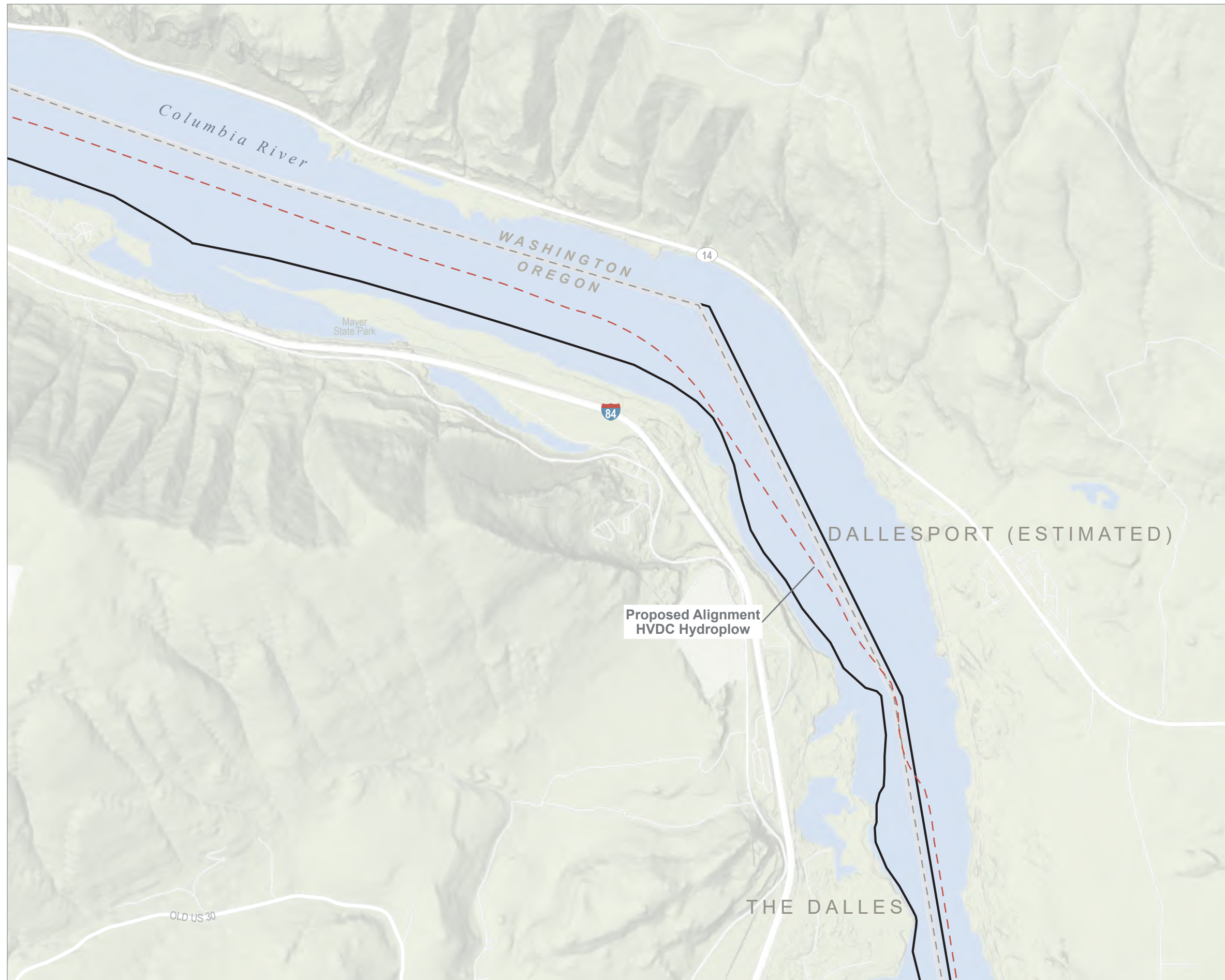
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FIGURE 1
SOIL TYPE INDEX MAP
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FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVDC HYDROFLOW
- OREGON EFSC SITE BOUNDARY
- STATE BOUNDARY



CASCADE RENEWABLE TRANSMISSION



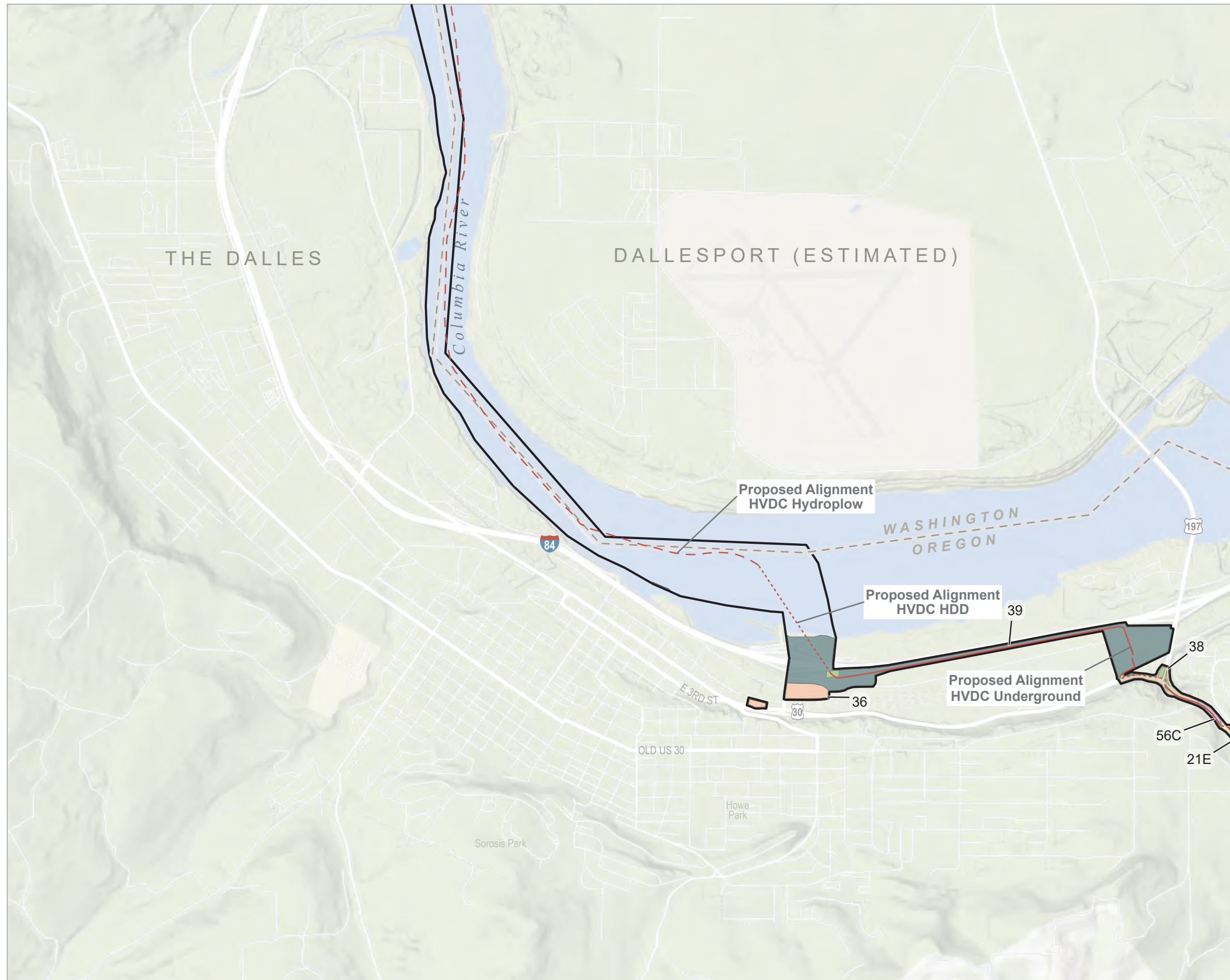
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FIGURE 1
SOIL TYPE INDEX MAP
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FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVDC HDD
- - - PROPOSED ALIGNMENT - HVDC HYDROFLOW
- PROPOSED ALIGNMENT - HVDC UNDERGROUND
- TEMPORARY HORIZONTAL DIRECTIONAL DRILLING (HDD) AREA
- TEMPORARY HORIZONTAL AUGER BORE (HAB)
- OREGON EFSC SITE BOUNDARY
- STATE BOUNDARY
- SOIL UNIT
- 21E - DUART COMPLEX, 20 TO 55 PERCENT SLOPES
- 36 - QUINCY LOAMY FINE SAND, WET
- 38 - ROCK OUTCROP-RUBBLE LAND COMPLEX
- 39 - ROCK OUTCROP-XEROPSAMMENTS COMPLEX
- 56C - WIND RIVER FINE SANDY LOAM, 8 TO 12 PERCENT SLOPES



CASCADE RENEWABLE TRANSMISSION



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FIGURE 1
SOIL TYPE INDEX MAP
PAGE 21 OF 21

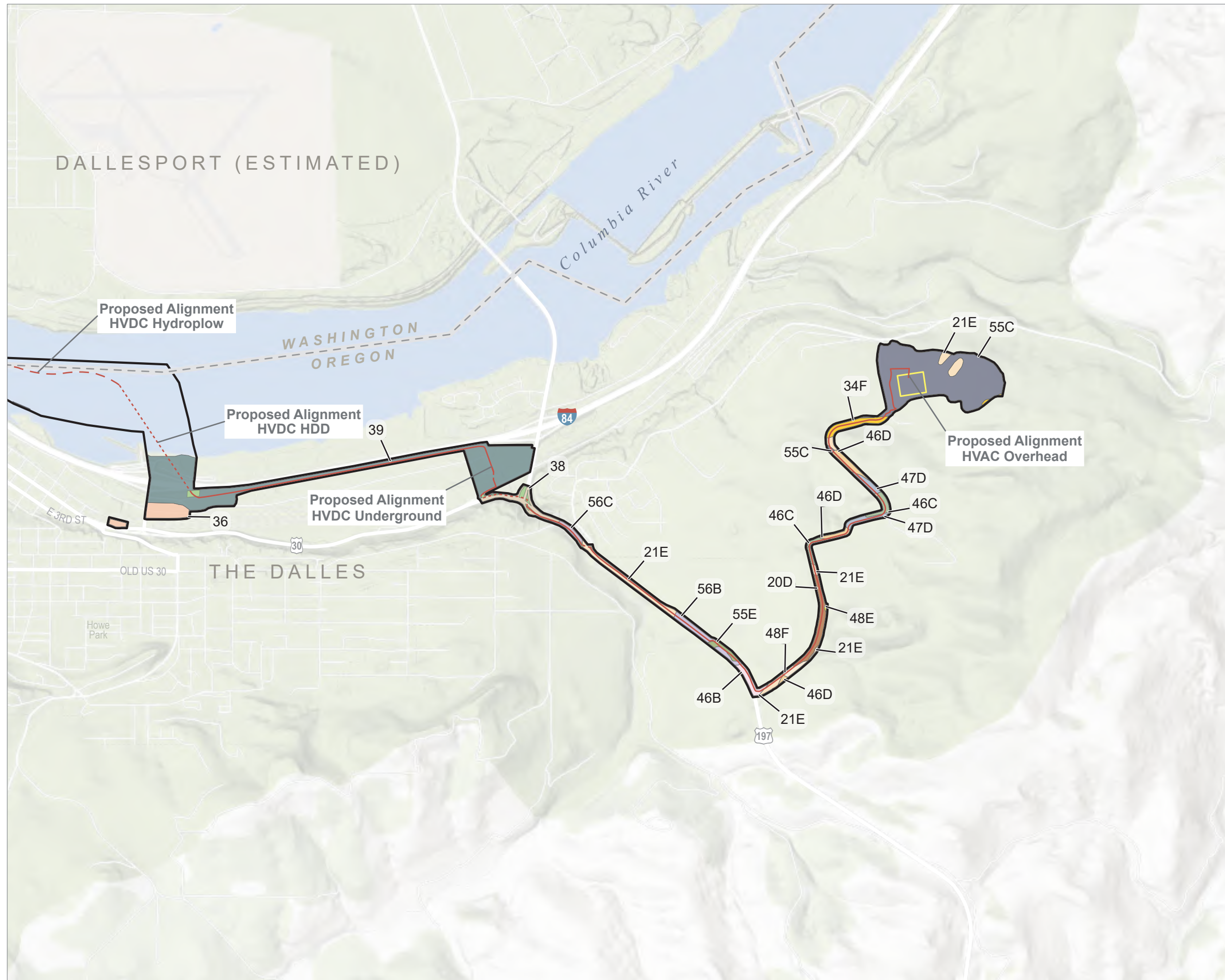
FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT - HVDC HDD
 - - - PROPOSED ALIGNMENT - HVDC HYDROFLOW
 - PROPOSED ALIGNMENT - HVDC UNDERGROUND
 - TEMPORARY HORIZONTAL DIRECTIONAL DRILLING (HDD) AREA
 - TEMPORARY HORIZONTAL AUGER BORE (HAB)
 - CONVERTER STATION
 - ▭ OREGON EFSC SITE BOUNDARY
 - ▭ STATE BOUNDARY
- SOIL UNIT**
- 20D - DUART SILT LOAM, 12 TO 25 PERCENT SLOPES
 - 21E - DUART COMPLEX, 20 TO 55 PERCENT SLOPES
 - 34F - NANSENE SILT LOAM, 35 TO 70 PERCENT SLOPES
 - 36 - QUINCY LOAMY FINE SAND, WET
 - 38 - ROCK OUTCROP-RUBBLE LAND COMPLEX
 - 39 - ROCK OUTCROP-XEROPSAMMENTS COMPLEX
 - 46B - WALLA WALLA SILT LOAM, 3 TO 7 PERCENT SLOPES
 - 46C - WALLA WALLA SILT LOAM, 7 TO 12 PERCENT SLOPES
 - 46D - WALLA WALLA SILT LOAM, 12 TO 20 PERCENT NORTH SLOPES
 - 47D - WALLA WALLA SILT LOAM, 12 TO 20 PERCENT SOUTH SLOPES
 - 48E - WALLA WALLA SILT LOAM, 20 TO 35 PERCENT SOUTH SLOPES
 - 48F - WALLA WALLA SILT LOAM, 35 TO 50 PERCENT SOUTH SLOPES
 - 55C - WATO VERY FINE SANDY LOAM, 7 TO 12 PERCENT SLOPES
 - 55E - WATO VERY FINE SANDY LOAM, 20 TO 35 PERCENT NORTH SLOPES
 - 56B - WIND RIVER FINE SANDY LOAM, 0 TO 8 PERCENT SLOPES
 - 56C - WIND RIVER FINE SANDY LOAM, 8 TO 12 PERCENT SLOPES

CASCADE RENEWABLE TRANSMISSION



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Attachment 1. Example SPCC Plan from the Hudson Project

Spill Prevention, Control and Countermeasure (SPCC) Plan

Hudson Transmission Project 1 Railroad Avenue Ridgefield, NJ 07657

Index of Revisions						
Rev.	Date	Revision Type	Pages	Remarks	Name of Reviser	Name of Approver
0	02/20/13	Initial Release	All	Initial Plan	M. Fischer CHEE, LLC	R. Niederlander
1	02/09/17	Admin Update	Cover, 4, 6, 7, 15, A-1, Table 2, Table 3, Appendix B	Update O&M Manager, misc. revisions, updates	C. Saenz	M. Schmidt
2	02/19/18	5-year Certification	All	No material changes	M. Fischer CHEE, LLC	M. Schmidt
3	02/15/23	5-year Certification	All	Update NJ release reporting requirements in Appendix B, document format changes	M. Fischer CHEE, LLC	M. Schmidt

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[APPENDIX B - RELEASE REPORTING INSTRUCTIONS](#)

[Initial Release Notification](#)

[Emergency Phone Lists](#)

[Follow Up Reporting](#)

[New Jersey Online Release Report Instructions](#)

[APPENDIX C – FIVE-YEAR PLAN REVIEW LOG](#)

[APPENDIX D –SPCC INSPECTION CHECKLISTS](#)

[APPENDIX E – SPCC ANNUAL BRIEFING FORM AND TRAINING MATERIALS](#)

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1.0 PLAN PURPOSE

The purpose of this Spill Prevention, Control and Countermeasure (SPCC) Plan is to describe the structures, procedures, and plans in place to prevent the discharge of oil into or upon the navigable waters of the United States, or onto adjoining shorelines. It describes the measures implemented and proposed (if applicable) to prevent oil discharges from occurring. However, should a discharge of oil occur, this Plan also describes the procedures that will be implemented to mitigate the release and minimize threats to public health and safety and to the environment.

This Plan has been prepared to meet the requirements of the United States Environmental Protection Agency (EPA) Regulations on Oil Pollution Prevention (Title 40 Code of Federal Regulations Part 112) and applicable state regulations. Spill Prevention, Control and Countermeasures (SPCC) Plans are required for any facility engaged in drilling, producing, gathering, storing, processing, refining, transferring or consuming oil and oil products, providing that all three of the following conditions are met:

- The facility is non-transportation related;
- The aggregate above ground storage capacity is greater than 1,320 gallons (including all containers fifty-five gallons or greater) or the total underground storage capacity is greater than 42,000 gallons; and
- Due to its geography and location, oil spilled at the facility could reasonably be expected to reach navigable waters of the United States or adjoining shorelines.

Siemens Energy Inc. (the Company) operates the Hudson Transmission Project, a high voltage direct current (HVDC) converter station located adjacent to waters of the United States and/or adjoining shorelines, wetlands or storm drains leading to waters of the U.S. Facility operations necessitate the use and storage of oil in quantities subject to SPCC requirements. Facilities include the HVDC Converter Station, transition and pressurization vaults located onshore in New Jersey and New York, and the submarine cable; however only the Converter Station is subject to SPCC planning requirements (see Section 4.3).

2.0 PLAN CERTIFICATIONS, AMENDMENTS & RESPONSIBILITIES

The facility covered under this Plan does not pose a risk of substantial harm under 40 CFR 112, as certified in the Substantial Harm Determination included in [Section 2.1](#). Based upon the total quantity of oil onsite, the facility is not considered a “major facility” in New Jersey. Therefore, the facility is not subject to state-mandated facility oil response planning requirements.

This Plan will be amended whenever there is a change in the facility design, including construction, operation, or maintenance programs which materially affect (either increasing or decreasing) the potential for discharge of oil into or upon the navigable waters of the U.S. or adjoining shorelines. Amendments to the plan will be made within six months of completion of the changes. All technical amendments will be reviewed and certified by a Professional Engineer (PE) on the PE Certification Page included in [Section 2.2](#).

This Plan will be reviewed and evaluated every five years in light of new technologies and/or new regulations. The Five-Year Review is documented in [Appendix C](#) of this Plan. The Plan will also be updated as needed to reflect any administrative changes including changes in key personnel, notification contacts, and the like. All changes, updates, reviews, PE certifications and amendments are recorded in detail in the Revisions Table in [Section 2.3](#).

The O&M Manager is responsible for authorizing the resources necessary to implement this Plan including qualified personnel; training, procedures, financial resources, and management approval in order to fully comply with SPCC requirements in the Management Commitment Certification in [Section 2.4](#). The O&M Manager may delegate responsibility to others in order to implement the Plan. The O&M Manager, acting as SPCC Coordinator, is also responsible for overall administration and implementation of the SPCC Plan. This includes preparation, revision and distribution of the Plan; implementation of employee training; oversight and coordination of emergency response activities; and notification of regulatory and emergency response agencies in the event of reportable oil discharges from the facility.

Facility personnel are responsible for compliance with the SPCC Plan. This includes implementation of spill prevention and control procedures; equipment and systems maintenance, inspection, and repair; proper recordkeeping; and notification to the O&M Manager of necessary plan amendments or in the event of an oil release.

2.1 Certification of Substantial Harm Determination

This certification covers all facilities included in this Plan.

Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons? **NO**

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area? **NO**

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in 40 CFR part 112 Appendix C, Attachment C-III or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? **NO**

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the 40 CFR part 112 Appendix C, Attachment C-III or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake? **NO**

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years? **NO**

Certification:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

A handwritten signature in black ink, appearing to read "Manfred Schmidt", is written over a light blue horizontal line.

Manfred Schmidt
Operations and Maintenance Manager
Siemens Energy, Inc. (Facility Operator)

2.2 Professional Engineer Certification

As a Registered Professional Engineer, I attest that I am familiar with the requirements of 40 CFR 112 and have visited and examined the facilities, or have overseen examination of the facilities by appropriately qualified personnel.

I attest that this Spill Prevention, Control, and Countermeasure (SPCC) Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and the requirements of 40 CFR 112; that procedures for required inspections and testing have been established; and that this Plan is adequate for the subject facilities.

Note: This certification in no way relieves the Company of its duty to prepare and fully implement this SPCC Plan in accordance with the requirements of 40 CFR 112. This Plan is valid only to the extent that the facilities maintain, test and inspect equipment, containment and other devices as prescribed in this Plan.

Name: Stephen C. Doret

Firm: Mill Road Engineering

State: New York

Registration Number: 084245

Signature: Stephen C Doret

Date: January 29, 2018

Place PE Stamp Here:



2.3 Plan Revision and Amendment

Technical amendments that are incorporated into the body of this Plan shall be recorded below by the Professional Engineer making the amendment, noting the date of incorporation and the description of the changes. Effective July 17, 2002, five-year Plan reviews and evaluations of the need for further amendment are required. That determination is made in [Appendix C](#) of this Plan and incorporated in the table below. Non-technical Plan revisions are also noted below.

DATE	ENGINEER / REGISTRATION NUMBER	DESCRIPTION OF CHANGES	PAGES
02/20/13	Stephen C. Doret NY# 084245 Mill Road Engineering, Westborough MA SPCC Plan developed by: The Center for Health, Energy & the Environment, LLC, Strafford NH	Original Plans for newly constructed facilities	All
02/09/17	n/a SPCC Plan updated by Siemens Energy Inc.	Administrative updates to O&M Manager, and misc. revisions	Cover, 4, 6, 7, 15, A-1, Table 2, Table 3, Appendix B
02/19/18 5-Year Review	Stephen C. Doret NY# 084245 Mill Road Engineering, Westborough MA SPCC Plan revised by: The Center for Health, Energy & the Environment, LLC, Strafford NH	Revision 2: Administrative revisions, updates to appendices, and format revisions. Update to Figure 2 to add outdoor drum containment	All
02/15/23 5-Year Review	SPCC Plan revised by: The Center for Health, Energy & the Environment, LLC, Strafford NH	Administrative updates and format revisions	All

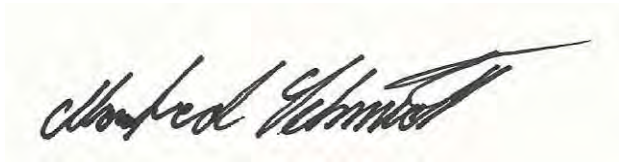
2.4 Management Commitment of Resources

In addition to implementing the preventative measures described in this Plan, the Company will also, in the event of a discharge:

- Make available all onsite trained personnel to perform response actions;
- Obtain assistance from additional on-call personnel as necessary;
- Coordinate fully with local, state, and federal authorities on response and cleanup operations.
- Maintain all onsite oil spill control equipment described in this Plan;
- Ensure appropriate access to all emergency response personnel, vehicles and equipment for response and cleanup;
- Periodically review the adequacy of third-party response capability with pre-approved response/cleanup contractors as necessary; and
- Maintain formal agreements with response and cleanup contractors who will provide assistance in responding to an oil discharge and/or completing cleanup.

Certification:

As O&M Manager responsible for operations and maintenance of subject facilities, I have the authority to commit the necessary resources to implement this Spill Prevention Control and Countermeasure (SPCC) Plan and to delegate authority for implementation of this Plan to others as described in this Plan.

A handwritten signature in black ink, appearing to read "Manfred Schmidt", is written on a light-colored, slightly textured background.

Manfred Schmidt
Operations and Maintenance Manager
Siemens Energy, Inc. (Facility Operator)

3.0 GENERAL INFORMATION

This Plan details the Company's conformance with the requirements of 40 CFR Part 112 and with applicable state regulations. General information is found in Sections 1 through 11 in this, the main body of the Plan. Additional facility-specific information is found in [Appendix A](#) of this Plan including a site layout figure and tables. Spill reporting information is included in [Appendix B](#), and five-year Plan reviews are recorded in [Appendix C](#).

3.1 Cross Reference to 40 CFR 112

Since this Plan does not exactly follow the sequence of 40 CFR 112, a cross-reference listing to applicable sections of 40 CFR 112 is included below.

SPCC Provision	Description	Plan Section(s)
112.3(d), 112.5(c)	Professional Engineer Certification	Section 2.2
112.3(e)	Location of SPCC Plan	Section 3.4; Appendix A
112.4	Submittal of Plan to EPA Administrator	Appendix B
112.5(a), (b)	Plan Amendment and Review	Section 2.3; Appendix C
112.7	Management Commitment	Section 2.4
112.7	Cross Reference with SPCC Rule	Section 3.1
112.7	Facilities and Equipment not Operational	Section 5.0
112.7(a)(1)	Conformance with SPCC Rule	Plan in Total
112.7(a)(2)	Environmental Equivalence	Section 4.4.1, Appendix A
112.7(a)(3)	General Facility Information and Layout	Section 3.2, 3.3; Appendix A
112.7(a)(4)-(5)	Discharge Notification and Procedures	Section 9; Appendix B
112.7(b)	Potential Discharge Volumes and Direction of Flow	Section 4; Appendix A
112.7(c)	Containment and Diversionary Structures	Section 6; Appendix A
112.7(d)	Practicability of Secondary Containment	Section 6.1
112.7(e)	Inspections, Tests and Records	Section 7
112.7(f)	Personnel, Training and Discharge Prevention Procedures	Sections 7, 8, 9, 10; Appendix E
112.7(g)	Security	Section 3.5
112.7(j)	Conformance with Applicable State and Local Requirements	Plan in Total; Appendix A, B
112.8(b)	Facility Drainage	Section 3.3, Appendix A
112.8(c)	Bulk Storage Containers	Section 4.4; Appendix A
112.20(e)	Substantial Harm Determination	Section 2.1

3.2 Facility Overview

Facility Address	Hudson Converter Station 1 Railroad Avenue Ridgefield, NJ 07657
Facility Type	Onshore, non-production facility
Date of Initial Operation	2013
Operator	Siemens Energy, Inc. 7000 Siemens Road Wendell, NC 27591
Local Contact	Manfred Schmidt, O&M Manager Siemens Energy, Inc. 333 Sayreville Blvd. Sayreville NJ 08872 (732) 613-7904 office, (732) 353-8027 cell
Owner	Hudson Transmission Partners, LLC 501 Kings Highway East, Suite 300 Fairfield, CT 06825 (203) 416-5597

The Hudson Transmission Project is a 660-MW electric transmission link between New Jersey and York City. It consists of the Hudson Converter Station located at 1 Railroad Avenue in Ridgefield, New Jersey; a submarine transmission cable under the Hudson River; two transition vaults; and related upland transmission lines ([Figure 1](#)).

The facility is a “back-to-back” High Voltage Direct Current (HVDC) Converter Station. The transmission link begins at the Hudson Converter Station and interconnects with the Public Service Electric & Gas (PSE&G) Company’s Bergen Substation. The Converter Station converts incoming three-phase alternating current (AC) from the substation to direct current (DC) and then back to AC at a different voltage for transmission to New York City. From the converter station, an underground three-phase power line runs approximately three miles along existing railroad rights-of-way and through an inactive railroad tunnel to the Hudson River at a landfall point at 440 River Road in Edgewater, New Jersey.

There, the power line enters the Hudson River at the southwestern corner of the Edgewater Commons Shopping Center parking lot. Prior to entering the river, the upland cable transitions to submarine cable via an underground transition vault system built within the parking lot which leads to an underground pressurization vault across the street. At the pressurization vault, the power cable becomes oil-filled. The submarine cable continues from this point and extends across and down the Hudson River approximately four miles south to a landfall point in New York. The oil-filled cable is buried a minimum of ten feet below the present river bottom. The cable crosses an existing federal navigation channel roughly parallel to West 75th Street in Manhattan, then proceeds southward down the river on the New York side for about three miles before turning toward the landfall point between Piers 92 and 94 in Manhattan. The submarine cable transitions to land-based underground cable at this point, and continues to West 52nd Street, just east of 12th Avenue (West Side Highway). From this underground pressure/transition point, the cable is no longer oil-filled. It then runs under the eastern sidewalk of 12th Avenue and ends at the Consolidated Edison Company of New York West 49th Street substation.

Figure 1: Project Location Map



The Converter Station site occupies approximately twenty-one acres, of which about eight acres are used. The site is located just east of the New Jersey Turnpike and is bounded to the east by Railroad Avenue, to the north by Hendricks Causeway, to the west by a wetland and to the south by neighboring buildings on Railroad Avenue. A portion of the site was previously occupied by a warehouse.

The Converter Station consists of a Control Building including a Valve Hall and DC Hall, a small outbuilding for equipment storage (scissor-lift garage), and an outdoor switchyard containing oil-filled and non-oil-filled electrical equipment and switchgear. [Figure 2 in Appendix A](#) illustrates the site location and general layout of the facility including buildings, stormwater conveyance systems, and secondary containment structures. All equipment, systems, and containers subject to SPCC regulations are located on the figure.

3.3 Facility Drainage and Effluent Treatment Facilities

The site is generally flat, sloping slightly toward the south. Stormwater runoff from the facility generally flows overland or percolates down into the subsurface, which has a geotextile base overlain by four feet of soil and top gravel. Two stormwater drains run across the west driveway near each end of the driveway and discharge into a riprap area, ultimately discharging into the wetland area. The drains are not located near any oil-filled equipment. A municipal stormwater system runs underneath the site from Railroad Avenue toward the wetland area. There are no inlets from the site to the municipal stormwater system.

Transformers and the shunt reactor (with the exception of the local utility-owned and maintained station service units) sit in concrete containment structures described in Section 4. The six in-service transformers, two spare transformers, and the shunt reactor are mounted on concrete pads with containment pits. Each containment pit is equipped with a discharge line that connects to a float-switch operated “Oil-Minder” sump. If oil is detected in the sump the Oil-Minder automatically inhibits pump action to prevent a discharge. The containment pits and the oil sumps are electronically monitored and alarmed, and are visually inspected for the presence of oil, grease, or other contaminants on a weekly basis. If oil, grease or other contaminants are observed in the sumps, the material is pumped to a tank truck and managed in accordance with applicable waste regulations. As stormwater collects in the sumps, it is pumped out on an as-needed basis. If the water contains no oil, grease or other contaminants, the stormwater is pumped to the gravel low point areas where it flows by way of the points and swales to the thru-drains underneath the road and towards the riprap slope on the converter station’s west side.

Floor drains inside the Control Building/Valve Hall discharge to the municipal sanitary sewer system. There are no oil-filled systems or equipment located in the vicinity of building floor drains.

3.4 Location of SPCC Plan

A copy of this Plan is located onsite at the Hudson Converter Station. Copies are also available from the O&M Manager.

3.5 Security and Facility Monitoring

The facility is remotely operated and monitored from onsite Control Room(s) in Sayreville New Jersey and Hicksville, New York, one of which is designated as the primary Control Center at all times and staffed 24 hours/day, which provides an added level of discharge prevention and detection.

Security measures include the following elements:

- The Converter Station has perimeter fencing, security cameras and gated and locked access roads, which are kept locked at all times except when employees or contractors enter or leave.
- The Operator has remote control of the locked access points.
- An authorized person is always onsite when non-employees are given access.
- The transition and pressure vaults are kept locked at all times and are remotely monitored for cable oil pressure.
- Buildings are kept locked when unattended.
- Facilities are equipped with security alarms, which would alert the Control Room of unauthorized access.
- The Converter Station is staffed by operations and maintenance personnel during normal business hours, generally between 6 am and 4 pm Monday through Friday.

4.0 POTENTIAL FAILURE MODES AND SECONDARY CONTAINMENT STRATEGIES

This section describes the potential failure modes and secondary containment structures, equipment, and procedures, which are in place to prevent a release of oil from equipment and containers into navigable waters or adjoining shorelines, runoff streams, and the like. The equipment and procedures used in this Plan are practicable, consistent with good engineering practices, and adequate for the facility. In addition, the plans and procedures take advantage of the response capabilities of company personnel and the environmental cleanup contractor under contract to the Company to provide emergency response services if needed.

Oil storage subject to SPCC requirements consists of various pieces of oil-filled electrical equipment and a small number of 55-gallons drums which are considered portable “bulk storage containers” under 40 CFR 112. In addition, the switchyard contains numerous oil-filled AC filter capacitors; however, each compartment/unit contains less than 55 gallons of oil and is therefore exempt from SPCC planning requirements. There are no underground or aboveground oil storage tanks onsite.

All equipment and containers subject to SPCC regulation are equipped with secondary containment as described below. Refer to [Table 1 in Appendix A](#) for equipment designation, location, oil volume, oil type, secondary containment measures, and additional protective strategies. Refer to [Table 2 in Appendix A](#) for a listing of oil spill and emergency equipment available onsite.

4.1 Transformers

Transformers are electrical equipment filled with petroleum-based dielectric insulating fluid and change voltage through a portion of the electrical system. The oil is used for transformer cooling and electrical insulation of the unit. Transformers are generally equipped with oil level indicators or oil level alarms, and pressure release devices to prevent rupture of the transformer tank.

Electric utility experience indicates that there is a very small potential for an oil release to occur from a transformer. Potential modes of failure for in-service transformers could include a discharge of oil mist from the pressure release device or, in severe cases, rupture of the transformer casing due to a sudden build-up of pressure, or as the result of a fire or explosion. Most releases from transformers are the result of small weeps or leaks, which can develop at bolted flanges, tank welds, valves, or other fittings. The quantity of oil lost from a typical leak is small, less than 1 gallon.

4.1.1 Primary and Spare Converter Transformers

The facility has six primary Converter Transformers and two Spare Converter Transformers, each containing approximately 15,640 gallons of electrical insulating oil. The transformers are arranged in two sets of three single-phase primary units and an associated spare unit. The two sets of transformers are located outside on the north and south faces of the Valve Hall Building, respectively (see [Figure 2 in Appendix A](#)). Each set of three primary transformers and the associated spare unit share a combined containment pit approximately 3 feet deep with 18 inches of crushed stone used for fire protection, and coated on the interior with oil-resistant epoxy coating. Each combined pit is also equipped with an Oil Minder described in section 1.1 above.

Each primary transformer containment pit is approximately 46 by 28 feet in area. Each spare transformer pit is approximately 42 feet by 21 feet in size. Crushed stone has an estimated void space of 30% and foundations reduce the containment capacity by approximately 28% of the total volume, resulting in a net containment capacity of approximately 36,555 gallons, sufficient to contain a total release from any one unit and to provide adequate freeboard for a 25-year, 24-hour precipitation event of an estimated 6.5 inches. In addition, the Oil Minder continuously removes precipitation from the containment sumps in the absence of sensed oil.

The oil in primary transformer tap changers is continuously filtered. The filtering system is equipped with an alarm that would immediately indicate if a filter became clogged, potentially resulting in an oil leak from the system. Filters are replaced as needed, approximately every one to two years. At that time, small amounts of makeup oil may be added back into the system if needed. The primary transformers are also equipped with oil level indicators and oil level alarms, and are continuously monitored for oil level, temperature, and pressure from the primary Control Room. This monitoring scheme helps to ensure that any release of oil would be discovered quickly.

4.1.2 Shunt Reactor

The Shunt Reactor Transformer is located in the switchyard to the southwest of the Control Building. It contains approximately 9,925 gallons of electrical insulating oil. The unit sits within a concrete containment pit approximately 40 feet by 33 feet in area with a depth of approximately 3 feet including

18 inches of crushed stone. The foundation reduces the containment capacity by approximately 25% of the total volume, resulting in a net containment capacity of approximately 14,480 gallons, sufficient to contain a total release and to provide adequate freeboard for a 25-year, 24-hour precipitation event of 6.5 inches. In addition, the Oil Minder continuously removes precipitation from the containment sump, in the absence of sensed oil.

The Shunt Reactor is also equipped with an oil level indicator and oil level alarm and is continuously monitored for oil level, temperature, and pressure. This monitoring scheme helps to ensure that any release of oil would be discovered quickly.

4.1.3 Station Service Transformers

Two Station Service Transformers are located outside the west end of the Control Building. Each unit contains approximately 470 gallons of electrical insulating oil. These units are owned and maintained by the local utility (PSE&G). The units sit on solid concrete foundations with no secondary containment. In the event of a release, oil would infiltrate into the switchyard crushed stone surface where it could be cleaned up quickly.

4.2 Oil-filled AC Filter Capacitors

AC filter capacitors are electrical components filled with petroleum-based dielectric insulating fluid, used to control voltage and current distortion in the electrical system. The fluid is used for internal electrical insulation. Capacitor operation is monitored continuously in the primary Control Room. Potential failure modes for capacitors could include weeping of oil from the unit, or possibly, rupture due to fire or explosion. All of the oil-filled capacitors contain less than 55 gallons of oil in each compartment or unit and are therefore not subject to 40 CFR 112.

4.3 Pressure Vaults and Submarine Cable System

The oil-filled submarine and underground electric cable and the two associated underground pressure/transition vaults (one in New Jersey and one in New York) comprise a closed, pressurized system containing electrical insulating oil. The oil-filled cable is a self-contained fluid-filled cable buried a minimum of 10 feet below the bottom of the Hudson River, in areas outside the limits of the Federal Navigation Channel, and a minimum of 15 feet below the river bottom within the Federal Navigation Channel.¹ The system is completely buried and contains approximately 15,565 gallons of electrical insulating oil. Therefore, these facilities are not subject to 40 CFR 112, in accordance with the exemption at 40 CFR 112.1(d)(2) for facilities with completely buried containers and systems of less than 42,000 gallons of capacity.

4.4 Fifty-Five Gallon Drums

The only bulk storage containers as defined in 40 CFR 112.2 located at the facility are a small number of 55-gallon drums of makeup oil for electrical equipment and occasionally, drums of waste oil that may be

¹<https://www.nan.usace.army.mil/Media/Fact-Sheets/Fact-Sheet-Article-View/Article/487535/fact-sheet-hudson-river-channel-ny-40-ft/>

removed from electrical equipment or containment sumps. Potential discharge of oil from a 55-gallon drum could result from over-filling, leakage, rupture, or spillage during handling operations.

Drums are stored inside two manufactured containment units (“dog houses”), one located near the vehicle parking area and the other near the 230-kV spare transformer. The units are equipped with weathertight covers and secondary containment sumps with a containment capacity of more than 55 gallons, sufficient to contain a total release from a drum. A small number of new or used oil drums may also be stored inside the Valve Hall on containment pallets with a spill kit located nearby.

4.4.1 Integrity Testing & Environmental Equivalence

The 55-gallon drums, being portable “bulk storage containers” as defined by 40 CFR 112.2 are required under 40 CFR 118(c)(6) to be periodically integrity tested. However, 40 CFR 117(a)(2) allows for certain deviations from SPCC requirements if they provide equivalent environmental protection. In the case of 55-gallon drums, several operational procedures provide environmental equivalence to integrity testing. Drums are stored indoors or outdoors but out of the weather. Spill containment pallets serve to protect drums from contact with water or other corrosive conditions and from physical or mechanical damage. Employees are trained in proper drum handling and storage as part of SPCC training. Drums are visually inspected at least weekly for signs of product leakage, overall integrity, and proper drum management. Therefore, periodic integrity testing of these containers is not conducted or warranted.

4.5 Oil Transfer Operations

There are no loading/unloading areas or racks as defined in 40 CFR 112 at the facility. However, oil is filtered continuously through tap changers on in-service Converter Transformers. Oil may be manually transferred occasionally between oil-filled electrical equipment and 55-gallon drums during periodic transformer maintenance procedures. Residual oil may also be transferred occasionally from containment sumps into 55-gallon drums for disposal. In general, the potential for a release during oil transfer operations could result from spillage, leakage, or rupture of the drum or loss of oil from a component during the manual pumping operation.

5.0 FACILITIES & EQUIPMENT NOT YET OPERATIONAL

The measures currently in place at the facility to prevent and mitigate an oil discharge to waters of the U.S. or adjoining shorelines are generally adequate for the facility, and conform to good engineering practice, and to applicable industry standards. All planned equipment and systems are currently in place at the facility. During SPCC Plan 5-year reviews, the facility will be evaluated in light of new technologies and new regulations, and modifications to the Plan and/or to onsite control strategies will be made if warranted.

6.0 SECONDARY CONTAINMENT PRACTICABILITY AND CALCULATIONS

6.1 Practicability of Secondary Containment

It has been determined that the secondary containment measures as described in 40 CFR 112.7(c)(1)(i)–(vii) are practicable for all subject oil-filled equipment and systems. Therefore, the provisions of 40 CFR 112.7(d) do not apply to equipment at the facility.

6.2 Secondary Containment Calculations

The capacity of secondary containment structures is calculated as the interior volume of the space, less the volume taken up by other structures such as transformer foundations, cable trays, or piping.

Outdoor secondary containment calculations take into account sufficient freeboard to allow for the estimated 25-year, 24-hour precipitation event as suggested by EPA in the preamble to 40 CFR 112. A conservative value of 6.5 inches of precipitation has been used in this Plan based on the National Oceanic and Atmospheric Administration (NOAA) Precipitation Frequency Atlas of the United States - NOAA Atlas 14.²

Outdoor secondary containment calculations are, generally:

Net Containment Volume in gallons =

$[(L_s \times W_s) - (L_d \times W_d)] \times [D_s - (D_{precip})] \times 7.48 \text{ gallons/cubic foot.}$

Where (in feet):

L_s =	interior length of structure
W_s =	interior width of structure
L_d =	displaced length due to interior foundations
W_d =	displaced width due to interior foundations
D_s =	interior depth of structure
D_{precip} =	inches of precipitation in a 25-year, 24-hour event

Volume in indoor containment structures obviously does not include allowance for precipitation. Refer to [Table 1 in Appendix A](#) for facility-specific secondary containment capacity calculations.

7.0 INSPECTION, TESTING AND RECORDKEEPING

All major operating oil-filled electrical equipment and systems are continuously and remotely monitored from the primary Control Room. Any detected malfunctions are immediately apparent to Control Room Operators. In the event of equipment malfunction, written procedures are in place for Operators to take appropriate initial action in each case, including equipment or system shutdown procedures; calling in facility personnel off-hours to respond; and notifying fire departments and emergency responders if needed.

² <https://hdsc.nws.noaa.gov/hdsc/pfds/>

All oil-filled equipment, systems and 55-gallon drums are visually inspected on a weekly basis during comprehensive facility inspections and monthly during SPCC specific inspections. The transmission pressure and transition vaults are inspected monthly. Any leaks or drips are cleaned, any other potential problems are noted on facility inspection forms, and repairs are scheduled. Structures such as secondary containment sumps and spill control pallets are visually inspected on a weekly basis. Records of all weekly and monthly inspections are kept onsite (see [Appendix D](#)).

8.0 TRAINING

The O&M Manager is responsible for developing the content of the SPCC training program and for ensuring that training in SPCC related activities and policies is provided to appropriate personnel. In addition, the O&M Manager maintains a full understanding of SPCC regulations, emergency response procedures and applicable federal and state regulations through training conducted by qualified trainers. All employees have day-to-day onsite responsibility for discharge prevention and for performing oil-related activities in a manner that minimizes the potential for oil discharge.

Onsite Operations Technicians are properly instructed in the operation and maintenance of equipment and systems to prevent the discharge of oil. In the event of an emergency, personnel are prepared to respond appropriately. All personnel responding to an emergency are trained according to the level of response expected from them.

New or transferred personnel complete an in-house training course ([Appendix E](#)) within six months of their new assignment and receive on-the-job supervision until this course has been completed. Training differs depending on personnel and site-specific spill response requirements. Annual briefings ([Appendix E](#)) updating changes in oil-related equipment or systems, any failures that occurred in the past year, and new precautions that have been implemented are required of all facility personnel having oil-related responsibilities. Other personnel may be periodically briefed on SPCC requirements applicable to their position. Training records are kept and are available from the O&M Manager.

SPCC training and annual briefings include instruction and review of:

- The contents and purpose of this SPCC Plan;
- Proper operation and maintenance of equipment designed to prevent the discharge of oil;
- Applicable pollution control laws, rules, and regulations;
- Inspection procedures and documentation;
- Spill response procedures; and
- Any known spill events, malfunctioning components, and recently developed or implemented precautionary measures.

9.0 DISCHARGE RESPONSE

This section describes the response, cleanup, and notification procedures in the event of an oil discharge to the environment. The uncontrolled release of oil to groundwater, surface water, or land is prohibited by state and federal law. Immediate action must be taken to control, contain, and recover discharged oil.

It is important to note that the designated primary Control Room is staffed 24 hours/day and continuously monitors major equipment and systems at the facility. Specific individuals are designated to be on call 24 hours/day, 365 days/year. In addition, facility personnel are expected to respond to off-hour call-ins in the event of facility emergencies.

9.1 Responsibilities

The O&M Manager or designee has the responsibility to assess the release and implement appropriate response procedures under this Plan. Proper verbal notifications to outside agencies, corporate management and to the emergency response contractors are made immediately in the event of a reportable release. The O&M Manager has the authority to commit the necessary resources to respond to a discharge.

The O&M Manager or designee also has the responsibility to provide oversight and guidance to facility personnel, and/or emergency response contractors in completing appropriate response actions. The O&M Manager or designee also completes the verbal and written notification and reporting procedures required by federal and state law as described in [Appendix B](#).

Facility personnel have the responsibility to be familiar with the contents of this Plan and to respond in accordance with their level of training upon discovery of a release of oil or other hazardous materials.

The primary Control Room Operator has the responsibility to respond to remote facility alarms and other indicators of a potential release quickly and appropriately, and to shut down any equipment or systems to minimize a release and damage to equipment. The Control Room Operator notifies the O&M Manager in the event of an off-hours release or equipment failure and can call in EMS responders if needed.

9.2 Spill Control and Response Equipment

The facility maintains an onsite supply of spill control and cleanup equipment that is intended for the cleanup of incidental releases. Oil spill kits contain a variety of sorbent materials, personal protective equipment, and tools for use in containing releases on land. These kits can be used to control and clean up incidental releases and are located in the Valve Cooling Room and in the garage storage area. Additional supplies of sorbent pads are maintained in the Control Building. [Table 2 in Appendix A](#) provides a listing of spill control equipment.

9.3 Emergency Response Contractors

The Company has written standby emergency response agreements with qualified contractors listed in the [Internal Contacts Table in Appendix B](#) who can provide 24-hour spill containment, control, and cleanup services. These contractors have committed the resources necessary to effectively respond to an oil release, and can be onsite within a reasonable time.

9.4 General Response Procedure

The following steps should be taken for any release of oil or other hazardous materials:

1. Eliminate potential spark sources by appropriate means, including the isolation of energized electrical equipment;
2. If possible and safe to do so, identify and immediately shut down the source of the discharge to stop the flow;
3. If possible and safe to do so, contain the discharge with sorbent materials, sand, barriers, drain blockers or other appropriate material paying special attention to migration routes toward storm drains, wetlands, rivers or adjoining shorelines;
4. Contact the Control Room to notify them of the spill source, and to coordinate shutdown of equipment and systems. The Control Room can also contact the O&M Manager and EMS responders.
5. The O&M Manager will oversee cleanup operations, contact regulatory authorities by telephone and local response organizations if required.
6. Collect, manage and dispose of recovered oil and contaminated debris in accordance with applicable state and federal hazardous or solid waste regulations.

For a discharge that poses a risk to employee and/or public health and safety; or if there is a risk of fire or explosion, the facility must be evacuated in accordance with the Emergency Action Plan available onsite and from the O&M Manager. The local fire department and Local Emergency Planning Commission (LEPC) must be notified if applicable. Refer to the [External Contacts Table in Appendix B](#) for contact numbers of emergency response agencies.

For a discharge that facility personnel are unable to safely control and contain, the on-call spill response contractor must be contacted to provide emergency response services. In addition, the applicable state Haz-Mat team is generally available to assist. This service is usually offered by the state environmental agency when notified of a release. Local fire departments may also be able to assist in release containment and can be contacted if needed.

10.0 DISCHARGE NOTIFICATION AND REPORTING

Notification to regulatory agencies and emergency response organizations is made in accordance with [Appendix B](#) of this Plan and is described below.

10.1 Initial Notification

In the event of any oil release of any size to waters of the U.S. including wetlands, runoff streams and storm drains leading to waters of the U.S., the release must be reported immediately to the National Response Center (NRC) staffed by the U.S. Coast Guard. The NRC will normally notify the Region 2 EPA office and an on-call EPA representative will generally call the facility back to verify the verbal report. Contact phone numbers are found in the [External Contacts Table in Appendix B](#).

The NRC will request the following information during verbal notification:

- Caller's name and call-back telephone number;
- Name and address of the party responsible for the incident;
- Location of the incident including physical address, town and county;
- Name of the water body affected, and other environmental media affected (e.g., soil, air);
- Date and time of the incident;
- Source and cause of the release, and type and quantity of the material;
- Color and size of oil sheen, if present;
- Weather conditions (temperature, precipitation, wind speed) at the incident location;
- Control and containment measures being undertaken;
- Whether or not the release has already been contained and/or cleaned up;
- Any danger or threat posed by the release (e.g., to human health or property);
- Number and type of human injuries, if any, and whether the area was evacuated.
- Names of state and/or local agencies to be contacted (e.g., state environmental agency, local fire department, Local Emergency Planning Commission)

In addition, the appropriate state environmental agency and local Department of Health must be contacted and provided with the same information as detailed in [Appendix B](#).

10.2 Follow up Reporting

Follow up reporting to state and federal agencies depends upon the nature, volume, extent, and environmental media affected by the discharge. In the event of a discharge of more than 1,000 gallons of oil in a single event or discharges of more than 42 gallons of oil in each of two incidents within a 12-month period, a report must be submitted to the EPA Regional Administrator and the state environmental agency within 60 days of the triggering event. A summary of state and federal reporting requirements is included in the [Follow up Reporting section of Appendix B](#).

11.0 HISTORY OF SPILLS

40 CFR 112.4(a) requires facilities that have experienced two or more spill events greater than 42 gallons each within the past twelve months, or one spill of 1,000 gallons at any one time, to include a written description of each spill, corrective action taken, and plans for preventing recurrence. Refer to [Appendix B](#) for reporting information. A spill event is defined as a discharge of oil into or upon the navigable waters of the U.S. or adjoining shorelines in quantities that have been determined to be harmful to the public health and welfare of the United States. Reportable spills under 40 CFR 112, that have occurred at the facility would be summarized in [Table 3 of Appendix A](#).

APPENDIX A – Facility Drawing and Tables

FIGURE 2 – GENERAL LAYOUT – HUDSON TRANSMISSION PROJECT

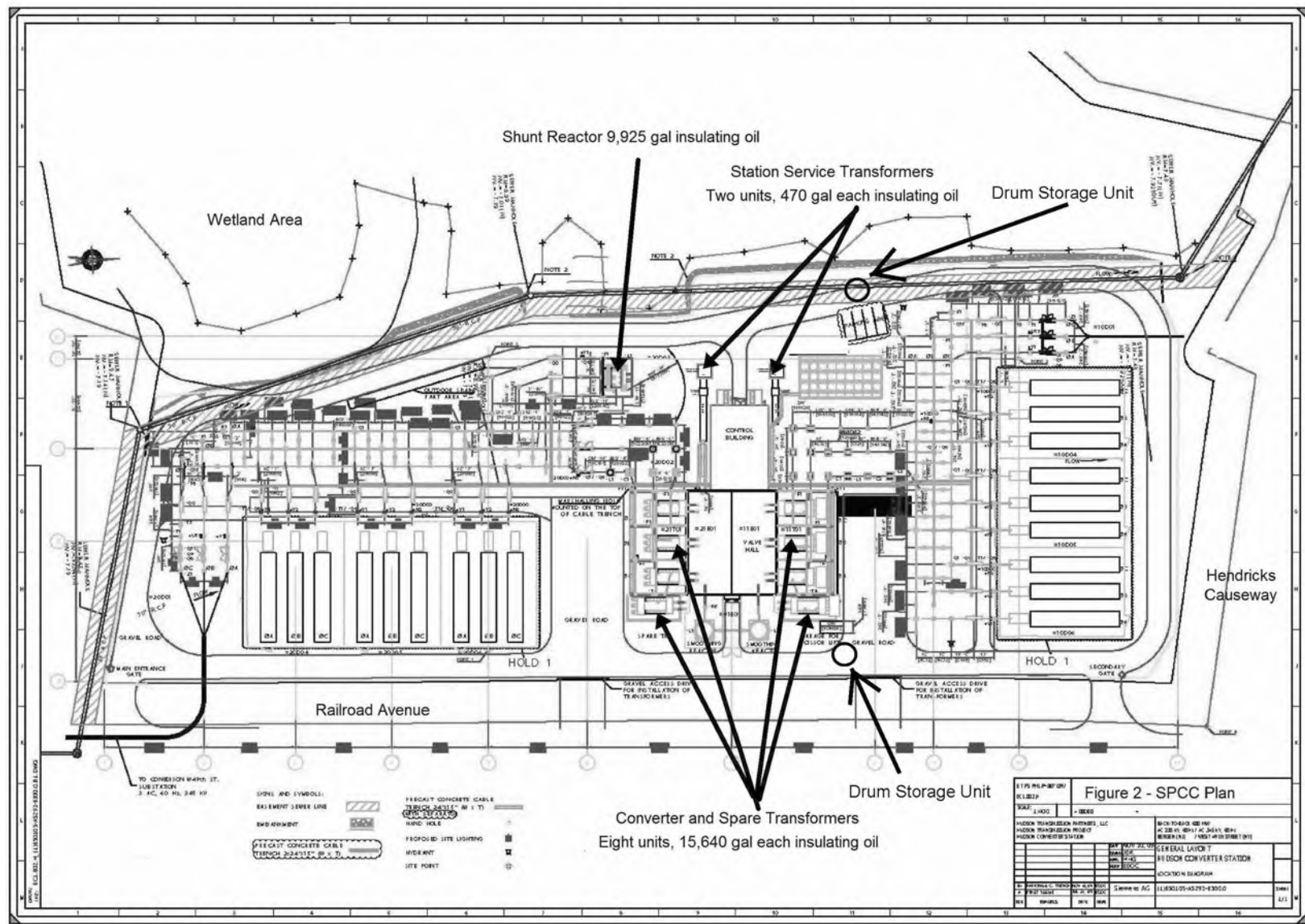


TABLE 1
OIL FILLED CONTAINER SUMMARY

Unit Name	Location	No. of Units	Unit Capacity (gallons)	Oil Type	Equipment Type	Secondary Containment	Additional Protective Measures
Converter Transformers and Spares	Outside Valve Hall	8	~ 15,640	Petroleum Hydrocarbon Oil	Oil-filled Electrical	Concrete containment sumps with a net capacity of over 36,555 gallons	Oil Minder, oil level indicator, oil level alarm, continuous monitoring, weekly inspection
Shunt Reactor Transformer	Switchyard	1	~ 9,925	Petroleum Hydrocarbon Oil	Oil-filled Electrical	Concrete containment sump with 14,480 gallons of net capacity.	Oil Minder, oil level indicator, oil level alarm, continuous monitoring, weekly inspection
Station Service Transformers	Outside Control Building	2	470	Petroleum Hydrocarbon Oil	Oil-filled Electrical	Switchyard would contain	Weekly inspection, loss of power would be indicative of oil loss
55-Gallon Drums	Inside Control Building	2 to 3	55	Transformer Oil, Waste Oil	Portable Bulk Container	Spill Pallets	Weekly inspection
55-Gallon Drums	Outside in Containment Units	5 to 6	55	Transformer Oil, Waste Oil	Portable Bulk Container	Spill Pallets	Weekly inspection

TABLE 2
SPILL RESPONSE AND CONTROL EQUIPMENT

Description	Items	Quantity	Location
Fire Extinguishers, Deluge System	Locations are marked throughout the facility		
Fire, Smoke Alarms	Facility is equipped with alarms		
Telephones	Located throughout the facility		
Spill Cleanup Kits	15-gallon kit	1	Valve Room
	15-gallon kit	6	Garage
Absorbent Pads	Small bale	1	Control Building

TABLE 3
SPILL HISTORY

Date	Description	Quantity Released	File Identifier
Prior to initial operation in 2013	None		
2013 – 02/09/2017	None subject to SPCC reporting		
02/09/2017 – 02/19/2018	None subject to SPCC reporting		
02/19/2018 – 02/15/2023	None subject to SPCC reporting		

APPENDIX B - RELEASE NOTIFICATION AND REPORTING

INITIAL RELEASE NOTIFICATION

In the event of a release of oil or other hazardous material, the appropriate internal and external individuals and agencies listed in the tables on the next page must be contacted immediately, but no later than 2 hours after discovery. Contact information is on page B-2.

OIL RELEASE to water, wetland, storm drain, river:

Any quantity: National Response Center (NRC) and
NJ Department of Environmental Protection (NJ-DEP)

OIL RELEASE to land, outside of containment:

Any quantity: NJ-DEP

RELEASE OF HAZARDOUS MATERIALS or WASTES:

- If quantity > State Reportable Quantity: NJ-DEP, SERC, County Health Dept., and LEPC
- If quantity > Federal Reportable Quantity or release during transport: also notify NRC

All spills must be reported to the NJ Spill Hotline (1-877-927-6337) within 15 minutes of discovery, except spills which meet **all of the following criteria:**

- The spill has not and will not reach the State's water or any land;
- The spill has not gone offsite; and
- The spill is cleaned up within 24 hours of discovery.

WHAT TO REPORT:

- Your name and call-back phone number
- Company name and location/address of release
- Quantity and type of material released
- Source and location of discharge
- Time, duration and medium to which material was released
- Response actions being taken, including clean-up contractor
- Personnel onsite
- Other government agencies that have or will be notified

NOTES:

- Contact spill response contractor for cleanup assistance as needed.
- Document time of each call, contact name, release ID number if provided.
- Take notes of all communications, spill details, and cleanup and control activities.
- EPA Region 2 may call back to verify the federal report of the release. **The EPA Region 2 contact number is (732) 321-6682 if you need to interact with them later.**

EMERGENCY PHONE LISTS

INTERNAL CONTACTS

Facility Control Centers	Duffy Avenue Control Room	(516) 876-2201, 2202
	Sayreville Control Room	(732) 613-7900, 7901
SPCC Coordinator	Manfred Schmidt O&M Manager	(732) 353-8027 cell
Cleanup Contractor	Eric Crespo Safety Kleen	(845) 353-0900

EXTERNAL CONTACTS

FEDERAL	National Response Center (NRC)	(800) 424-8802
	US EPA Region 2 main number	(212) 637-3660
NEW JERSEY	NJ-DEP	(877) 927-6337 (609) 882-2000 (state police if number above is out of service)
	State Emergency Response Commission (NJ-DEP)	(609) 292-6000
	Bergen County Dept of Health, Health and Safety Hotline	(201) 225-7000
	Ridgefield Boro LEPC	(201) 943-5215

- **FOLLOW UP REPORTING**

New Jersey: If reportable, the state requires submittal of an online [Confirmed Discharge Notification](#) within 14 days of a discharge. Instructions are provided in the link and copied on the following pages. See also the [Frequently Asked Questions](#). The facility must also follow site cleanup procedures outlined in this [quick reference guide](#). Webpage with all guidance and forms: <http://www.nj.gov/dep/srp/srra/forms/>.

Federal: Under the SPCC regulations at 40 CFR 112.4, a written report must be submitted to the EPA Regional Administrator and the applicable state environmental agency **in the event of an oil release greater than 1,000 gallons in a single event, or two oil releases greater than 42 gallons each within a 12-month period**. The following information must be submitted within 60 days of the precipitating event:

- Name of the facility
- Name of the owner/operator
- Location of the facility
- Maximum oil storage or handling capacity
- Corrective actions and countermeasures taken, including a description of equipment repairs and replacements.
- A description of the facility including maps, flow diagrams, and topographical maps.
- Cause of the discharge(s) to navigable waters and adjoining shorelines, including a failure analysis of the system and subsystems in which the failure occurred.
- Additional preventative measures taken or planned to minimize the possibility of recurrence.

Mail the report to: Regional Administrator
 USEPA Region 2 - SPCC Program
 290 Broadway
 New York, New York 10007-1866

Mail a copy of the report to: Site Remediation Program
 New Jersey Department of Environmental Protection
 401-05H
 PO Box 420
 Trenton, NJ 08625-0429



New Jersey Department of Environmental Protection Site Remediation Program

ONLINE – Confirmed Discharge Notification (CDN) INSTRUCTIONS

Applicability

Use this online service to submit a Confirmed Discharge Notification to the New Jersey Department of Environmental Protection (NJDEP). The person responsible for conducting the remediation is required to file a Confirmed Discharge Notification within 14 days after a discharge of hazardous substance has been reported to the NJDEP's Action Hotline (1-877-WARNDEP).

Historic Fill Only Sites

If contaminated historic fill is the **only** contaminated Area of Concern (AOC) identified at the site, **do not** use this online service to submit the CDN. Submit the CDN via paper form available at: <https://www.nj.gov/dep/srp/srra/forms/>. Do not call NJDEP's Action Hotline, instead call the Bureau of Case Assignment and Initial Notice (BCAIN) at: (609) 292-2943.

The information provided in the service will be used to create or update the site information in the NJDEP's New Jersey Environmental System Database.

Time Frame

Notification to the NJDEP must occur within 14 calendar days after a discharge of hazardous substance has been reported to the New Jersey Department of Environmental Protection (NJDEP)'s Action Hotline (1-877-WARNDEP).

It may take up to 3 business days for an incident called in to be evaluated. This service cannot be completed until the NJDEP has evaluated the incident and determined it is regulated by the Site Remediation Reform Act (SRRA).

NJDEPOnline Account (one time only)

1. This service will not work with all internet browsers. A current list of compatible browsers is presented in the service when you login.
2. Confirmed Discharge Notification (CDN) Service may be prepared by one person and certified by another only if an existing facility is picked during the Service. If there is no facility (PI) in the system, the person who creates the CDN must complete it and certify it.
3. You must have an NJDEPOnline account to submit forms through NJDEPOnline. If you do not already have an account, go to: <http://www.state.nj.us/dep/online/> for setup instructions.

MyWorkspace Setup

1. If you do have an account, login, from the 'My Workspace' tab, click on 'User Profile'. Make sure to add your current address and email to your user profile, as the Department will reach out to you there if there are issues with services.
2. Account users will need a PIN number to certify. If you do not have an existing PIN, click 'Request Cert PIN' at the top of the page.
3. Click the tab on the Upper left to go to My Workspace, and click 'Configure Services'. Choose 'Confirmed Discharge Notification (CDN)' under Site Remediation, and click 'OK', the Service will be added to My Workspace.
4. If you are filing a CDN, and if the facility already exists in the Department's Database, you will need to add the facility you wish to use to My Facilities\Program Interests before running any services. Click 'Add Facilities', choose 'Site Remediation' in the (Optional) Select NJDEP Program: drop-down, and then type in the program interest (Facility ID) in the Facility ID field, or the Facility name in the Facility name field and click 'Search'. Click the checkbox next to the facility you wish to add to your Facilities, and Click 'Add Selected Facilities'. If you do not know your facility ID, search for it in DataMiner at: <https://www13.state.nj.us/DataMiner/>; choose "Search by Site", then click on the "Advanced" tab.

Before You Begin

Near the end of the online service you will be required to upload a completed "Authorization Form for CDN or GIN Submissions Through NJDEP Online". The form is available at: <http://www.nj.gov/dep/srp/srra/forms>. The form must be printed out, completed and signed by the responsible party, then scanned and turned back into a pdf.

Confirmed Discharge Notification (CDN) Service

Click on 'Confirmed Discharge Notification (CDN)' then on the next page, read the brief instructions and click 'Continue'.

Incident Selection / Incident Details: Enter your communication center number or incident number that was provided by the NJDEP's hotline operator for the reported discharge, then click 'Search'. The incident number can be found on the incident letter from BCAIN. Not all incidents require an LSRP. Only incidents subject to SRRA will be found by the incident search. Additional information about an incident can be found by running the Dataminer report 'Incidents by Communications Center Number', found in:

<https://www13.state.nj.us/DataMiner/Search/SearchByCategory?isExternal=y&getCategory=y&catName=Incidents+and+Complaints>

NOTE: If the communication center number is prior to March 2, 2002, or the number does not display, you must contact BCAIN at (609) 292-2943 prior to proceeding with this service.

If the 'Detailed Information' displayed after clicking the search button is correct, click 'Continue' to proceed. If the information is not correct contact BCAIN at (609) 292-2943 prior to proceeding with this service

CDN Type Selection: If your discharge is from a State or Federally regulated underground storage tank system, choose 'Confirmed Discharge Notification (Discharge from Regulated UST System Only)'. All others choose 'Confirmed Discharge Notification (All other Non-UST Spill Act Discharges)'. To determine which underground storage tanks are federally regulated, please refer the information available at:

http://www.nj.gov/dep/srp/bust/regulated_ust_fact_sheet.pdf Click 'Continue' to proceed.

Facility Selection: The grid displayed on this page contains list of Site Remediation Facilities that have been associated with your profile. Choose one of the two options below:

- **Pick from the List** - Select a facility related to this submission from the list and click 'Continue'. If you don't see the facility you are looking for, it may be because it has not been added to your user profile. Click on the blue "[Click Here](#)" at bottom of the screen to search for the facility and add it to the list.
- **Add a new Facility** – If the facility that is the subject of this submission is new to the Department, click on the checkbox below the list of facilities that says "I do not wish to use a facility currently in my profile" and click continue. (Note: This checkbox will not be available if you chose "Discharge from a Regulated UST System Only" on the previous screen.)

Proceed to the Section that correspondences with the Facility Selection option selected above:

- I. Pick an existing Facility
- II. Add a new Facility

Section I. Pick an Existing Facility

Submission Name: The Submission Name Field will contain information regarding the Submission Type (CDN), the program interest number (facility ID), and name of the facility. Please update the name if it is not current. Add any comments you wish to see associated with this individual service and click 'Continue'.

Note: Upon clicking continue, if there are no existing cases to choose from, the 'Responsible Entity' page will be displayed next instead of the 'Case Selection' page.

Case Selection: The grid displayed on this page contains list of Activities (Cases) that are associated with the facility you selected on the previous page. Select an Activity (Case) only if the Responsible Party is the same, if your client is associated with the Activity, and would like this Discharge to be combined with that Activity, and the existing remedial timeframes will be met. If any of those conditions are not met, do not select an Activity. Instead, click on the checkbox stating 'I do not see a suitable activity listed above'. If an Activity (Case) is not chosen, one will be created automatically.

Responsible Entity Selection: This page will be displayed if you checked "I do not see a suitable activity listed above", or if there were no cases associated with the facility. Select an organization from the list only if all the information displayed matches exactly. Otherwise, click on the checkbox below the grid that says "The lead responsible entity is not displayed in the list shown above". If you click on the checkbox below the grid, you will be given an opportunity to add the responsible entity information later in the service.

Additional Site Information: If you selected a case on the previous page, the Case Name and Location Address will be auto populated and cannot be edited. If the information needs to be changed or the address is incorrect, please contact Bureau of Case Assignment and Initial Notice at (609) 292-2943.

- **Case Name.** If the case name field is not populated, enter the name of the facility where the discharge occurred. If there is no facility, enter the location.
- **Location address.** If the location address is not populated, provide the physical address. Address line 1 must include a street number and road. If the discharge occurred where there is no address, enter a complete location description.
- **Location Description.** If there is no address, provide a detailed location description.
- **Enter Tax Blocks and Lots.** Tax block and lots may be auto populated. If not, enter the tax blocks and lots of the facility where the discharge occurred. Modify or add additional Blocks and Lots, if necessary. If there are no Block/Lots, click, "I certify that a valid block lot combination does not apply for this project"
- **Coordinate Selection.** In the Coordinate Selection, you may change the X and Y coordinates if they are not correct. To do so, click on the "Undo Location" button, click on the map at the center of the site or the center of the facility (Moves the red X mark to a different location) and then click on the "Set Location" button. Click 'Continue' to proceed.

Location Confirmation: Certify the location of the site of the discharge by clicking on the checkbox that says "*I hereby certify that the location of the property for which I am submitting this service is the same as the site location displayed above*" and then click 'Continue'. If the location is not correct, return to the previous screen (Additional Site Information) and change the coordinates to the correction location.

Proceed to Section III.

Section II. Add a new Facility

Submission Name: The submission name field should contain ONLY the Site Name related to the Discharge. Add any comments you wish to see associated with this individual service and click 'Continue'.

Site Information:

- **Case Name.** Enter the name of the facility where the discharge occurred. If there is no facility, enter the location.
- **Location address.** Provide the physical address. Address line 1 must include a street number and road. If the discharge occurred where there is no address, enter a complete location description.
- **Location Description.** If there is no address, provide a detailed location description.
- **Enter coordinates.** Enter the X and Y coordinates of the location of the discharge. To determine the coordinates, click the "Launch NJGeoWeb" button at the bottom of the screen.
- **Enter Tax Blocks and Lots.** Enter tax blocks and lots where the discharge occurred.

Location Confirmation: Certify the location of the site of the discharge by clicking on the checkbox that says "*I hereby certify that the location of the property for which I am submitting this service is the same as the site location displayed on the above map*" and then click 'Continue'. If the location is not correct, return to the previous screen (Site Information) and change the coordinates to the correction location.

Section III.

Contacts: You must enter all contact information for the Property Owner and Responsible Entity. Please note that you may provide additional contact information using the 'ADD Contact' button at the bottom of the page. Add or update contacts as needed. Note that a * indicates a required field. Click 'Add Number' if there is no phone number and add a number with a number type. After all required contact information has been provided, click 'Continue' to proceed.

Confirmed Discharge Notification Details: Indicate if the discharge is related to a release from a federally regulated Underground Storage Tank (UST). To determine which underground storage tanks are federally regulated, please refer the information available at: http://www.nj.gov/dep/srp/bust/regulated_ust_fact_sheet.pdf. If 'Yes' is selected, indicate the source and the cause of the Federal Release by selecting from the available dropdown lists.

Existing Case Types already associated with your selected case are displayed in a grid. Add additional rows as necessary to identify all applicable Case Types (such as regulated UST, Child Care Facility, etc.). A release from a regulated UST requires a Regulated UST Case Type. After all required Confirmed Discharge Notification details have been provided, click 'Continue' to proceed.

Tank Selection: This page will be displayed only if you indicated on the previous page that the discharge is related to a release from a federally regulated UST. This page will display a list of tanks from the Department's UST Registration database that are associated with the Facility that you selected at the beginning of this service. They represent information submitted by the Owner or Operator on a New Jersey Underground Storage Tank Certification Questionnaire. If the UST(s) is/are not listed, the Owner or Operator must submit a New Jersey Underground Storage Tank Certification Questionnaire registering the UST(s) prior to completing this online form. Changing another UST's information to represent the UST not registered is not permitted. Click on the checkbox in 'Select' column for all UST(s) associated with the discharge reported in this submission. 'Piping length (ft)' is a required field, choose "None" if the piping is unknown or not associated with the discharge.

Attachment Upload: Upload a completed "Authorization Form for CDN or GIN Submissions Through NJDEP Online" by clicking the "Browse" button, navigating to the file to be uploaded, choosing it, and clicking open. The file will take a moment to upload. The Browse button will disappear when the file is finished uploading. Click "Continue" button at bottom of screen to proceed.

Certification: You must enter your Certification PIN number, and click Certify. You do not have to be an LSRP to certify an online CDN submission.

Summary: On the Submission Summary page, you will be able to review and print a summary of information entered throughout the service.

Completed Services appear in My Workspace under My Services Submitted section.

A status of "Pending NJDEP Review" will appear if a facility was not picked, a responsible entity was not picked, or a responsible entity contact was added. The NJDEP will review the submission and attempt to match the Facility and Responsible Entity to existing ones in the NJDEP's database. It may take up to 3 business days to complete the process. When completed, a confirmation e-mail will be sent to the individual who certifies the CDN submission.

Please direct inquiries pertaining to Confirmed Discharge Notifications to the Bureau of Case Assignment and Initial Notice at (609) 292-2943. Questions about the online service should be directed to PortalComments@dep.nj.gov.

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APPENDIX C - FIVE-YEAR SPCC PLAN REVIEW AND CERTIFICATION LOG

Date of Review	Certification Statement (indicate the applicable decision below and refer to Section 2.3)	Signature
12/12/17	I have completed review and evaluation of this SPCC Plan on the date listed and <u>will not</u> amend this Plan as a result of my review.	
12/15/22	I have completed review and evaluation of this SPCC Plan on the date listed and <u>will not</u> amend this Plan as a result of my review.	
	I have completed review and evaluation of this SPCC Plan on the date listed and <u>will / will not</u> amend this Plan as a result of my review.	
	I have completed review and evaluation of this SPCC Plan on the date listed and <u>will / will not</u> amend this Plan as a result of my review.	
	I have completed review and evaluation of this SPCC Plan on the date listed and <u>will / will not</u> amend this Plan as a result of my review.	
	I have completed review and evaluation of this SPCC Plan on the date listed and <u>will / will not</u> amend this Plan as a result of my review.	

APPENDIX D - WEEKLY AND MONTHLY SPCC INSPECTION CHECKLISTS

Weekly Inspection Documentation

Maintenance Document

No: HTP-MD-361&365-1W

Revision 1 - 03/2016

Routine control – 1 Week

Performed by (name):		Engineering review completed by (name):	
Signature:		Signature:	
Date Completed:		Date Reviewed:	

Total HTP Man-Hours:		Number of HTP Personnel Required:	
Total Contractor Man-Hours:		Number of Contractor Personnel Required:	

Preparation

Where applicable, please refer to the appropriate Maintenance Procedure that outlines the general job safety requirements, inspection criteria, nominal values, and any other additional pertinent information relating to the execution of this task. By initialing below, the person performing this task acknowledges that they have read and understand the work instruction listed above.

Documents needed for work :	Document #	Initial	Documents needed for work :	Document #	Initial
Work Permit:			Elec. Safety Procedures	N/A	
Work Order (iMaint):			MSDS for hazardous substances	N/A	
HTP-MP-361-1W:	N/A				
HTP-MP-365-1W:					
Special tools required: N/A:					

Bergen Converter Transformer & AC Line Protection

Item #	Equipment Designation	Equipment Description	Description of Inspection	Nominal Value (or range)	Observed Condition (or value)		Complete?
1	10D001+R1 Conv. Transformer Protection Bergen	F301P SIPROTEC 7UT61	Verify RUN Status	Green LED ON	Sat	Unsat	☐
		F301P SIPROTEC 7UT61	Verify No Errors	Red LED OFF	Sat	Unsat	☐
		F301P SIPROTEC 7UT61	(LEDs 1-6) Note any Alarms/Trips	LEDs OFF	Sat	Unsat	☐
		F301P SIPROTEC 7UT61	(LEDs 8-9) Note any Protection in OFF state	LEDs OFF	Sat	Unsat	☐
		F301P SIPROTEC 7UT61	(LED 14) Note any COMMS Fault	LED OFF	Sat	Unsat	☐
2	10D001+R1 Conv. Transformer Protection Bergen	F303P SEL-311L	Verify ENABLED Status	"EN" LED Green	Sat	Unsat	☐
		F303P SEL-311L	Verify No Errors	Trip, Time, COMM, 87, S0/S1 LEDs OFF	Sat	Unsat	☐
		F303P SEL-311L	Verify No 87CH Fail	LED OFF	Sat	Unsat	☐
3	10D001+R2 Conv. Transformer Protection Bergen	F302P SIPROTEC 7UT61	Verify RUN Status	Green LED ON	Sat	Unsat	☐
		F302P SIPROTEC 7UT61	Verify No Errors	Red LED OFF	Sat	Unsat	☐
		F302P SIPROTEC 7UT61	(LEDs 1-6) Note any Alarms/Trips	LEDs OFF	Sat	Unsat	☐
		F302P SIPROTEC 7UT61	(LEDs 8-9) Note any Protection in OFF state	LEDs OFF	Sat	Unsat	☐
		F302P SIPROTEC 7UT61	(LED 14) Note any COMMS Fault	LED OFF	Sat	Unsat	☐
4	10D001+R2 Conv. Transformer Protection Bergen	F304P GE L90	Verify "IN SERVICE" Status	"IN SERVICE" LED Green	Sat	Unsat	☐
		F304P GE L90	Verify No Errors	Trouble, Test Mode, Trip, Alarm, Pickup OFF	Sat	Unsat	☐
		F304P GE L90	Verify No Active Targets	Display Reads "No Active Targets"	Sat	Unsat	☐

Maintenance Document

No: HTP-MP-361&365-1W

Revision 1 - 03/2016

W49th Street Converter Transformer & AC Line Protection

Item #	Equipment Designation	Equipment Description	Description of Inspection	Nominal Value (or range)	Observed Condition (or value)		Complete?
1	20D001+R1 Conv. Transformer Protection W49th St.	F301P SIPROTEC 7UT61	Verify RUN Status	Green LED ON	Sat	Unsat	☐
		F301P SIPROTEC 7UT61	Verify No Errors	Red LED OFF	Sat	Unsat	☐
		F301P SIPROTEC 7UT61	(LEDs 1-6) Note any Alarms/Trips	LEDs OFF	Sat	Unsat	☐
		F301P SIPROTEC 7UT61	(LEDs 8-9) Note any Protection in OFF state	LEDs OFF	Sat	Unsat	☐
		F301P SIPROTEC 7UT61	(LED 14) Note any COMMS Fault	LED OFF	Sat	Unsat	☐
2	20D001+R1 Conv. Transformer Protection W49th St.	F303P Alstom MICOM	Verify "Healthy" Status	"EN" LED Green	Sat	Unsat	☐
		F303P Alstom MICOM	Verify no other Status	Trip, Alarm, Out of Service LEDs OFF	Sat	Unsat	☐
		F303P Alstom MICOM	Verify No Fault	Trip, 87, 50, BFI, DTT Send, DTT Rec, COM, Loop Back LEDs OFF	Sat	Unsat	☐
3	20D001+R2 Conv. Transformer Protection W49th St.	F302P SIPROTEC 7UT61	Verify RUN Status	Green LED ON	Sat	Unsat	☐
		F302P SIPROTEC 7UT61	Verify No Errors	Red LED OFF	Sat	Unsat	☐
		F302P SIPROTEC 7UT61	(LEDs 1-6) Note any Alarms/Trips	LEDs OFF	Sat	Unsat	☐
		F302P SIPROTEC 7UT61	(LEDs 8-9) Note any Protection in OFF state	LEDs OFF	Sat	Unsat	☐
		F302P SIPROTEC 7UT61	(LED 14) Note any COMMS Fault	LED OFF	Sat	Unsat	☐
4	20D001+R2 Conv. Transformer Protection W49th St.	F304P SEL-411L	Verify "ENABLED" Status	"ENABLED" LED Green	Sat	Unsat	☐
		F304P SEL-411L	Verify No Errors	Trip, 50/51, BF1, BF2, 87LP, 87LQ, DTT Send, DTT Rec, CH1, CH2 COMM LEDs OFF	Sat	Unsat	☐
		F304P SEL-411L	Verify no other Status	Test Mode, Dev Flt, IRIG ERR LEDs OFF	Sat	Unsat	☐
		F304P SEL-411L	Verify No Active Targets	Display Reads "No Active Targets"	Sat	Unsat	☐

[illegible]

SPCC Monthly Inspection Documentation

Maintenance Document

No: HTP-MD-SPCC-1M

Revision 1 - 03/2017

Routine control – 1 Month

Performed by (name):		Engineering review completed by (name):	
Signature:		Signature:	
Date Completed:		Date Reviewed:	

Total HTP Man-Hours:		Number of HTP Personnel Required:	
Total Contractor Man-Hours:		Number of Contractor Personnel Required:	

Preparation

Where applicable, please refer to the appropriate Maintenance Procedure that outlines the general job safety requirements, inspection criteria, nominal values, and any other additional pertinent information relating to the execution of this task. By initialing below, the person performing this task acknowledges that they have read and understand the work instruction listed above.

Documents needed for work :	Document #	Initial	Documents needed for work :	Document #	Initial
Work Permit:			Elec. Safety Procedures	N/A	
Work Order (iMaint):			MSDS for hazardous substances	N/A	
HTP-MP-SPCC-1M:	N/A				
Special tools required: N/A:					

Maintenance Document

No: HTP-MD-SPCC-1W

Revision 1 - 02/2017

Item #	Equipment Designation	Equipment Description	Description of Inspection	Nominal Value (or range)	Observed condition (or value)		Complete?
1	11T01-A	Main Tank	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Coolers	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Radiators	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Piping Connections	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
2	11T01-B	Main Tank	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Coolers	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Radiators	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Piping Connections	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
3	11T01-C	Main Tank	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Coolers	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Radiators	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Piping Connections	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
4	11T01	Oil Minder	Verify that oil minder has not tripped is offline.	Energized; no alarms	Sat	Unsat	☐
		Containment Vault	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
5	Outdoor Storage	Garage area	Verify Secondary Containment is free of leaks.	None visible	Sat	Unsat	☐
6	21T01-A	Main Tank	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Coolers	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Radiators	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Piping Connections	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
7	21T01-B	Main Tank	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Coolers	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Radiators	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Piping Connections	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
8	21T01-C	Main Tank	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐

Maintenance Document

No: HTP-MD-SPCC-1W

Revision 1 - 02/2017

Item #	Equipment Designation	Equipment Description	Description of Inspection	Nominal Value (or range)	Observed Condition (or value)		Complete?
		Coolers	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Radiators	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Piping Connections	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
9	21T01	Oil Minder	Verify that oil minder has not tripped or de-energized.	Energized; no alarms	Sat	Unsat	☐
		Containment Vault	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
10	20D03-Shunt Reactor	Main Tank	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Radiators	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Piping Connections	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
		Containment Vault	Inspect for signs of oil leaks or debris	None visible	Sat	Unsat	☐
11	20D03	Oil Minder	Verify that oil minder has not tripped or de-energized.	Energized; no alarms	Sat	Unsat	☐
12	Indoor Storage	Valve Cooling Room	Verify Secondary Containment is free of leaks.	None visible	Sat	Unsat	☐
13	Outdoor Storage	Concrete Pad area	Verify Secondary Containment is free of leaks.	None visible	Sat	Unsat	☐

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

APPENDIX E - SPCC ANNUAL BRIEFING FORM AND SPCC TRAINING SLIDES

Initial and Annual Review of SPCC Plan

DISCHARGE PREVENTION ANNUAL BRIEFING / TRAINING RECORD

Location: _____ Date: _____

Briefing Conducted By: _____

The following items were discussed at the briefing (check items discussed, and refer to SPCC training slide presentation on the following pages):

- _____ SPCC Plan contents
- _____ Applicable pollution control laws, rules, and regulations
- _____ Spill events or failures at this or other facilities
- _____ Operation, maintenance, and inspection of equipment to prevent spills
- _____ Spill response and notification procedures
- _____ Other _____

Attendees:

Name	Signature

The Discharge Prevention Briefing form should be kept with the SPCC Plan for 3 years.



OIL SPILL PREVENTION	
Program:	Spill Prevention, Control, and Countermeasure (SPCC)
Regulations:	Environmental Protection Agency – 40 CFR 112
Applicability:	Facilities with more than 1,320 gallons of aboveground storage <u>capacity</u> in tanks or containers of 55 gallons or more, or 42,000 gallons completely buried.
Requirements:	A written plan, spill prevention equipment and procedures, training, spill preparedness, control and response systems/procedures.

SPCC OVERVIEW

Why is an SPCC plan required?

History of Damaging Spills:

- Cuyahoga River Fires -1952, 1969, and numerous earlier ones.
- Ashland, PA (1988) - 4 million gallons of diesel from tank into river.
- Exxon Valdez (1989) - at least 11 million gallons of crude into bay.
- Deep Water Horizon (2010) – the largest oil spill in US waters, 210 million gallons
- Thousands of other large spills

One pint of oil can:

- Create a one-acre sheen on water.
- Contaminate 250,000 gallons of groundwater.



SPCC CONDITIONS

When is an SPCC plan required?

- When oil in containers of 55 gallons or more (individual capacitors are excluded) are stored in places that could potentially harm waters and adjoining shorelines, or areas leading to them - streams (perennial or intermittent), ponds, swales, stormwater or sanitary sewers, wetlands, mudflats, sandflats, or tile drains.
- Includes oil of any type and in any form:
 - Petroleum-based oils (e.g., gasoline, diesel, heating oil)
 - Non-petroleum (e.g., vegetable, mineral, “Bio-based” oils)
 - Used oil
 - Includes cooking oils, fish oils, grease, oily wastes, and sludge
- **At Hudson Transmission Project: oil in transformers and drums (both new and used oils).**

SPCC PLAN

An SPCC plan is a written plan that describes:

- Locations, types and quantities of oils stored at the site.
- Preventive structures and measures.
- Predicted amount and direction of spills.
- Steps taken to ensure that spills do not occur to water.
- Steps that would be taken by staff if there was a spill or leak from a tank or container.
- Spill reporting requirements



SPCC REQUIREMENTS

- Secondary containment around storage tanks and containers
- Spill control equipment
- Emergency planning
- Documented inspections and drainage of containment
- Recordkeeping
- Staff training
- Amendment of the plan within 6 months of any facility changes
- 5-year re-certification by a Professional Engineer



SPILL RESPONSE

- Active Response for ***Incidental Spills*** of Oil or other materials
versus
- Defensive and/or Professional Response Assistance for ***Non-Incidental Spills***
(contact your on-call contractor for assistance)



SPILL RESPONSE

- ✓ Remember safety first - yours and others
- ✓ Evaluate the scene from a distance
 - ✓ What is the material, its hazards, where it is spreading, weather conditions, who and what is nearby?
- ✓ Cordon area off and keep people away
- ✓ Make internal and external notifications as needed
- ✓ Only then, determine if you can respond defensively (incidental vs. non-incidental, your ability, training, PPE, spill control equipment, special hazards)

SPILL RESPONSE EQUIPMENT



Use appropriate kit and materials for the type of chemical - oil vs. acid

INCIDENTAL SPILL RESPONSE



Use protective gear and surround the spill



Soak it up with kitty litter or pads



Clean it up



Dispose of Wastes properly

SPILL CONTROL CONSIDERATIONS

- ✓ Clean up all small spills immediately.
- ✓ Keep spill kits handy and full.
- ✓ Post emergency notification procedures near chemicals and telephones.
- ✓ Use drip pads or pans where oil or other chemicals are dispensed or likely to be splashed or spilled.
- ✓ If drains are in proximity to chemicals use drain covers or other barriers.
- ✓ Conduct weekly inspections and correct deficiencies promptly.
- ✓ Make sure used sorbents are disposed of properly.

REPORTING REQUIREMENTS

WHAT IS A REPORTABLE SPILL?

In New Jersey: Any release to water, wetland, swale, storm drain, detention pond, river, or municipal sewer or a release to land must be reported within 15 minutes, UNLESS:

1. The facility has an SPCC Plan (yes!);
2. The spill has not and will not reach water or any land (e.g., is contained);
3. The spill has not gone offsite; and
4. The spill is cleaned up within 24 hours of discovery.

It doesn't matter how large the spill is - if it meets the criteria above it is not reportable in New Jersey.

REPORTING REQUIREMENTS

WHO AND WHEN TO CALL IN CASE OF A REPORTABLE SPILL?

Release to water, wetland, swale, storm drain, detention pond, river, or municipal sewer, contact immediately:

Federal National Response Center: (800) 424-8802

And the state environmental agency:

NJ-DEP (within 15 minutes): (877) 927-6337

For a release to land, contact only the state environmental agency

See Appendix B of the SPCC Plan for details on initial and follow up reporting, and remediation requirements

WEEKLY SPCC INSPECTIONS

- ✓ **Prevention:** To ensure that all equipment, systems, and containment structures are operable and effective to contain a release
- ✓ **Early Warning:** To keep small problems from becoming bigger problems later (assumes corrections are made quickly)
- ✓ **Mitigation:** To minimize the risk of harm from a release to human health or the environment

WEEKLY SPCC INSPECTIONS (APPENDIX D OF THE SPCC PLAN)

Equipment/Unit	Inspection Item	Result (Yes, No)	Corrective Actions Needed?	Corrective Action Completed Date
Converter Transformer A	Drips or leaks evident?			
	Cracks or breaks in containment structure?			
	Silt or sediment buildup in sump pit?			
Converter Transformer B	Drips or leaks evident?			
	Cracks or breaks in containment structure?			
	Silt or sediment buildup in sump pit?			
Converter Transformer C	Drips or leaks evident?			
	Cracks or breaks in containment structure?			
	Silt or sediment buildup in sump pit?			
Spent Converter Transformer	Drips or leaks evident?			
	Cracks or breaks in containment structure?			
	Silt or sediment buildup in sump pit?			
Short Breaker Transformer	Drips or leaks evident?			
	Cracks or breaks in containment structure?			
	Silt or sediment buildup in sump pit?			
Converter Transformers Oil/Water Separator	Control panel problems? (burnt out bulbs, non-functioning alarms, etc)?			
	Pumps not functioning?			
	Silt or sediment buildup?			
Station Service Transformers	Drips or leaks evident?			
	Cracks or breaks in containment structure?			
	Silt or sediment buildup in sump pit?			
Station Service Transformers Oil/Water Separator	Control panel problems? (burnt out bulbs, non-functioning alarms, etc)?			
	Pumps not functioning?			
	Silt or sediment buildup?			
Elevator Tank	Drips or leaks evident?			
55-Gallon Drums	Drum bulging or rust evident?			
	Drips or leaks evident?			
	Sediment or precipitation in containment pallet?			
Detention Basins	Sediment buildup in inlet pipe?			
	Sediment buildup in outlet pipe?			
	Excess vegetation in basin or at outlet?			
Spill Kits	All spill kits are full, have proper components, and up to date?			
	Sufficient quantities of other spill equipment (extra pads)?			

WEEKLY SPCC INSPECTIONS (APPENDIX D OF THE SPCC PLAN)

Equipment/Unit	Inspection Item	Result (Yes, No)	Corrective Actions Needed?	Corrective Action Completed Date
Converter Transformers Oil/Water Separator	Control panel problems? (burnt out bulbs, non-functioning alarms, etc)?			
	Pumps not functioning?			
	Silt or sediment buildup?			
Station Service Transformers	Drips or leaks evident?			
	Cracks or breaks in containment structure?			
	Silt or sediment buildup in sump pit?			
Station Service Transformers Oil/Water Separator	Control panel problems? (burnt out bulbs, non-functioning alarms, etc)?			
	Pumps not functioning?			
	Silt or sediment buildup?			
Elevator Tank	Drips or leaks evident?			
55-Gallon Drums	Drum bulging or rust evident?			
	Drips or leaks evident?			
	Sediment or precipitation in containment pallet?			
Detention Basins	Sediment buildup in inlet pipe?			
	Sediment buildup in outlet pipe?			
	Excess vegetation in basin or at outlet?			
Spill Kits	All spill kits are full, have proper components, and up to date?			
	Sufficient quantities of other spill equipment (extra pads)?			

SUMMARY

- ✓ **Review the SPCC Plan**
- ✓ **Ask questions about the plan and requirements**
- ✓ **Know when to report a release and to whom**
- ✓ **Conduct weekly inspections**
- ✓ **Correct deficiencies promptly**
- ✓ **Stay safe when responding to a release**
- ✓ **Call in the professionals for a large clean up and remediation – see Appendix B of the SPCC plan for remediation requirements.**

Attachment 2. Sediment Sampling and Analysis Plan (SAP) and USACE Sediment Determination Memo (SDM)

**Cascade Renewable Transmission Project
Columbia River Miles 105 to 190,
Oregon and Washington**

**Sediment Sampling and Analysis Plan
"CRTS23-G2"
January 2024**

Prepared by:

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On behalf of:

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Portland, OR 97204**

Submitted to:

**U.S. Army Corps of Engineers Portland District
Sediment Quality Team**

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MAPS

Map 1 – Pre-Dredge Locations

Map 2 – Sample Locations

ATTACHMENTS

Attachment A-1. Site History Information for the Cascade Renewable Transmission Project – Oregon

Attachment A-2. Site History Information for the Cascade Renewable Transmission Project – Washington

Attachment B: QA2 DATA REQUIREMENTS Chemical Variables; Organic Compounds and Metals

This SAP was prepared in accordance with the Regional Sediment Evaluation Team's (RSET's) May 2018 *Sediment Evaluation Framework for the Pacific Northwest (SEF)*.

ACRONYMS AND ABBREVIATIONS

BPA	Bonneville Power Administration
CFR	Code of Federal Regulations
COC	Chemicals of Concern
Corps	US Army Corps of Engineers – Portland District
CRD	Columbia River Datum
CRM	Columbia River Mile
CRT	Cascade Renewable Transmission
CSM	Conceptual Site Model
CY	Cubic Yard
DMMU	Dredged Material Management Unit
ECSI	Environmental Cleanup Site Information
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FNC	Federal Navigation Channel
HDD	Horizontal Direction Drill
LOD	Limit of Detection
MDL	Method Detection Limit
MRL	Method Reporting Limit
NAD 83	North American Datum 1983
NFA	No Further Action
ODEQ	Oregon Department of Environmental Quality
OSU	Oregon Slough Upstream
PCB	Polychlorinated Biphenyl
PDS	Post Dredge Surface
PSEP	Puget Sound Estuary Program
PSET	Portland Sediment Evaluation Team
QA/QC	quality assurance and quality control
RM	River Mile
RSET	Northwest Regional Sediment Evaluation Team
RPD	Relative Percent Difference
SAP	Sampling and Analysis Plan
SDM	Suitability Memorandum
SEF	Sediment Evaluation Framework for the Pacific Northwest
SL	Screening Level
TPH	Total Petroleum Hydrocarbons
USACE	U.S. Army Corps of Engineers
VTD	Vancouver to Dalles
WSDOE	Washington State Department of Ecology

1.0 PROJECT DESCRIPTION, SITE HISTORY AND ASSESSMENT

1.1 PROJECT LOCATION AND DESCRIPTION

Cascade Renewable Transmission, LLC (Applicant) is in the planning and permitting stages of evaluating an underground transmission line beneath the bed of the Columbia and Willamette Rivers, referred to as the Cascade Renewable Transmission (CRT) project. The proposed Project would address the need for long-term available transfer capacity across the Cascade Range and would help Washington and Oregon meet renewable energy goals associated with climate policies while maintaining electric transmission system reliability.

This sediment sampling and analysis plan (SAP) for the CRT Project was prepared in accordance with the May 2018 Sediment Evaluation Framework for the Pacific Northwest (SEF). CRT, LLC is seeking the interagency Portland Sediment Evaluation Team's (PSET's) concurrence on this SAP.

The CRT Project is a high-voltage direct current (HVDC) 1,100-megawatt (MW) electric transmission facility interconnecting the existing Bonneville Power Administration (BPA) Big Eddy 500-kilovolt (kV) AC substation located in The Dalles, Oregon (Eastern Interconnection), and the existing Portland General Electric (PGE) Harborton substation in Portland, Oregon (Western Interconnection).

The 1,100-MW HVDC project would follow an approximate 100-mile west-east route, which includes an 80-mile segment buried under the bed of the Columbia River (Figure 1.1).

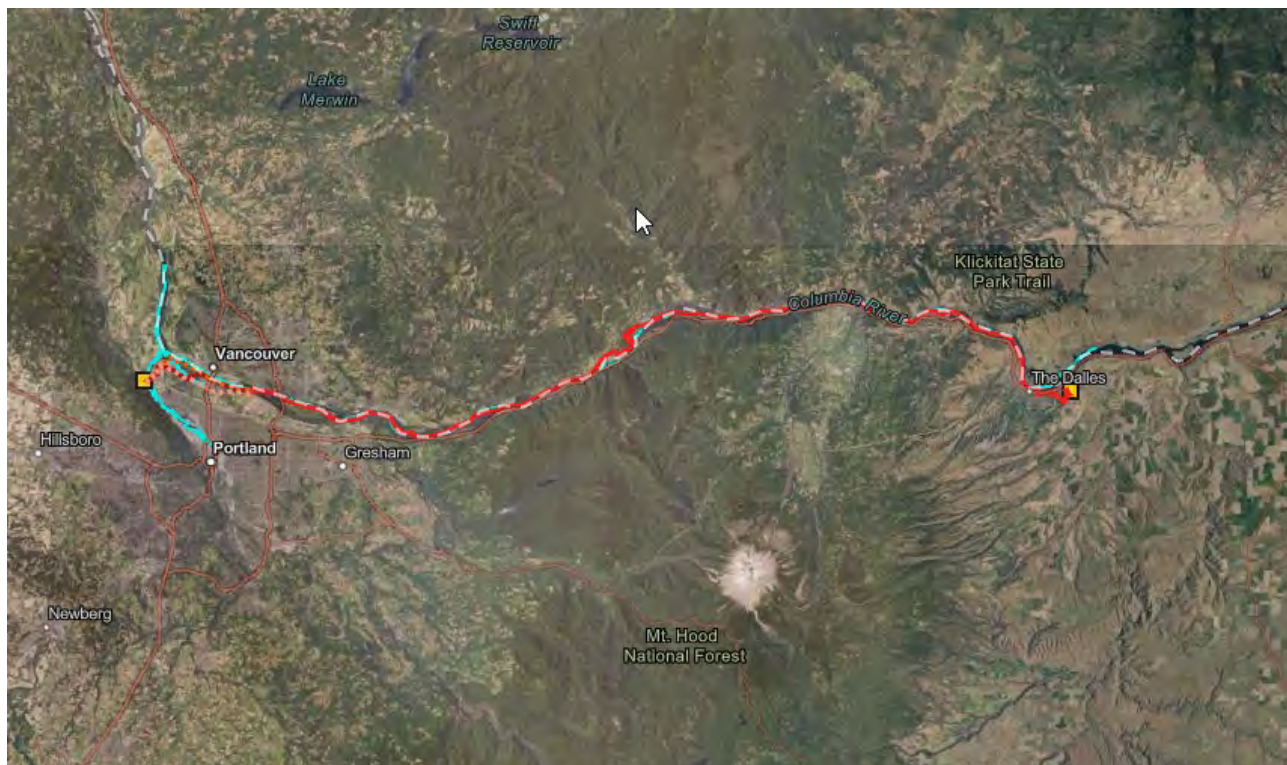


Figure 1.1 General Project Location

The proposed project is comprised of the following major elements:

- Installation of approximately 100 linear miles of below-grade cables and associated communications lines along and within the Columbia River between converter substations between The Dalles and Portland, Oregon. Approximately 80 linear miles would be installed within the Columbia River bed.
- Two Converter Stations, each to be located near the respective interconnection points, which are the existing substations at Big Eddy and Portland. These converter stations would include conventional-design converter transformers and protective circuit breakers. The converter stations would be connected to the substations with short lengths of either overhead or buried high-voltage alternating currents transmission lines (HVAC). The converter stations would be approximately 4–5 acres, graveled and fenced, with minimal parking and appropriate site-specific drainage.
- Land cables would be installed in conduits buried underground. Directional drilling would be used to bring the in-river cables to land near The Dalles, around Bonneville Dam, and near Hayden Island.
- Directional drilling would be used to avoid disturbing shoreline/wetland/waterways (e.g., Columbia Slough) and Willamette River.
- The preliminary schedule estimates project completion in 2027, including engineering, procurement, supply installation, and commissioning of the cable system.

1.1.1 Route Description

The route includes alternative alignments where the cable transitions from submerged to terrestrial. The downstream cable route enters the Columbia River at Hayden Island near Statute Mile (St M) 105.5. The route would continue, generally following the path of the Columbia River, exiting the river near St M 143.5 to pass the Bonneville Lock and Dam and, reentering near St M 150, and continuing to follow the Columbia River until near St M 190 when the cable would exit the river and enter land to connect to the Big Eddy Substation in The Dalles, Oregon.

1.1.2 Construction Methods

The proposed project includes the installation of below-grade cables and associated communications lines along and within the Columbia River between converter substations in Portland, Oregon, and The Dalles, Oregon. The majority of the cables would be installed within the Columbia River, with specific segments installed on land near the substations and around the Bonneville Dam, where water-to-land transitions would be required to install the cables.

1.1.2.1 In-River Cable Installation

The HVDC transmission cable system would include a two-cable bundle currently envisioned to operate at 320 kV and associated fiber optics line(s). In-river, this cable bundle would include 2, 6-inch cables and a fiber optic cable (approximately 2 inches); wrapped together as a 14-inch total diameter.

The 6-inch cables are of compacted circular design, constructed from annealed copper wires and filled with a water-blocking material to limit water propagation in case of cable severance. The conductors would have a nominal cross-sectional area of 3,945 kcmil (2,000 square

millimeters) and meet the requirements of the applicable electrical industry codes and standards. The cables would include additional layers comprising a robust insulation system and “armoring” outside of the conductors. The armoring includes the bedding, the armor wires, and the serving application in one common process as follows:

- Two layers of polyester tape are applied over the inner jacket as bedding for the armor wires.
- One layer of galvanized steel armor wires is applied over this bedding.
- Application of bitumen is provided over the armor layer as further anti-corrosion protection and to aid the adhesion of the cable serving.
- A double layer of polypropylene strings is applied over the armor as cable, serving to provide a degree of abrasion protection and to reduce cable/skid friction during installation. The polypropylene serving is applied with a black and yellow pattern in order to give high visibility to the cable and enable monitoring of cable horizontal movement by remotely operated vehicle cameras.

Table 1.1 is an overview of the construction methods for the in-river portion of the proposed project. Note that construction methods are highly dependent on the location, construction timing, technology, and project constraints.

Table 1.1 In-River Cable Installation Methods

Cable Installation Method	Method limitations	Conditions of Burial Depth	Predicted Location of Use
Jet plow	Can be used in 100 ft of total water depth or less	Burial depth below mudline is less than 15 feet	In River between The Dalles and Hayden Island
Pre-Dredge (Mechanical Clamshell)	None	Burial depth below mudline is greater than 15 feet	Columbia River channel crossing near St M 111.6
Concrete mattress	None	Shallow or no substrate, where utility crossings require shallow installation	• Upstream of Bonneville Dam • Areas where burial depth is limited.

1.1.2.1.1 Jet Plow

Downstream of Bonneville Dam, the in-river cable bundle would be installed using conventional jet plow technology of the type commonly used for underwater installations. With this method, the cables are fed from a ship or barge into the blade, or “stinger,” of the jet plow, which is towed by the vessel. High-pressure water jets in the stinger fluidize the river bottom sediment, creating a narrow (approximately 18 inches wide) trench for the cable bundle and fiber lines. As the plow moves forward, the cable bundle settles into the trench at a maximum depth of approximately 15’ below the sediment surface, where the fluidized sediment settles back over the bundle. In-water cable splicing will be made using “Click-and-Fit” type joints that will not increase the installation footprint of the cable. Based on an average placement depth of 15’ below the existing mudline, this process will fluidize approximately 4,400 CY of sediment per mile, or approximately 352,000 CY along the entire 80-mile alignment length. Refer to Figure

1.2 for a schematic depicting the general concept of the jet plow, vessel, and cable configuration during installation.

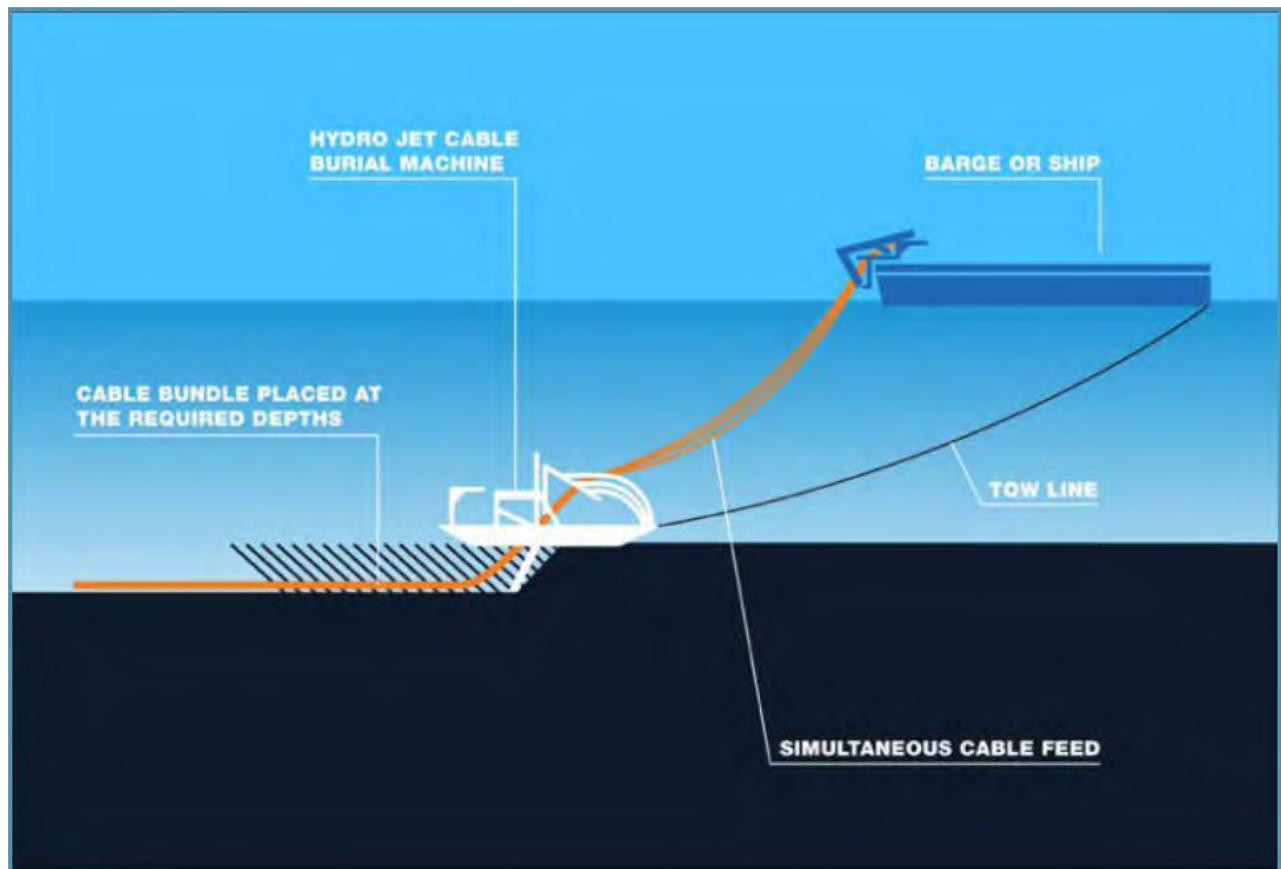


Figure 1.2 Typical Cable Installation by Jet Plow

The target depth of the cable installation is currently top of cable approximately 10 feet below the mudline when the route is not within the limits of the navigation channel and top of cable 7 feet below the navigation channel depth (authorized depth of 27' + 5 feet advance maintenance + 2 feet safety) within the navigation channel limits (i.e., -34'). Note that this project is referenced to two different datums along the length of the project. Downstream of the Bonneville Dam, the project is referenced to the Columbia River Datum (CRD). Upstream of the Bonneville Dam, the reference datum is Bonneville pool elevation, which is defined as +73.3 ft above NAVD88. Subsurface conditions, water depth, existing utilities/obstacles, and other conditions may require the burial depth to be adjusted at specific locations along the route. The jet plow stinger is controlled remotely from the vessel and can be adjusted at these locations to reach the precise burial depth required. The pressure of the water jets can also be controlled remotely to minimize the dispersal of sediments outside of the trench and address site-specific conditions.

There are no defined lateral tolerances at this time. For permitting/regulatory discussions, +/- 25

feet will capture expected tolerances. In other words, CRT does not expect the alignment to vary more than 25' either way from the published alignment. Any major deviation from what is shown will require consultation with a variety of stakeholders/regulators.

The cable route will not be adjusted laterally to avoid utility crossings or challenging substrate (e.g., rock). Instead, the vertical location of the cable will be adjusted to avoid the obstacle. Cable depths of less than 5 feet will require some form of cable protection, which is currently proposed to be concrete armor mats. In some cases, it is expected that the cable will be placed directly on the river bottom (0 depth) to avoid obstacles.

Known utility crossings are shown on the sampling maps. These are shown as large polygons. A more detailed desktop utility locate will be performed at a later date to support permitting efforts. Prior to construction, a full investigation that identifies the exact location of known and unknown utilities will be performed by the client. As noted above, in locations where there are utility crossings or other obstacles, the cable will not be realigned laterally. Instead, the cable will be adjusted vertically to a shallower depth or placed on the river bottom. Cable lengths with a depth of less than 5 feet will have cable protection.

The jet plow is planned to be deployed and operated from a barge for greater maneuverability and flexibility to operate within the river along the proposed route. It is understood that the planned barge can operate normally in water depths ranging between 6 and 100 feet deep. Where the route must cross the navigation channel, the crossing angle would be configured as perpendicular to the channel as practical to minimize cable length within the channel and exposure to potential impacts.

1.1.2.1.2 Dredging

Although the remotely controlled jet plow stinger can be adjusted to reach most required burial depths, one area has been identified where pre-dredging (e.g., via mechanical clam shell) will be required to reach the required depths for federal navigation channel maintenance (Map 1).

The area will require approximately 130 cubic yards (CY) of material to be dredged, including trench and slide-slopes. Due to the low volume of material to be dredged, the dredge material will be side-cast outside the Federal Navigation Channel near the dredging site if the material is deemed suitable for in-water placement. The side casted material will be placed with a maximum thickness of one foot at the placement area shown on Map 1.

1.1.2.1.3 Concrete Mattress

Additional in-river techniques may be required as site-specific conditions warrant. For example, if the required depth is not achievable (shallow bedrock, for instance), the in-river cable may have to be laid on the bottom and additional backfill material or concrete mattress placed on top of the cable bundle to achieve sufficient protection and prevent future conflicts (Figure 1.3). Construction considerations and environmental constraints for the in-river cable installation would impact construction technique/methodologies and would be addressed as project design

progresses. The use of these additional in-river techniques is expected to occur upstream of Bonneville Dam.

Concrete mattress will be used along portions of the cable alignment where the depth of the cable is less than 5 feet. This will likely occur at some of the known utility crossings (shown on the map). Prior to construction, a detailed substrate investigation will be performed to obtain exact locations of known and unknown utilities and identify potential obstructions/obstacles like hard substrate. Areas such as these that require adjusting the vertical depth of the cable (less than 5 feet below the sediment surface) will be protected with concrete mattress. Unfortunately, all locations of concrete mattress cable protection are not known at this time, as these will be identified just prior to construction.

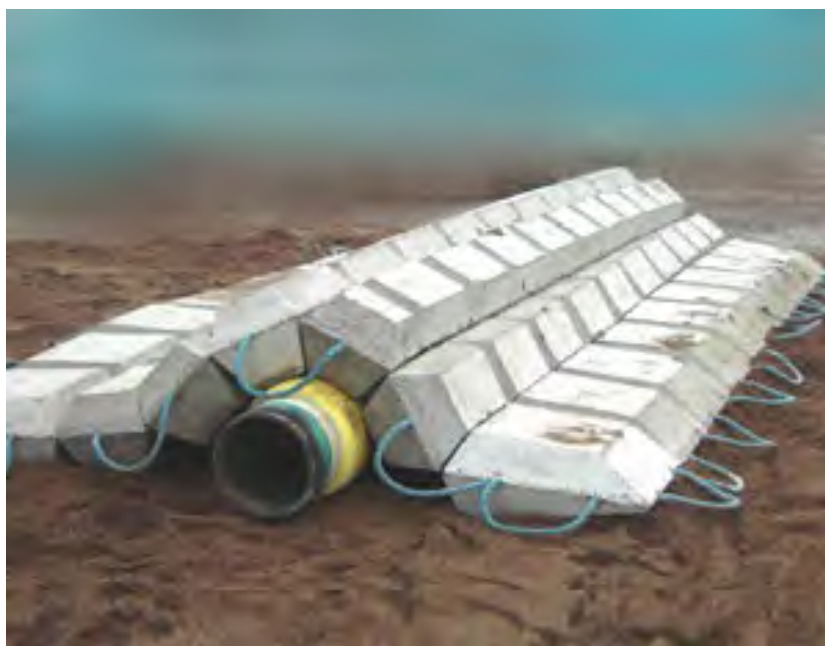


Figure 1.3 Typical Cable Installation by Concrete Mattress

1.1.2.1.4 Additional In-River Techniques

The in-river cable installation may be installed in multiple segments that are spliced together in order to accommodate timing requests for fishing, recreation, or navigation. Contingent on such factors as time-of-year and in-water work restrictions, two separate cable installation campaigns for the in-river cable are planned, including splicing and water-to-land transitions near Hayden Island and at Bonneville Dam and The Dalles. Diver crews and support equipment mounted on vessels would be used as required to make the splices and install in-river transition vaults.

1.1.2.2 Land-to-Water/Water-to-Land Shore Approaches

The land-to-water or water-to-land transitions (commonly referred to as “shore approaches”) are currently planned to be installed by Horizontal Direction Drilling (HDD) construction methods. HDD is a trenchless construction method for installing pipelines using a surface-mounted drilling rig with minimal impact on the surrounding area. HDD construction is commonly used to install

pipelines when conventional trenched methods are not feasible when site conditions warrant minimal surface impacts, when accessibility challenges are present at a crossing location, or when required by landowners and/or agencies for various reasons.

There are four (4) locations along the alignment where the transmission line transitions from land to water and vice versa. From east to west, the first transition from land to water occurs at river mile 190 near The Dalles. The second transition occurs near river mile 150, allowing the cable to travel along land to circumvent the Bonneville Dam. The third transition occurs downstream of the Bonneville Dam between river miles 143 and 144, where the transmission line re-enters the Columbia River. The fourth and final transition occurs near river mile 106 in the Portland, OR, area. Preliminary locations of each of these land-to-water/water to land transitions are shown in Figure 1.4 through Figure 1.7.



Figure 1.4 Land-to-Water Transition at River Mile 190

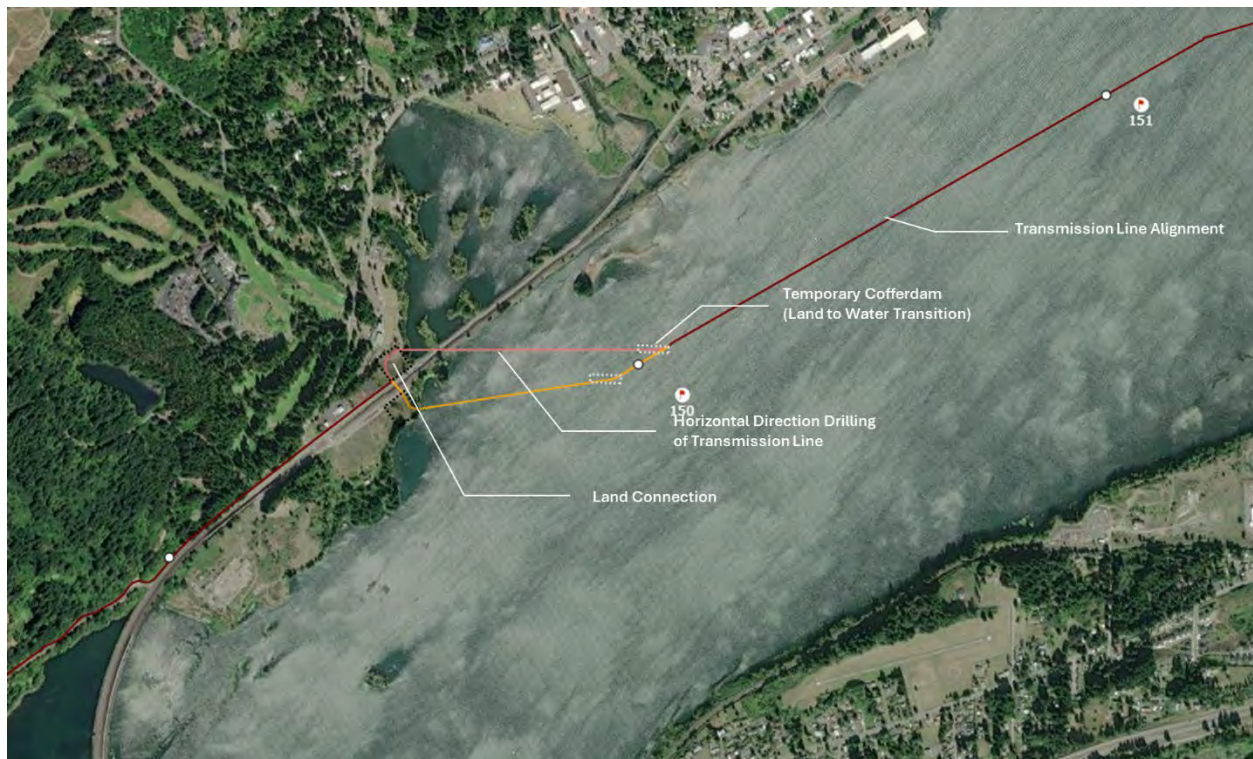


Figure 1.5 Land-to-Water Transition at River Mile 150. (Two options for the transition are shown in orange and pink.)

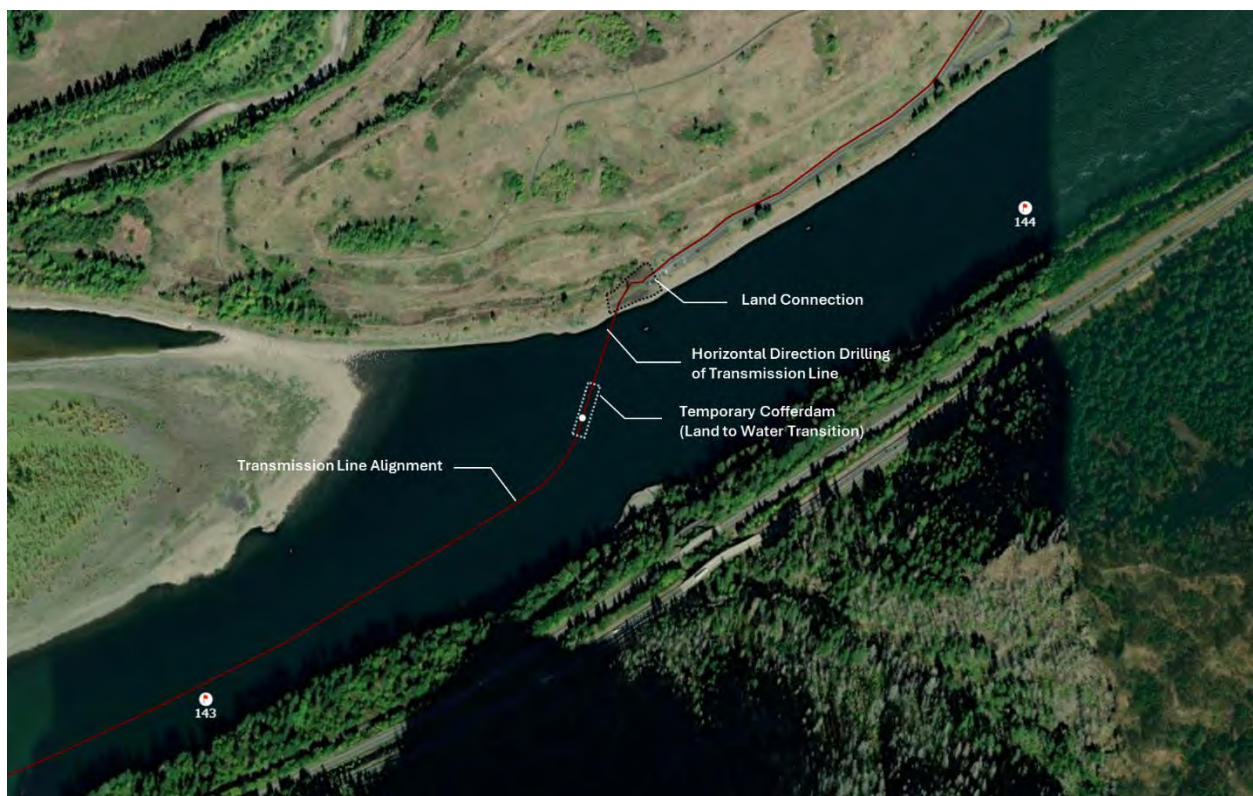


Figure 1.6 Land-to-Water Transition Between River Mile 143 and 144



Figure 1.7 Land-to-Water Transition Near River Mile 106

1.2 Temporary Cofferdam

A temporary three-sided wet cofferdam is planned to be constructed and placed in the river to facilitate a safe workspace, free of currents, for divers to conduct the land-to-water cable transition. Installation of the cofferdam will involve driving sheet pile to construct a three-sided vertical structure approximately 70 feet by 300 feet in size. Once the sheet piles are installed, dredging would occur to allow divers access to the conduit for pulling the submarine cable to land. The cofferdam will be removed after cable installation. A schematic plan view of the wet cofferdam is provided in Figure 1.8.

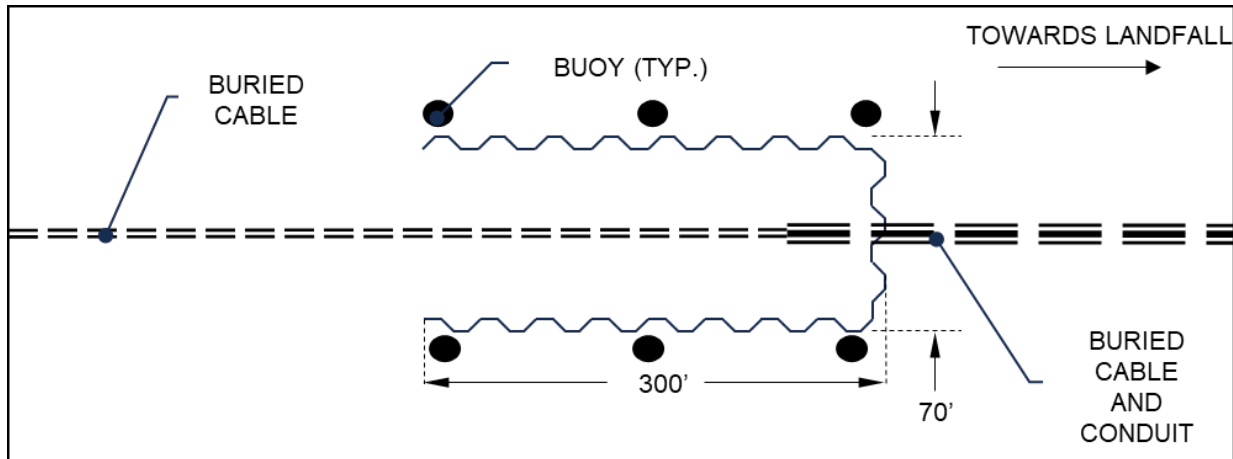


Figure 1.8 Plan View Schematic of Wet Cofferdam

1.3 Temporary Dredging

Once the wet cofferdam is in place, sediment within the cofferdam will be removed by a mechanical dredge (e.g., clam shell) and temporarily placed on a barge. If in situ dewatering is not allowed per regulatory requirements, the barge will be of a configuration to not allow dewatering. Within the wet cofferdam, sediment will be dredged/excavated to approximately 10 feet below existing grade and within most of the footprint of the wet cofferdam. It is anticipated that approximately 6,500 cubic yards will be removed from each of the four (4) land-to-water transitions. The in-river cables will be placed at the bottom of the excavation area to match the elevation of the cables installed by jet-plow. A schematic profile of the dredging within the wet cofferdam is provided in Figure 1.9

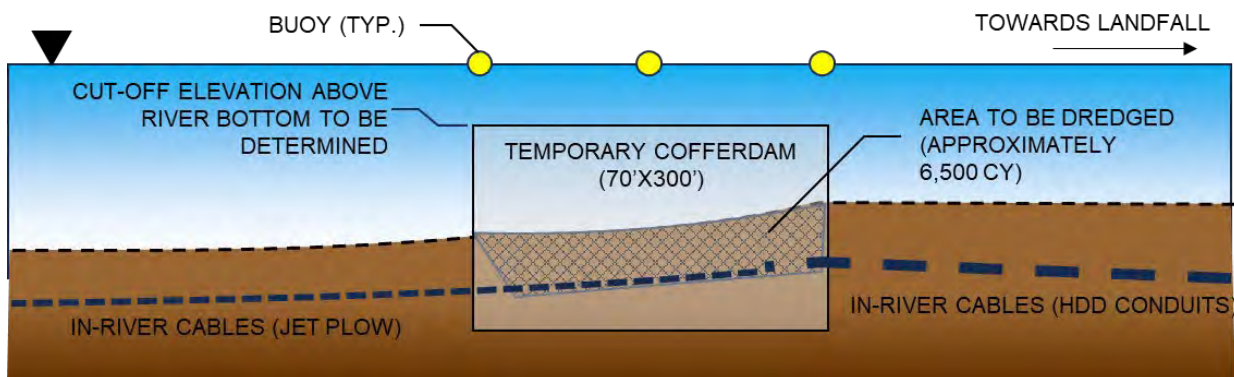


Figure 1.9 Profile Schematic of Wet Cofferdam and Required Dredging

1.4 In-Water Work

After completion of the dredging within the wet cofferdam, horizontal directional drilling (HDD) will be performed from land to the designated in-river location. The transmission line conduit will be floated into place and installed after the drilling is complete. Once the conduit is in place, the submarine cable will be pulled through the conduit using a winch. When the submarine cable is on land, it will then be spliced to the land transmission line in the HDD pit. Splicing will not occur in the river. The removed

sediment will be placed in the excavation area following construction and the temporary cofferdams removed. Additionally, the transmission cable would be routed below the Willamette River by HDD construction methods. No dredging or jet-plow installation is proposed in the Willamette River.

1.5 SITE HISTORY INFORMATION

Previous sediment sample locations collected from 2013 to 2023 and recorded in Washington State Department of Ecology Environmental Information Management (EIM) System are shown on Map 2. Location identifications by map page are presented in Attachment C.

1985 - In 1985, samples were taken at Day Beacons (dolphins) numbers 11, 13, and 15 in the channel with an average density of 1907 gm/L, a specific gravity of 2.71, a void ratio of 1.483, and a volatile solid content of 0.6 percent. The sediment was classified as poorly graded sand.

1992 - In 1992, three surface samples were collected upstream of the Glen Jackson Bridge adjacent to Day Beacons 11, 13, and 14. The samples were analyzed for physical characteristics, including dredge tests, gradations, and volatile solids. The samples averaged 96.2 % poorly graded sand with a median grain size in the range of coarse sand (0.82 mm). Volatile solids were 0.4 %, indicating a low organic content. With > 80% sand and <5% volatile solids and no known contaminant sources nearby these sediments were characterized as “exclusionary”; no further testing was required for in-water or upland placement.

1999 - In 1999, twelve box core surface sediment samples were collected from shoals at 6 stations in the Columbia River, river miles (RMs) 106+30, 113+00, 114+00, 118+20, and 125+00. Four of the 12 samples were collected near the I-5 Bridge, approximate RM 106+30, two samples from the main channel and 2 from the alternate barge channel, under the wide span of the I-5 Bridge, which connects to the main channel 7,500 feet upstream. The material collected consisted of 8.7% gravel, 89.8% sand, and 1.6% fines (silt and clay). The median grain-size was 0.87mm, in the range of coarse sand (mean 1.3mm very coarse sand) and 0.87% volatile solids. The material represented by the samples collected from the Columbia River sites was determined suitable for either open, unconfined in-water or upland placement without further characterization.

2009 - In 2009, twelve (12) samples, including one Ponar grab sample and 11 box core samples, were obtained from intermittent shoals from RM 108+45 to RM 133+38. The physical analysis indicated overall grain-size was approximately 99.9% sand and gravel. Chemical analyses showed levels of metals were consistent with historical values, and all analyte concentrations were substantially below the 2009 Sediment Evaluation Framework for the Pacific Northwest (SEF) screening levels (SLs).

2019 - In 2019, collection and evaluation of the sediment data were completed using the 2018 SEF guidance. All sediment samples consisted of more than 97.5 % coarse-grained sediments

(gravel and sand). These results confirm Vancouver to Dalles (VTD) Federal Navigation Channel (FNC) sediments are predominantly coarse-grained. The TOC results for all samples are less than 0.20%. The April 17, 2019, Suitability Memorandum (SDM) documented a “very low” management area rank and confirmed coarse grain size with low total organic carbon for the dredge prism; chemical testing of the post-dredge surface sediments is not required. The VTD FNC post-dredge surface is suitable for unconfined aquatic exposure without further testing per the 2018 SEF guidance.

Per the SEF guidance, dredging projects composed of greater than 80% coarse-grained material, having less than 0.5 percent TOC, located in areas of strong current, and are assigned a management area rank of “very low” do not require chemical testing (2018 SEF Section 3.5.3 Low-Risk Project Evaluations). Therefore, VTD FNC sediments do not need to be re-characterized for 10 years (January 2029). The VTD FNC sediments project are suitable for unconfined aquatic placement and exposure per the 2018 SEF guidance without further testing.

2019 – In April 2019, sediment grab samples were collected at six locations in the Oregon Slough Federal Navigation Side Channel Upstream Entrance (OSU FNC). The samples were processed and evaluated for conventional and chemical characteristics. Based on the results of USACE’s characterization and PSET’s August 1, 2019 SDM, the OSU FNC sediments are low management area rank and suitable for unconfined aquatic exposure per the 2018 SEF guidance without additional testing through 2026.

The Oregon Department of Environmental Quality’s (ODEQ’s) Environmental Cleanup Site Information (ECSI) database (<https://www.deq.state.or.us/lq/ECSI/ecsiquery.asp>) and Washington Department of Ecology (WSDOE) Cleanup and Tank Search (<https://apps.ecology.wa.gov/cleanupsearch>) were queried to identify potential sources of contamination in the project area. The search area is approximately 0.5 miles from each side of the potential project alignment for the length of the project. The locations and descriptions of ODEQ and cleanup sites and Regulatory dredging permits appear in Table Attachment A-1 and A-2. Site information for sites within 0.5 miles of the proposed alignment is provided in Attachments B-1 and B-2. Sample identifications for previous sediment evaluation locations are provided in Attachment C.

1.6 CURRENT PROJECT CONDITIONS

USACE condition surveys within the FNC conducted between 2020 and 2023 indicate minor shoaling between Vancouver and the Bonneville Dam. USACE bathymetric surveys within the FNC shows minor shoaling between Bonneville Dam and the Dalles. This shoaling will not impact cable placement. Cable placement within the FNC will be a minimum of 7 feet below the authorized navigation depth (5 feet advance maintenance + 2 feet safety) _Outside of the FNC, cable placement is designed to be a minimum of 10’ below the sediment surface, regardless of the elevation of the sediment surface.

Hydrodynamic modeling efforts are underway to identify sedimentation issues that may affect navigation as part of the 408 process. Through this effort, a better understanding of the potential for the cable to be uncovered due to river bottom morphology will be determined. Based on current understanding of the sediment transport within the Columbia River, it is not anticipated to have portions of the cable become uncovered unless there is a large shift in the river's thalweg due to an extreme event. Once the cable is installed, CRT will routinely monitor the condition of the cable, including its burial depth. If portions of the cable do become uncovered, mitigation measures will be implemented, such as protecting with a concrete mattress (if allowable).

2.0 PROJECT PLANNING AND COORDINATION

2.1 DATA QUALITY OBJECTIVES

This characterization of the CRT, LLC cable placement will document the sediment physical properties of the proposed dredged materials. If the material from any samples is less than 80% sand ($\leq 80\%$ of the bulk sediments retained on a no. 230 sieve) or Total Organic Content greater than 0.5%, sediment testing of the full suite of SEF chemicals of concern, organotin and total petroleum hydrocarbons will be performed. The following data quality objectives will be followed for this characterization of the CRT Project:

- Characterize sediments in the proposed project alignment in accordance with the regional dredged material testing protocols found in the 2018 SEF.
- Collect, handle, and analyze representative sediment from the project in accordance with protocols and Quality Assurance/Quality Control (QA/QC) requirements.
- Characterize sediments to be dredged to determine their suitability of unconfined, aquatic placement, per Clean Water Act (§404) sediment testing regulations.
- Analyze for physical parameters as outlined in the 2018 SEF (refer to Section 5 of this SAP).
- Analyze for chemical parameters as outlined in the 2018 SEF (refer to Section 5 of this SAP) if any sample $\geq 80\%$ sand ($\leq 80\%$ of the bulk sediment retained on a no. 230 sieve) or TOC content greater than 0.5%. Laboratory methods and sample quantitation limits appear in SEF Table 5-1.
- Bioassay evaluation is not proposed.

3.0 SAMPLING AND ANALYSIS REQUIREMENTS

3.1 PROJECT RANKING

A very low management area ranking throughout the project due to its location away from urban watersheds and proximity to potential sources of contamination. Twenty-six locations will be sampled to characterize sediment within the proposed project alignment (Map-2). The management area ranking may be reevaluated based on the sediment analytical results.

3.2 SAMPLING DEVICE SELECTION

The project alignment footprint will be sampled to determine sediment quality. Two different

sample collection methods will be employed. A vibracore sediment sampler will be used to obtain six core samples of the dredge prism; one location where dredging will be required prior to cable placement (Map-1) and five locations where the cable placement will transition between terrestrial and water (Map-2). Twenty (20) grab samples will be collected by Ponar or similar sampler within the proposed footprint, where pre-dredging will not be required.

3.3 CONCEPTUAL SITE MODEL

Table 3.1 contains the Conceptual Site Model (CSM) for the CRT Project. The CSM identifies potential contaminant exposure pathways and receptors associated with the transmission line placement.

Table 3.1 Conceptual Site Model for CRT Project Dredging and Disposal.

Secondary Media (Generated by Dredging) Release Mechanisms (Processes that liberate sediment and chemicals of concern during and after dredging, providing potential avenues for receptor exposure to contaminants in the dredge area and at the disposal site)	Exposure Route (The point of contact or entry of a contaminant into a receptor)		Receptors and Habitat				
			Benthic	Fish	ESA Species	Birds/Mammal	Humans
DREDGE AREA PATHWAYS (between the sediment and receptors in the dredge area)							
Suspended Sediment (Water Column) Resuspension of sediment during dredging →	Direct Contact →		C	C	C	C	X
	Dietary →	Tertiary Media (Tissue) →	C	C	C	C	I
Generated Residuals Redeposition of suspended sediments, fallback (from the excavation head or debris removal), and/or slope failure and sloughing →	Direct Contact →		C	C	C	I	X
	Dietary →	Tertiary Media (Tissue) →	C	C	C	I	I
Undisturbed Residuals Exposure of buried sediments by dredging (the Z-layer) →	Direct Contact →		X	X	X	X	X
	Dietary →	Tertiary Media (Tissue) →	X	X	X	X	X
Unconfined, Aquatic DISPOSAL PATHWAYS* (between disposed sediment and disposal site receptors)							
Suspended Sediment (Water Column) Suspension of sediment during disposal and release of interstitial water →	Direct Contact →		C	C	C	C	X
	Dietary →	Tertiary Media (Tissue) →	C	C	C	C	I
Disposal Material Deposition of dredged sediment at the disposal site →	Direct Contact →		C	C	C	I	X
	Dietary →	Tertiary Media (Tissue) →	C	C	C	I	I
Pathway Completeness Abbreviations: C = Complete; I = Complete but insignificant; X = Incomplete							

Dredge Area Pathways: The nature of the construction techniques will result in dredge material being “placed” almost immediately after dredging. Benthic organisms are expected to have complete exposure since there are no barriers or obstacles between them and the substrate or water column. Contaminant pathways to fish and Endangered Species Act (ESA) species are

considered complete due to the potential year-round presence of juvenile salmon. Birds and mammals are expected to be complete due to the 80-mile construction footprint.

The direct human exposure pathway is considered incomplete: human exposure to potentially contaminated dredged material at the dredge area and in the water column is unlikely since the area has no swimming beaches, and workers during dredging operations are not expected to come into direct contact with the sediments. Indirect contaminant exposure to humans may be possible via the consumption of organisms exposed to the dredged materials and residuals.

Disposal Site Pathways: Since dredge material will be placed in the same area where it was removed, the material would rapidly disperse, and contaminant levels would rapidly diminish to background levels. Due to the lack of human use in the Columbia River flow lane adjacent to the project area, human exposure pathways are considered incomplete for direct contact to suspended sediment and dredged material placement. Exposure pathways for dredged material at the disposal site were assumed to be complete for fish and ESA species due to their potential year-round presence. Exposure pathways for birds and mammals were also considered to be complete because in-water, flow lane disposal would occur over the length of the 80-mile pathway. It is worth noting that dredged material disposed in the flow lane rapidly disperses, thereby diminishing contaminant concentrations rapidly to background levels. Contaminant exposure pathways for benthic organisms at the disposal site are assumed to be complete.

4.0 SAMPLE COLLECTION AND HANDLING PROCEDURES

4.1 SAMPLING LOCATIONS

Vibracore stations are labeled as CRT24-VCX, where “VC” indicates a vibracore sample, and “X” indicates the core station (1 through 6). Grab samples stations are labeled as CRT24-GX where “G” indicates a grab sample, and “X” indicates the station (1 through 20). No compositing on any stations is proposed.

4.2 FIELD SAMPLING SCHEDULE

The CRTS sampling schedule is to be determined.

4.3 FIELD NOTES

Field notes will be maintained during sampling and sample processing operations. Included in the field notes will be the following:

- Names of the person(s) collecting and logging in the samples, including project and contractor staff.
- Date and start/stop times of sampling event and time each sample is collected.
- Weather conditions.
- Geographic location of each sample station. Number of sampling attempts per location.
- Depth of each station sampled as measured from the water surface. This will be accomplished using a lead line or calibrated depth finder.
- Tide corrected water elevation in CRD or Bonneville pool elevation observed during collection of each sediment sample.
- The sample station number and individual designation numbers assigned for each discrete sample.
- Descriptions of sediment core samples.
- Mudline elevation and core penetration elevation.
- Core recovery $[(\text{sample length} \div (\text{mudline elevation} - \text{core penetration elevation}) \times 100)]$.
- Deviations from the approved sampling plan and/or PSET SAP recommendations.

4.4 POSITIONING

The sampling team will locate and utilize the staff gauge nearest to each sample station to measure the water surface level at sampling time. Local staff gauge locations are provided in Table 4.1. Accurate water surface elevation readings are critical to these vibracore samples to determine the required core length to reach target penetration including +2' for Z-layer.

Table 4.1 Staff Gauge Locations

Location	Northing	Easting	Latitude	Longitude
Red Lion	720349	7645322	45.62194870	-122.6763832
Sheriff's Boat Dock	712559	7659882	45.60165266	-122.6186961
Sea Scout Base	710526	7667083	45.59659321	-122.5903648
Gov. Isl. Middle Range	706768	7681950	45.58732992	-122.5319317
Sandy Beach	704604	7688706	45.58185964	-122.5053401
Light 34	689577	7701890	45.54154381	-122.4524432
Washougal	702119	7721366	45.57719849	-122.3775865
Light 52	695724	7728974	45.56014492	-122.3473106
Corbett	688893	7742973	45.54227928	-122.2920765
Light 66	691647	7757406	45.55069502	-122.2359878
Light 68A	698776	7770521	45.57100457	-122.1853834
Light 73	702893	7777530	45.58269136	-122.1583489
Light 82	702266	7790724	45.58170326	-122.1067768
Light 85	711232	7803979	45.60700036	-122.0556899
Mult. Falls Upper Range	713615	7809350	45.61381654	-122.0348833
Light 91	716892	7821828	45.62344232	-121.9863635
Tanner Creek	720347	7828368	45.63324356	-121.9610494
Light 15	740133	7848180	45.68845652	-121.8849354
Ruthon Point	747027	7928766	45.71071904	-121.5699765
Wind River	749083	7870612	45.71402011	-121.7977300
Light 23	742548	7885971	45.69676072	-121.7372165
Light 28	743687	7903440	45.70059751	-121.6689197
Hood River Boat Basin	747610	7946144	45.71292892	-121.5019810
Light 3	744239	7958271	45.70408722	-121.4543535
Light 47	744815	7977818	45.70627468	-121.3778715
Light 55	740054	7998313	45.69380097	-121.2974668
Steel Dolphin	718725	8023184	45.63593928	-121.1994153
Dalles Boat Basin	706249	8029597	45.60187331	-121.1739377

Target station locations appear in Table 4.2, Table 4.3, and in Maps 1 and 2. Horizontal coordinates (lat., long.) will be referenced to the Oregon Coordinate System for proper North or South Zones NAD 83 (North American Datum 1983) and reported to the 0.00001 degree.

Table 4.2 CRT Vibracore Project Sampling Locations

Sample ID	Approximate Mudline (ft CRD) ¹	River Mile	Latitude (N)	Longitude (W)	Core Interval (ft CRD) ¹	Estimated Core Length (ft)
CRT24-VC1	-29	106	45.62242888	-122.6892856	Mudline to -39	12
CRT24-VC1Z					-39 to -41	
CRT24-VC2 ²	-24	111.5	45.60143086	-122.5728273	Mudline to -34	12
CRT24-VC2Z ²					-34 to -36	
CRT24-VC3	-26	143.5	45.62555938	-121.9799819	-26 to -36	12
CRT24-VC3Z					-36 to -38	
Sample ID	Approximate Mudline (ft Bonneville Pool) ^{1,3}	River Mile	Latitude (N)	Longitude (W)	Core Interval (ft Bonneville Pool) ^{1,3}	Estimated Core Length (ft)
CRT24-VC4	-60	150	45.68412602	-121.8902582	-60 to -70	12
CRT24-VC4Z					-70 to -72	
CRT24-VC5	-60	150	45.68495413	-121.8884269	-60 to -70	12
CRT24-VC5Z					-70 to -72	
CRT24-VC6	-20	190	45.6035157	-121.1691337	-20 to -30	12
CRT24-VC6Z					-30 to -32	

- 1 Measure actual mudline elevation and calculate core intervals at each location prior to sample collection.
- 2 Core interval for CRT24-VC2 is mudline to -34 ft CRD and CRT24-VC2Z interval is -34 to -36 ft CRD. Core intervals for all other stations are mudline to 10 ft below mudline, Z layer interval is 10 to 12 ft below mudline.
- 3 Bonneville Pool Elevation which is +73.3 feet above North American Vertical Datum of 1988 (NAVD 88).

Table 4.3 CRT Grab Sample Locations

Sample ID	Sample Method	River Mile	Latitude (N)	Longitude (W)	Approximate Mudline (ft CRD) ¹
CRT24-G1	Grab	108	45.60770738	-122.6420936	-17
CRT24-G2	Grab	109	45.60398394	-122.6220773	-30
CRT24-G3	Grab	113.5	45.59176211	-122.5360392	-20
CRT24-G4	Grab	115.5	45.58262805	-122.4932608	-26
CRT24-G5	Grab	119.5	45.56697565	-122.4240791	-36
CRT24-G6	Grab	121.5	45.57502581	-122.3866289	-38
CRT24-G7	Grab	124	45.56012852	-122.3445797	-30
CRT24-G8	Grab	130	45.55509447	-122.2300254	-38
CRT24-G9	Grab	133	45.57569907	-122.1817807	-26
CRT24-G10	Grab	136	45.58269418	-122.1144395	-16
CRT24-G11	Grab	140	45.60631712	-122.0509381	-44
Sample ID	Sample Method	River Mile	Latitude (N)	Longitude (W)	Approximate Mudline (ft Bonneville Pool) ^{1,2}
CRT24-G12	Grab	156	45.69802533	-121.7663468	-48
CRT24-G13	Grab	161	45.70394114	-121.6693439	-56
CRT24-G14	Grab	165	45.71589171	-121.5853433	-34
CRT24-G15	Grab	168	45.72335353	-121.5295006	-44
CRT24-G16	Grab	172.5	45.69832879	-121.4436308	-25
CRT24-G17	Grab	174.5	45.69032979	-121.3996877	-38
CRT24-G18	Grab	178	45.70100887	-121.3423553	-40
CRT24-G19	Grab	183	45.67446728	-121.2417011	-24
CRT24-G20	Grab	189	45.60941700	-121.1885420	-95

1 Measure actual mudline elevation at each location prior to sample collection.

2 Bonneville Pool Elevation which is 73.3 feet above North American Vertical Datum of 1988 (NAVD 88).

4.5 DECONTAMINATION

All sampling devices, trays, bowls, and utensils will be thoroughly decontaminated prior to use according to the following procedure:

- i. Remove excess sediment with a brush and in situ water.
- ii. Clean with a phosphate-free detergent solution (such as Liquinox ©).
- iii. Rinse equipment thoroughly with clean in situ water.
- iv. Triple rinse with analyte-free deionized water.

All utensils and samplers used to collect chemical samples will require decontamination between stations. All handwork for chemical analyses will be conducted with disposable blue nitrile gloves that will be rinsed with distilled water before and after handling each individual

subsample, as appropriate, to prevent sample contamination. Gloves will be disposed of between subsamples to prevent cross-contamination of the archived material. Utensils and equipment used to collect physical samples will only be rinsed with site water and will not undergo the full decontamination procedure. After decontamination, sampling equipment should be protected from recontamination. Any sampling equipment suspected of contamination should be decontaminated again or removed from use. During core sampling, extra core liners (or core tubes) will be available on-site to prevent interruption of operations should a sampling tube become contaminated. Sampling utensils should be decontaminated again after all sampling has been conducted for a given sample station to prevent cross-contamination.

4.6 SAMPLING METHODS AND FIELD PROCESSING

Sampling will be Vibracore or PONAR, depending on the sites.

The following method will be used to collect the vibracore samples:

- i. Once the sampling vessel is on station and immediately before collecting the core sample, the water depth will be recorded, and the tide tables will be consulted to determine the tide- corrected depth to mudline.
- ii. The core sampler will be equipped with a decontaminated, clear, flexible core liner (one core liner per core); the core sampler will be advanced into the sediment to the target elevation or until refusal is met, whichever is encountered first. If refusal is encountered, the sampling team will try three times within 25' of the proposed station to get to bottom of Z-layer. If the bottom of the Z-layer is not reached after three attempts, then call PSET lead to discuss options.
- iii. The core sampler will be pulled through the water column, and the core liner will be removed from the sampler, tied-off on both ends, and stored on deck under cover for processing on land. Top/bottom orientation will be noted on the core liner with permanent marker. Core recovery will be noted prior to accepting the core.
- iv. A recovery of 75% is defined as an acceptance guideline for all cores. If recovery is less than 75%, the field team will make two more attempts to achieve sufficient recovery. If low core recovery is an issue, the recovery guideline may be adjusted downward in the field (in coordination with PSET staff). If core recovery is chronically low across the project, the percent recovery guideline may be adjusted in the field in coordination with the PSET.
- v. The field team will log all successful and failed sampling attempts on the field data form.
- vi. The core will be placed on decontaminated, rinsed stainless steel trays; the dredge prism sample intervals will be noted on the flexible core liner with permanent marker. A decontaminated utility knife will be used to cut the flexible core liner open to expose the core sample.
- vii. Sediment chemical samples (the sample and archived subsamples) will be placed in decontaminated glass jars provided by the contract laboratory. Samples will be stored in coolers on wet ice to maintain the $\leq 4^{\circ}\text{C}$ holding temperature.
- viii. Sediment physical samples will be double-bagged in zip-closure freezer bags, and the zip closure shall be duct-taped closed to ensure sample retention.
- ix. Excess sediment and other investigation-derived waste will be disposed at an appropriate upland facility.

The following method will be used to collect the PONAR grab samples:

- i. Once the sampling vessel is on station and immediately before collecting the grab sample, the water depth and the water surface elevation will be recorded to determine the depth to mudline.
- ii. The decontaminated sampler will be deployed on station; multiple deployments may be necessary to get sufficient volume for the physical and contingency chemical samples.
- iii. When the grab sampler is triggered, it will be pulled through the water column and placed in a decontaminated stainless-steel tray on the deck of the sampling vessel.
- iv. Sample recovery will be checked. If the sampler jaws are held open with gravel or debris, the sample will be checked for winnowing. If substantial sediment loss is evident, the attempt will be logged as negative, and the sediment will be discarded back into the waterway.
- v. The field team will log all successful and failed sampling attempts on the field data form.
- vi. Sediment samples/subsamples that are accepted will be emptied from the PONAR into the decontaminated stainless-steel tray; a decontaminated stainless steel spoon will be used to scrape out any material adhering to the inside of the sampler.
- vii. The chemical samples will be placed in decontaminated glass jars provided by the contract laboratory. Samples will be stored in coolers on wet ice to maintain the $\leq 4^{\circ}\text{C}$ holding temperature per the SEF guidance.
- viii. Physical samples will be double-bagged in zip-closure freezer bags; the zip closure shall be duct-taped closed to ensure sample retention.

For both types of samples:

- i. Decontamination procedures are described in Section 4.5.
- ii. Field processing procedures are described in Section 4.6.

Each sample will be photographed. All sample logs will include the following information:

- i. Sample recovery and number of successful/failed attempts per station
- ii. Physical sediment description (includes apparent grain size, density/consistency, color)
- iii. Odor (e.g., hydrogen sulfide, petroleum products)
- iv. Stratification and/or unique lenses of material
- v. Vegetation
- vi. Debris
- vii. Biological activity (e.g., detritus, shells, tubes, bioturbation, live or dead organisms)
- viii. Presence of oil or organic sheen
- ix. Any other distinguishing characteristics or features

4.7 FIELD REPLICATES

No field (QA) replicate is planned for the dredge prism chemical samples. Laboratory QC will be used to evaluate and assess data quality.

4.8 SAMPLE TRANSPORT AND CHAIN-OF-CUSTODY

After sample containers have been filled and packaged to prevent breakage, they will be packed on wet ice in coolers. Chain-of-custody procedures will commence in the field. The field team leader will track the delivery of the samples to the contract laboratory; depending on the

selected contract laboratory, coolers containing the samples may be shipped by FedEx or picked-up by the contract laboratory's courier service. Sample holding times and storage requirements are presented in SEF Table 4-3. Specific procedures are as follows:

- i. Samples will be packaged and shipped in accordance with U.S. Department of Transportation regulations as specified in 49 Code of Federal Regulations (CFR) 173.6 and 49 CFR 173.24 or delivered directly to the testing laboratory.
- ii. Individual sample containers will be packed to prevent breakage.
- iii. The coolers will be clearly labeled with sufficient information (name of project, time and date container was sealed, person sealing the cooler and office name and address) to enable positive identification.
- iv. Chain-of-custody forms will be enclosed in a plastic bag and placed inside the coolers. Upon transfer of sample possession to the laboratory, the persons transferring custody of the coolers will sign the chain-of-custody form. Upon receipt of samples at the laboratory, the coolers will be inspected, and the receiver will record the condition of the samples.
- v. Custody seals will be used on coolers during shipment.

5.0 LABORATORY PHYSICAL AND CHEMICAL SEDIMENT ANALYSIS

5.1 LABORATORY ANALYSIS PROTOCOLS

Laboratory testing procedures for chemical and physical parameters will be conducted in accordance with the 2018 SEF. The samples will be analyzed for all the parameters listed in Sections 5.1.2 and 5.1.3, as requested on the chain-of-custody record. Private contract analytical laboratories will conduct all physical and chemical analyses. Per the 2018 SEF, waters with salinities less than 1 part per thousand (ppt) are considered freshwater, waters with salinities greater than 25 ppt are considered marine, and waters with salinities between 1 and 25 ppt are considered estuarine. This reach of the Columbia River is well above the zone of saltwater wedge (extends up to approximately CRM 23) and considered to be freshwater; as such, the contractor will use the freshwater sediment quality guidelines published in the 2018 SEF.

5.1.1 LIMITS OF DETECTION

All reasonable means, including additional cleanup steps and method modifications, will be used to meet target levels. Detection of analytes between the method reporting limit (MRL) and the method detection limit (MDL) should be "J" flagged and reported as an estimate. All analytes should meet quantitation limits listed in Table 5.1 of the 2018 SEF. For undetected chemicals, the laboratory must achieve MDLs or limits of detection (LODs) below the 2018 SEF freshwater benthic toxicity SLs. If the laboratory is unable to achieve sufficiently low MDLs for particular analytes, prior to submitting the final data report the reason(s) for the elevated MDL(s) must be reported.

5.1.2 SEDIMENT CONVENTIONAL AND CHEMICAL ANALYSES

Private analytical laboratories will analyze for physical parameters and chemical parameters, as

described below:

Conventional analyses (grain size [D-422 mod], total solids [Puget Sound Estuary Program (PSEP) 1986], total organic carbon [Environmental Protection Agency (EPA) method 9060] will be performed for all samples. Total Petroleum Hydrocarbons (DRO/RRO) – NWTPH-Dx and Rx will be performed on all samples to ensure meeting sample holding time. Additionally, all samples collected upstream of the Bonneville Dam will be analyzed for gross Beta analysis (SW846 9310).

The type of analyses performed will depend on the results of conventional analyses as described in Section 2.1. If any sample $\leq 80\%$ sand ($\leq 80\%$ of the bulk sediment retained on a no. 230 sieve) or TOC content greater than 0.5%, the following chemical analyses will be performed on those samples:

- Metals - (Ag, As, Cd, Cr, Cu, Ni, Pb, Se, and Zn) by EPA 6020; Hg by EPA 7471
- Polynuclear Aromatic Hydrocarbons EPA 8270D
- Semi-Volatile Organic Compounds (Phthalates, Phenols, Miscellaneous Extractables) – EPA 8270D
- Pesticides & Breakdown Products – EPA 8081B
- Polychlorinated Biphenyls (total Aroclors) – EPA 8082A
- Mono-, di-, tri-, and tetra-butyltin – EPA 8270D

All samples will be shipped to the contract laboratory within 2 days of collection. If conventional analysis triggers chemical analysis, to the maximum extent practicable, all chemical results will be provided by the laboratory within 30 business days of sample receipt. All samples for physical and chemical testing will be maintained at the testing laboratory at the temperatures specified in Table 4-3 of the SEF and analyzed within the holding times shown in the table.

5.1.3 QUALITY ASSURANCE/QUALITY CONTROL

The chemistry QA/QC procedures found in Table 5-1 and Attachment D will be followed. Recommended sediment analytical methods appear in Table 5.1 of the SEF.

Table 5.1 Minimum Laboratory QA/QC

Analytical Type	Method Blank ²	Duplicate ²	RM ^{2,4}	Matrix Spikes ²	Surrogates ⁵
Semivolatiles ¹	X	X ³	X	X	X
Dioxins/furans	X	X ³	X	X	X
Pesticides/Polychlorinated Biphenyls (PCBs) ¹	X	X ³	X	X	X
Metals	X	X	X	X	
Total Organic Carbon	X	X	X		
Total Solids		X			
Total Petroleum Hydrocarbons (TPHS)	X	X		X	X
Particle Size		X			
1. Initial calibration required before any samples are analyzed, after each major disruption of equipment, and when ongoing calibration fails to meet criteria. Ongoing calibration required at the beginning of each work shift, every 10-12 samples or every 12 hours (whichever is more frequent), and at the end of each shift. 2. Frequency of Analysis = one per batch 3. Matrix spike duplicate will be run 4. Reference material 5. Surrogate spikes will be included with every sample, including matrix-spiked samples, blanks and reference materials					

5.2 LABORATORY WRITTEN REPORT

The analytical laboratory will document all the activities associated with sample analyses and will prepare a written report. At a minimum, the following will be included in the report:

- i. Results of the laboratory analyses and QA/QC results
- ii. All protocols used during analyses
- iii. Chain of custody procedures, including explanation of any deviation from those identified herein
- iv. Descriptions of the laboratory analytical protocols and summary of issues encountered during the analysis of sediment samples (e.g., matrix interference and potential sources of interference, elevated detection limits, etc.)
- v. Location and availability of laboratory data report

As appropriate, this SAP may be referenced in describing protocols.

6.0 REPORTING

6.1 SEDIMENT CHARACTERIZATION REPORT

A written discussion of findings shall be prepared documenting the physical, and contingency chemical (if necessary) characteristics of the potential material to be dredged. The physical and

chemical reports will be included as reference; individual copies will be furnished as requested. The following will be included in the report:

1. A summary of the sampling event:
 - a. Sampling equipment and protocols used.
 - b. Methods used to locate sampling positions.
 - c. Table with coordinates of actual sampling locations, measured water depth at each location, tidal stage or river level at the time of sampling each station, and mudline elevations corrected to, Columbia River Datum, or Bonneville pool elevation (depending on the sample location)
2. Deviations from the approved SAP
3. A plan view showing target and actual sampling locations with an overlay of the project alignment.
4. A table summarizing the sampling scheme, depth to mudline and the top and bottom elevations of each core and corresponding Z-layer (post dredge surface) interval, actual core lengths and depth of penetration, and core recovery (referenced to the project vertical datum and the mudline)
5. Table of analyzed concentrations for all Chemical of Concerns (CoCs), lab and validation qualifiers, method reporting limits and MDLs, relevant SEF SLs, and all SL exceedances highlighted.
6. Chemistry QA review and summary of the data validation results.
7. Appendices/attachments:
 - a. Sampling/field log
 - b. Core logs: core penetration and recovery data (if cores used) and whether recovery correction was used.
 - c. Photos of the sampling event
 - d. Chemistry data report (including a case narrative)
 - e. Data validation report
 - f. EIM-ready data (electronic submittal only)
 - g. Chain-of-custody form(s)

7.0 REFERENCES

Northwest Regional Sediment Evaluation Team (RSET). 2018. Sediment Evaluation Framework for the Pacific Northwest.

Oregon Department of Environmental Quality. 2023. Environmental Cleanup Site Information Database query. Available at: <https://www.deq.state.or.us/lq/ECSI/ecsiquery.asp>

U.S. Army Corps of Engineers, Portland District. 2019. Sediment Quality Evaluation Report, Oregon Slough Upstream Federal Navigation Side Channel.

U.S. Army Corps of Engineers, Portland District. 2019. Sediment Quality Evaluation Report, Vancouver to the Dalles Federal Navigation Channel.

U.S. Army Corps of Engineers, Portland District. 2021. Suitability Memorandum (SDM), Oregon Slough Downstream Shallow Draft Federal Navigation Channel.

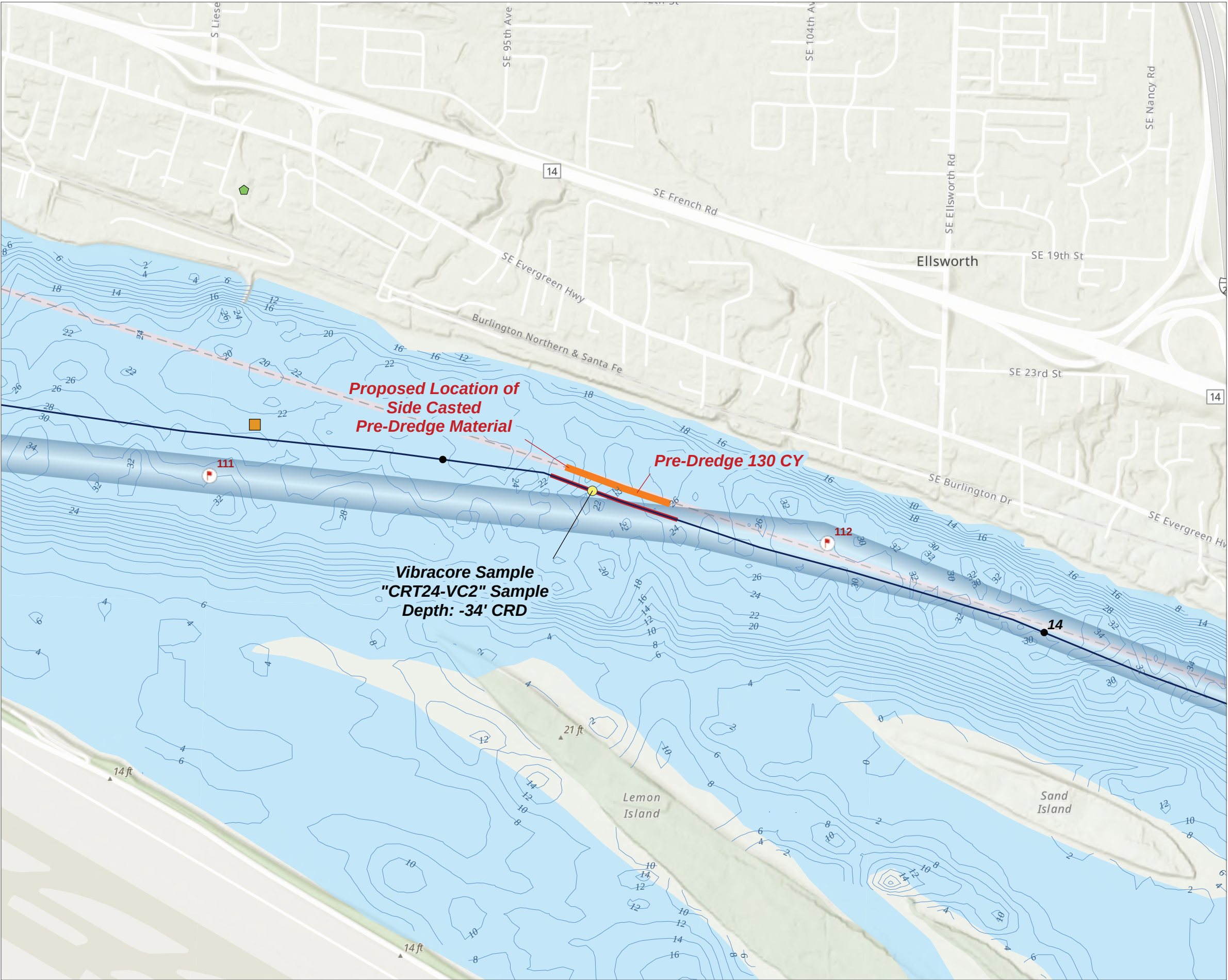
U.S. Army Corps of Engineers, Portland District. 2019. Suitability Memorandum (SDM), Vancouver to the Dalles Federal Navigation Channel.

Washington Department of Ecology (WSDOE). 2023. Cleanup and Tank Search database query, available at: <https://apps.ecology.wa.gov/cleanupsearch>

Maps

Map 1 – Pre-Dredge Locations

Map 2 – Sample Locations

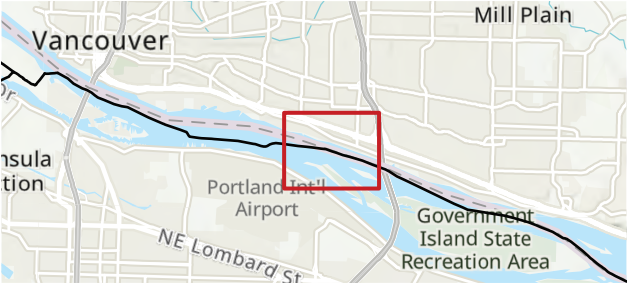


Map 1
Pre-Dredge Location

- RIVER MILES (USACE)
- STATIONING
- NO FURTHER ACTION REQUIRED
- OTHER
- SEDIMENT SAMPLE LOCATION
- PREVIOUS SEDIMENT SAMPLES

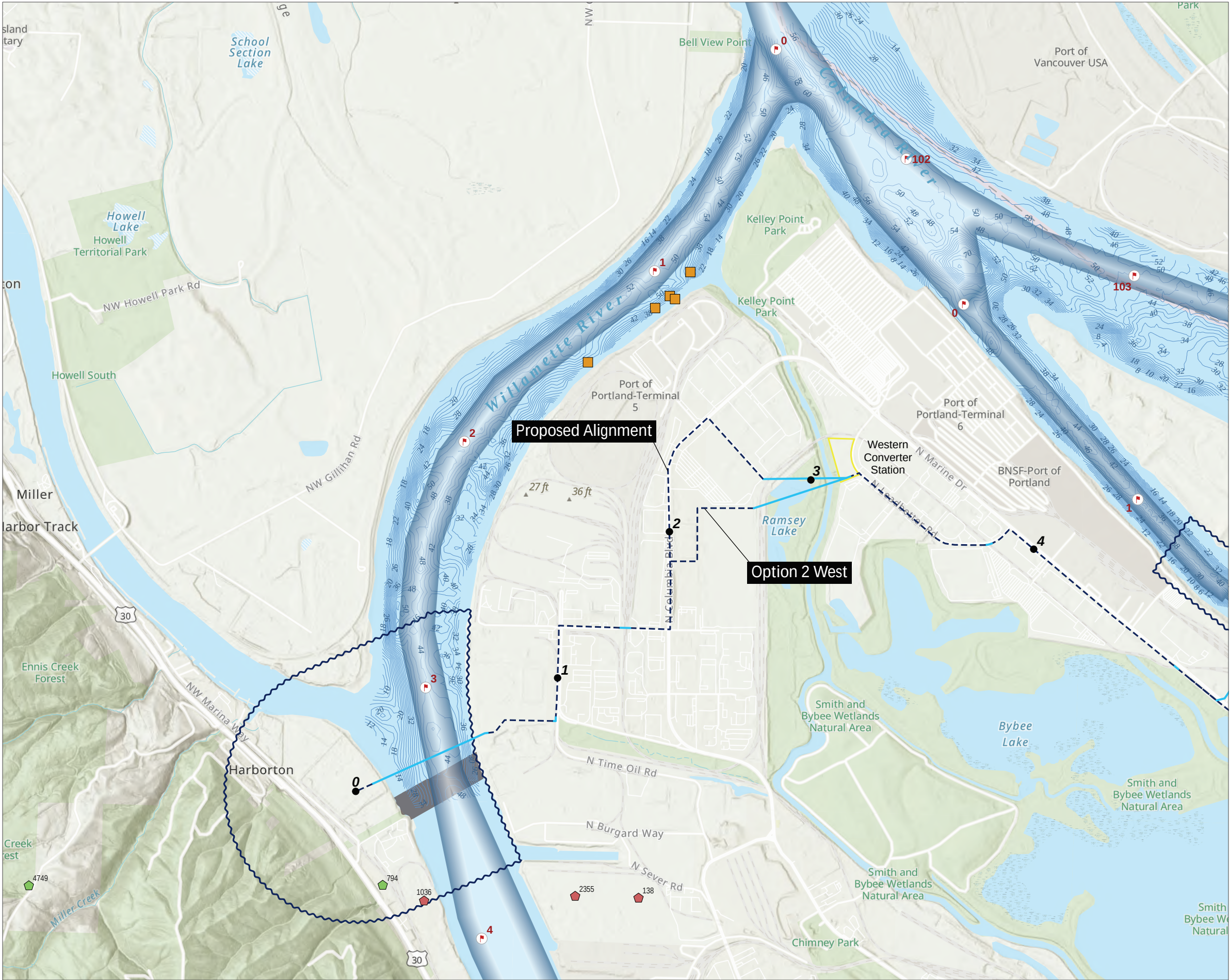
- PROPOSED ALIGNMENT
- HDD
 - HYDROFLOW
 - UPLAND INSTALLATION (E.G., TRENCHING)
 - PRE-DREDGE LOCATION
 - SIDE-CASTED PRE-DREDGE
 - BATHYMETRY CONTOUR (2FT) (CRD DATUM)
 - FEDERAL NAVIGATION CHANNEL
 - HALF MILE BUFFER

CASCADE RENEWABLE TRANSMISSION



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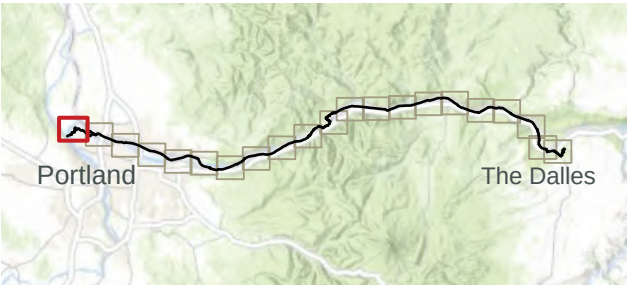


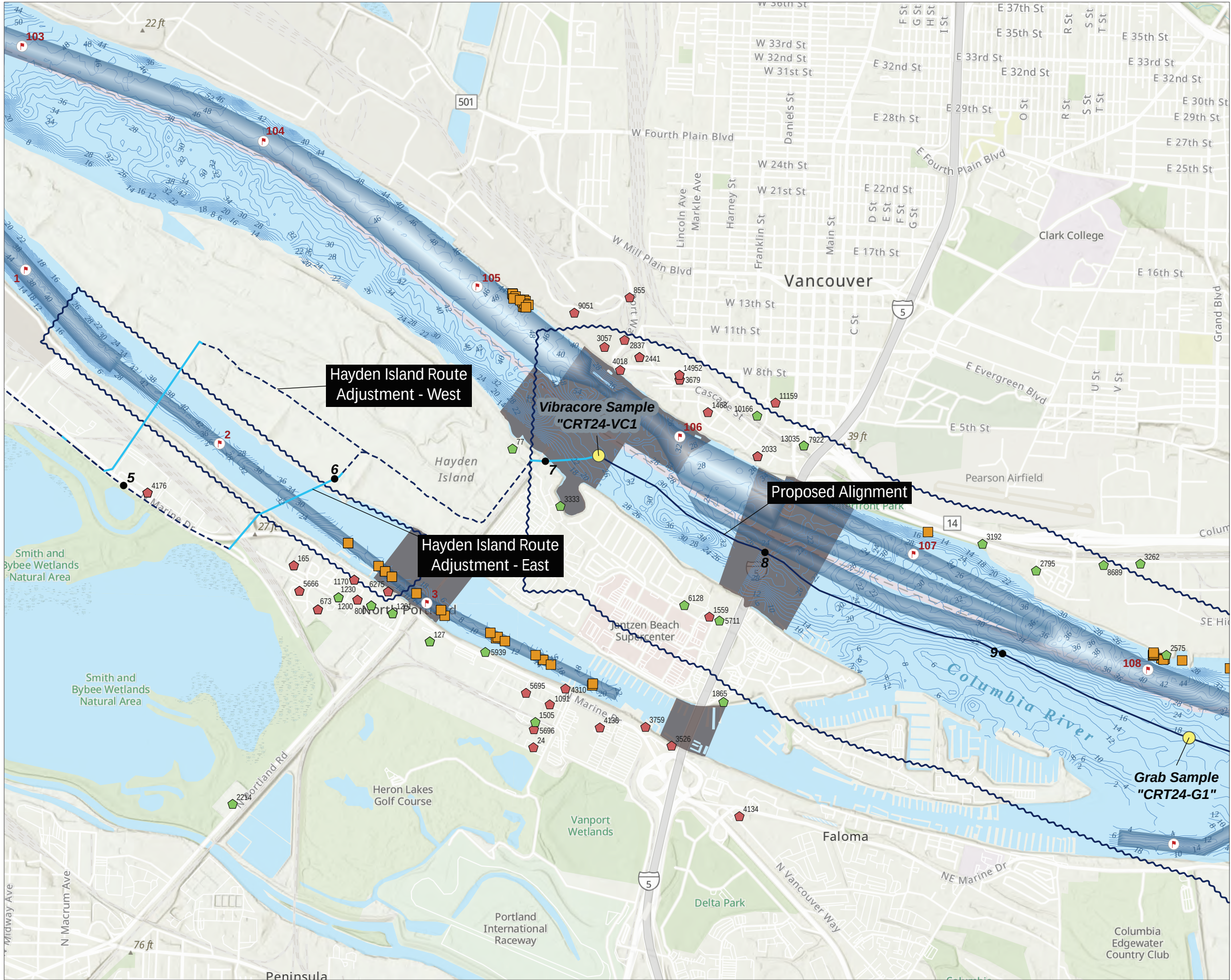


Map 2
Project Alignment
Page 1 of 21

- RIVER MILES (USACE)
- STATIONING (MILES)
- PREVIOUS SEDIMENT SAMPLES
- ENVIRONMENTAL CLEANUP SITE
 - NO FURTHER ACTION REQUIRED
 - OTHER
- PROPOSED ALIGNMENT
 - HDD
 - HYDROPLOW
 - UPLAND INSTALLATION (E.G., TRENCHING)
 - PRE-DREDGE LOCATION
 - BATHYMETRY CONTOUR (2FT) (CRD DATUM)
- FEDERAL NAVIGATION CHANNEL
- HALF MILE BUFFER
- CONVERTER STATION
- KNOWN UTILITY CROSSING

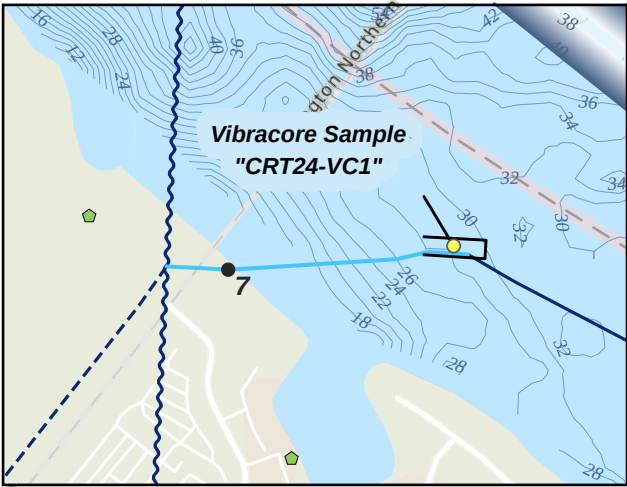
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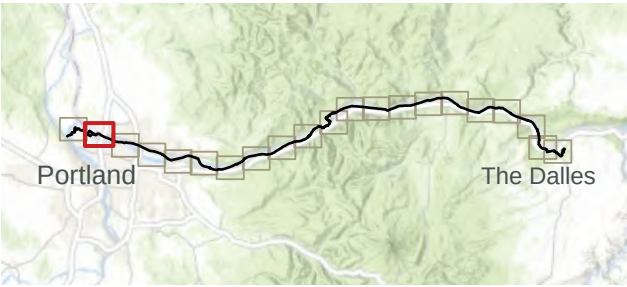


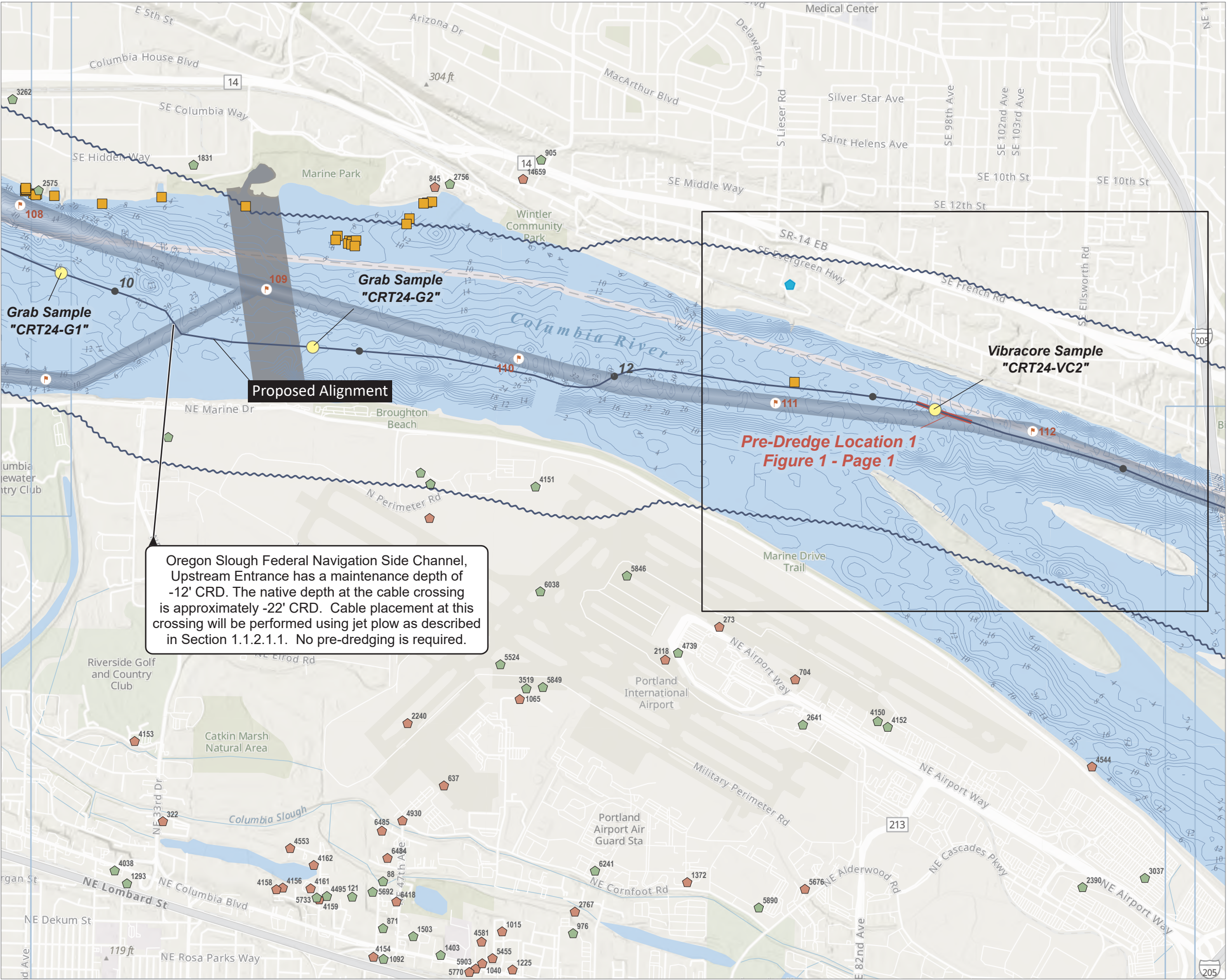
Map 2
Project Alignment
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- RIVER MILES (USACE)
- STATIONING (MILES)
- SEDIMENT SAMPLE LOCATION
- PREVIOUS SEDIMENT SAMPLES
- ENVIRONMENTAL CLEANUP SITE
 - NO FURTHER ACTION REQUIRED
 - OTHER
- PROPOSED ALIGNMENT
 - HDD
 - HYDROFLOW
 - UPLAND INSTALLATION (E.G., TRENCHING)
 - PRE-DREDGE LOCATION
 - BATHYMETRY CONTOUR (2FT) (CRD DATUM)
- FEDERAL NAVIGATION CHANNEL
- HALF MILE BUFFER
- KNOWN UTILITY CROSSING



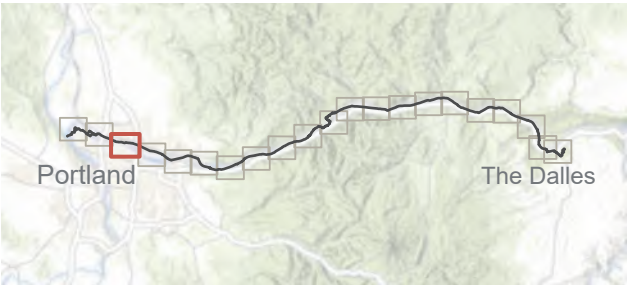
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- RIVER MILES (USACE)
- STATIONING (MILES)
- SEDIMENT SAMPLE LOCATION
- PREVIOUS SEDIMENT SAMPLES
- ENVIRONMENTAL CLEANUP SITE
 - NO FURTHER ACTION REQUIRED
 - OTHER
- PROPOSED ALIGNMENT
 - HDD
 - HYDROFLOW
 - UPLAND INSTALLATION (E.G., TRENCHING)
 - PRE-DREDGE LOCATION
- BATHYMETRIC CONTOUR (2FT) (BONNEVILLE POOL DEFINED AS +73.3 FT ABOVE NAVD88 DATUM)
- FEDERAL NAVIGATION CHANNEL
- HALF MILE BUFFER
- KNOWN UTILITY CROSSING

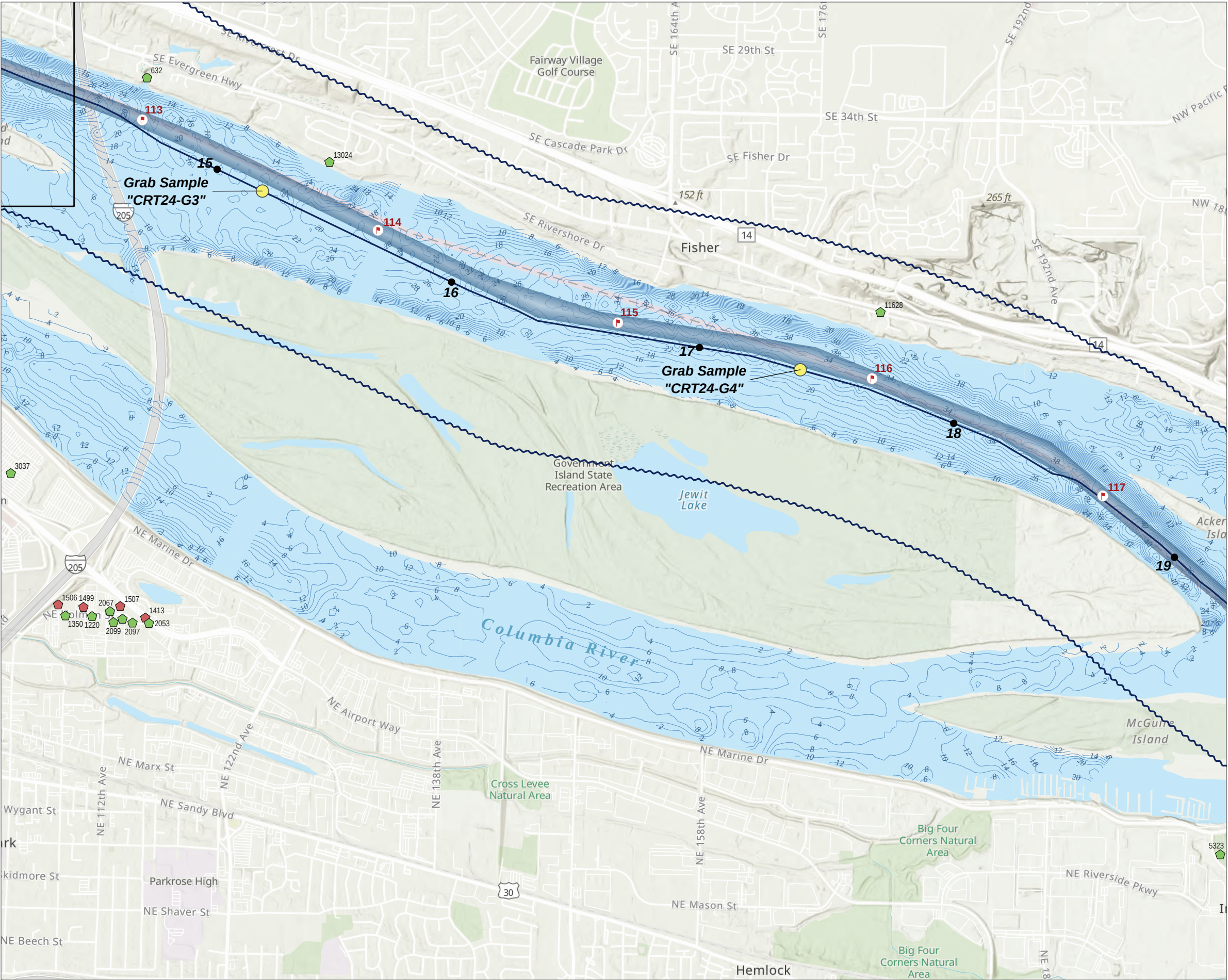
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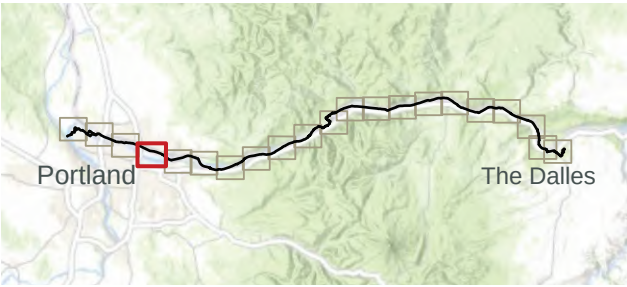
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Map 2
Project Alignment
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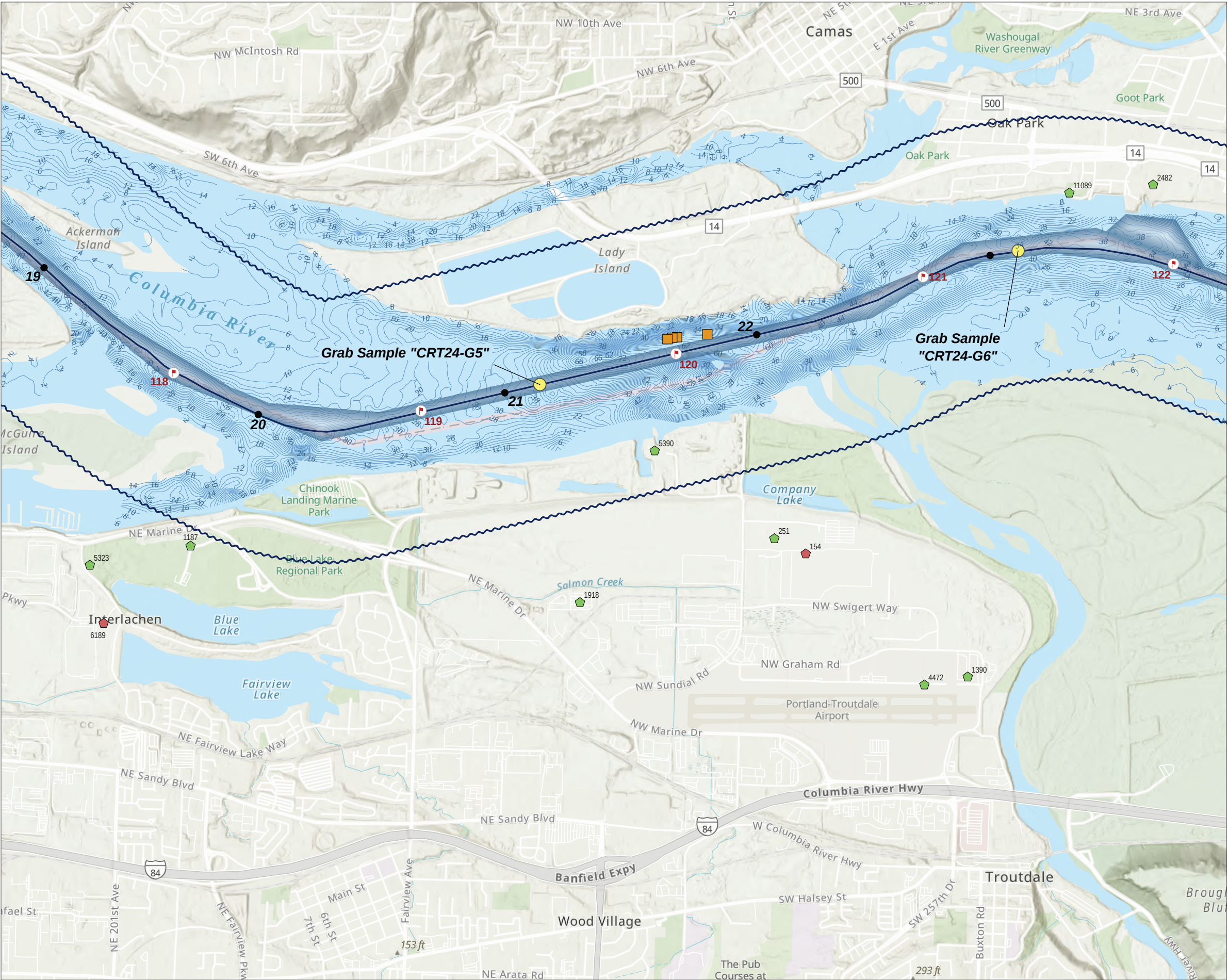
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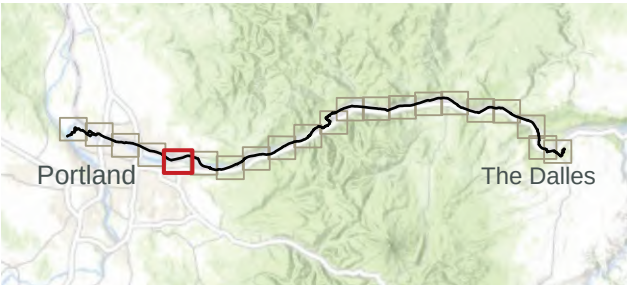


Map 2
Project Alignment
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- RIVER MILES (USACE)
- STATIONING (MILES)
- SEDIMENT SAMPLE LOCATION
- PREVIOUS SEDIMENT SAMPLES
- ENVIRONMENTAL CLEANUP SITE
 - NO FURTHER ACTION REQUIRED
 - OTHER
- PROPOSED ALIGNMENT
 - HDD
 - HYDROFLOW
 - UPLAND INSTALLATION (E.G., TRENCHING)
 - PRE-DREDGE LOCATION
 - BATHYMETRY CONTOUR (2FT) (CRD DATUM)
- FEDERAL NAVIGATION CHANNEL
- HALF MILE BUFFER
- KNOWN UTILITY CROSSING

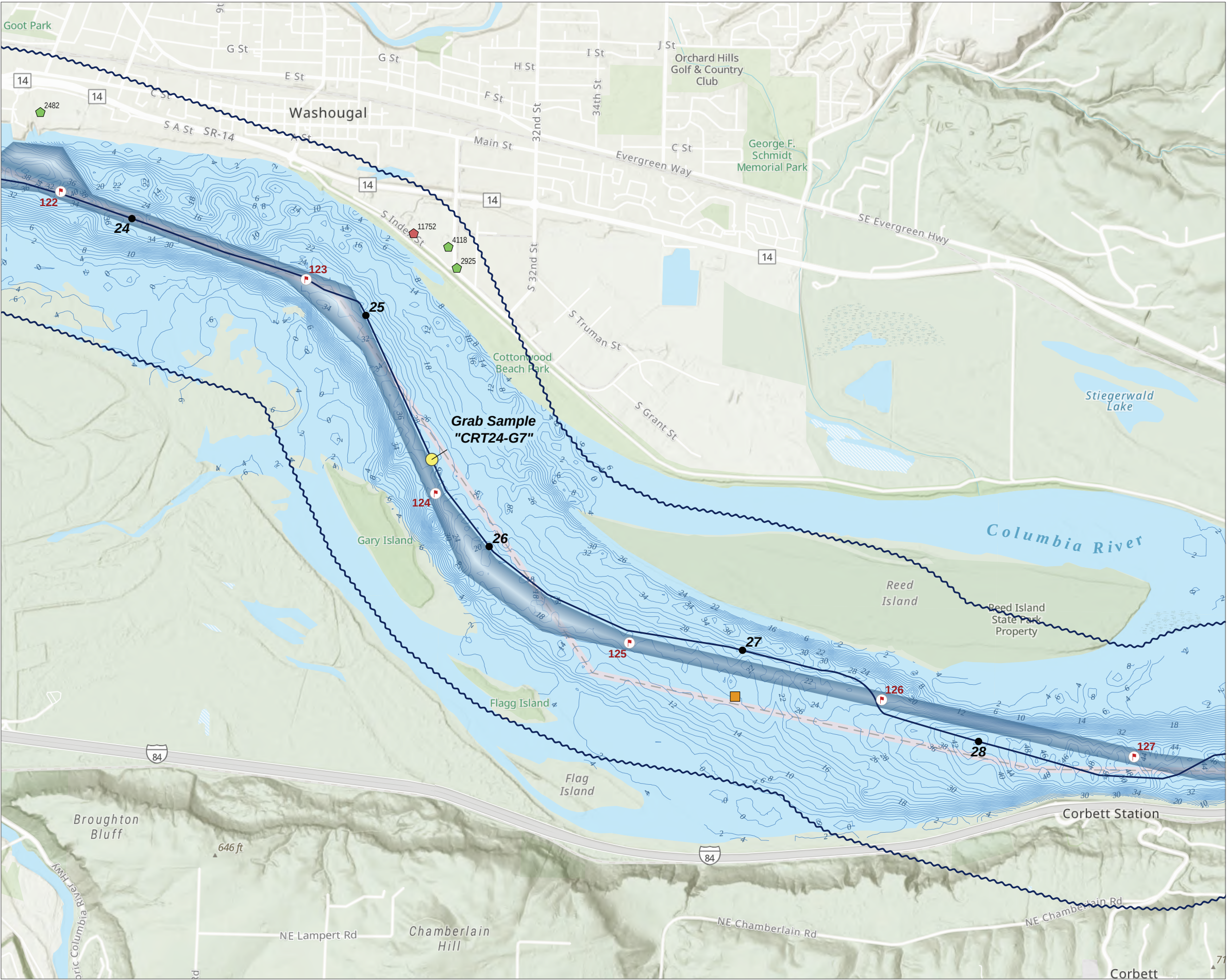
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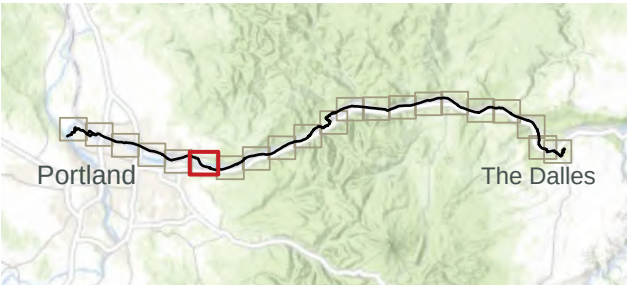


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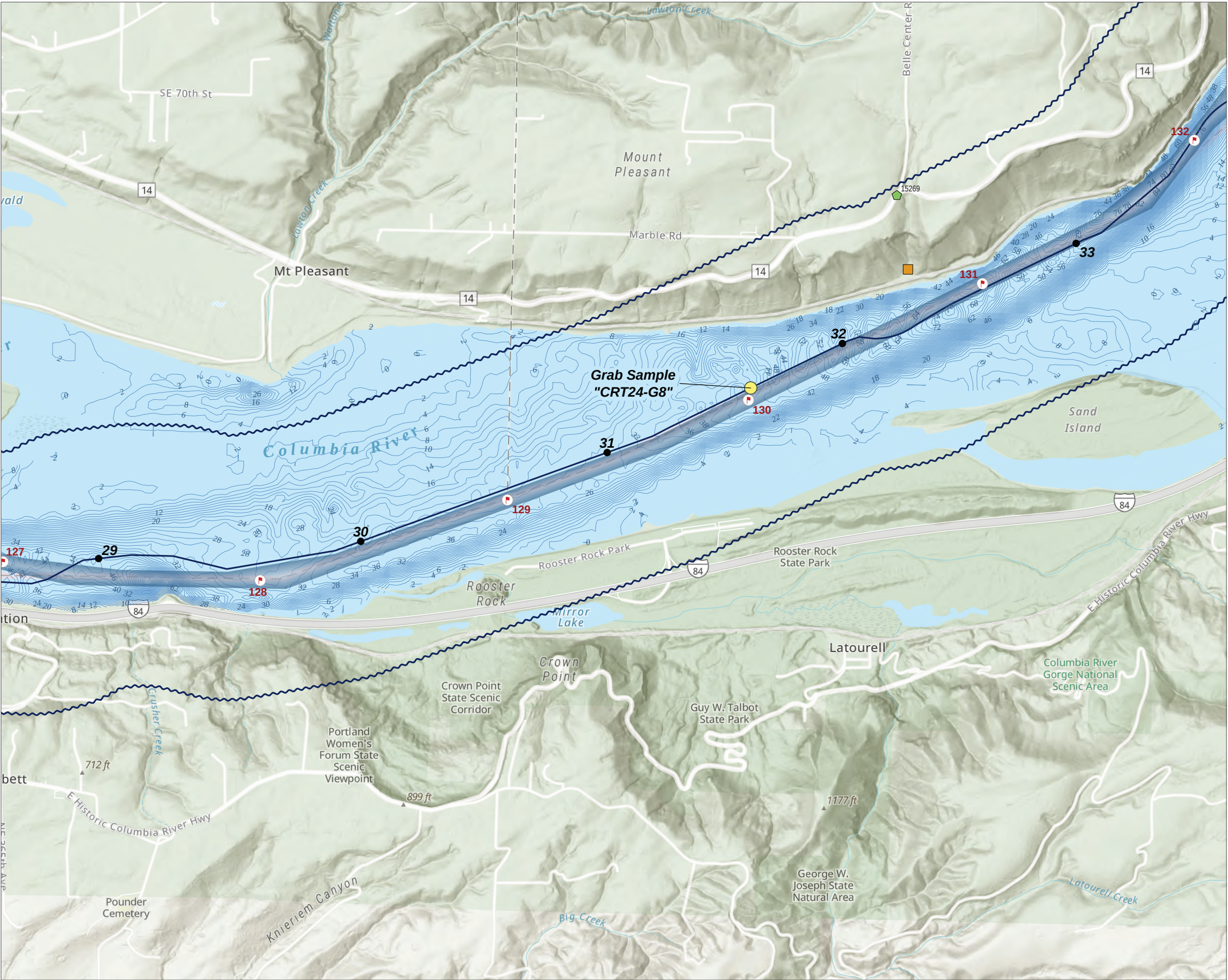


- RIVER MILES (USACE)
- STATIONING (MILES)
- SEDIMENT SAMPLE LOCATION
- PREVIOUS SEDIMENT SAMPLES
- ENVIRONMENTAL CLEANUP SITE
 - NO FURTHER ACTION REQUIRED
 - OTHER
- PROPOSED ALIGNMENT
 - HDD
 - HYDROFLOW
 - UPLAND INSTALLATION (E.G., TRENCHING)
 - PRE-DREDGE LOCATION
 - BATHYMETRY CONTOUR (2FT) (CRD DATUM)
- FEDERAL NAVIGATION CHANNEL
- HALF MILE BUFFER
- KNOWN UTILITY CROSSING

CASCADE RENEWABLE TRANSMISSION

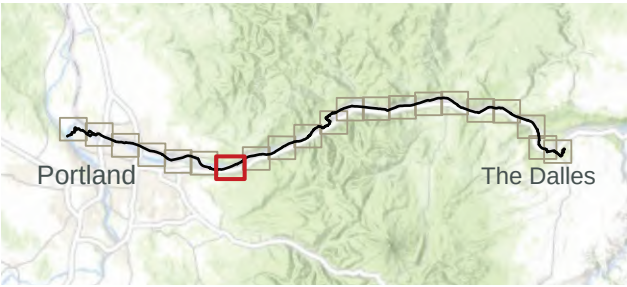


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- RIVER MILES (USACE)
- STATIONING (MILES)
- SEDIMENT SAMPLE LOCATION
- PREVIOUS SEDIMENT SAMPLES
- ENVIRONMENTAL CLEANUP SITE
 - NO FURTHER ACTION REQUIRED
 - OTHER
- PROPOSED ALIGNMENT
 - HDD
 - HYDROFLOW
 - UPLAND INSTALLATION (E.G., TRENCHING)
 - PRE-DREDGE LOCATION
 - BATHYMETRY CONTOUR (2FT) (CRD DATUM)
- FEDERAL NAVIGATION CHANNEL
- HALF MILE BUFFER
- KNOWN UTILITY CROSSING

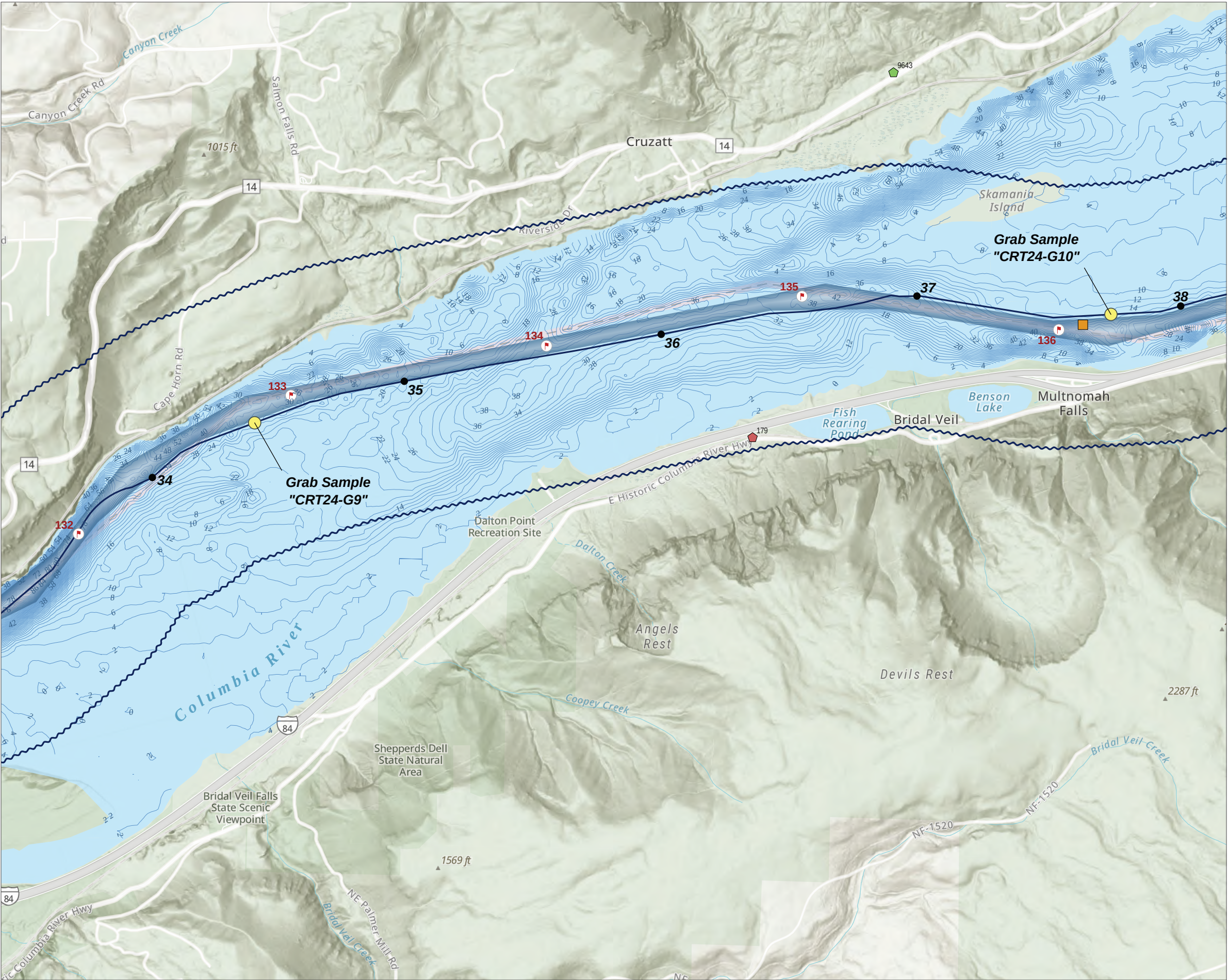
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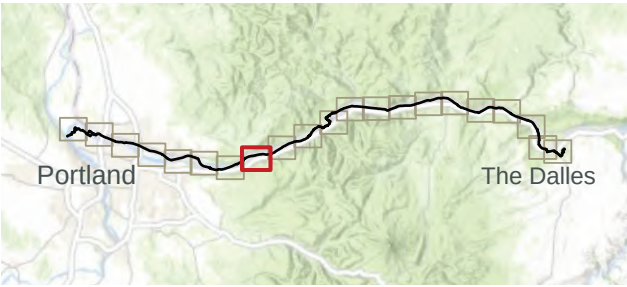


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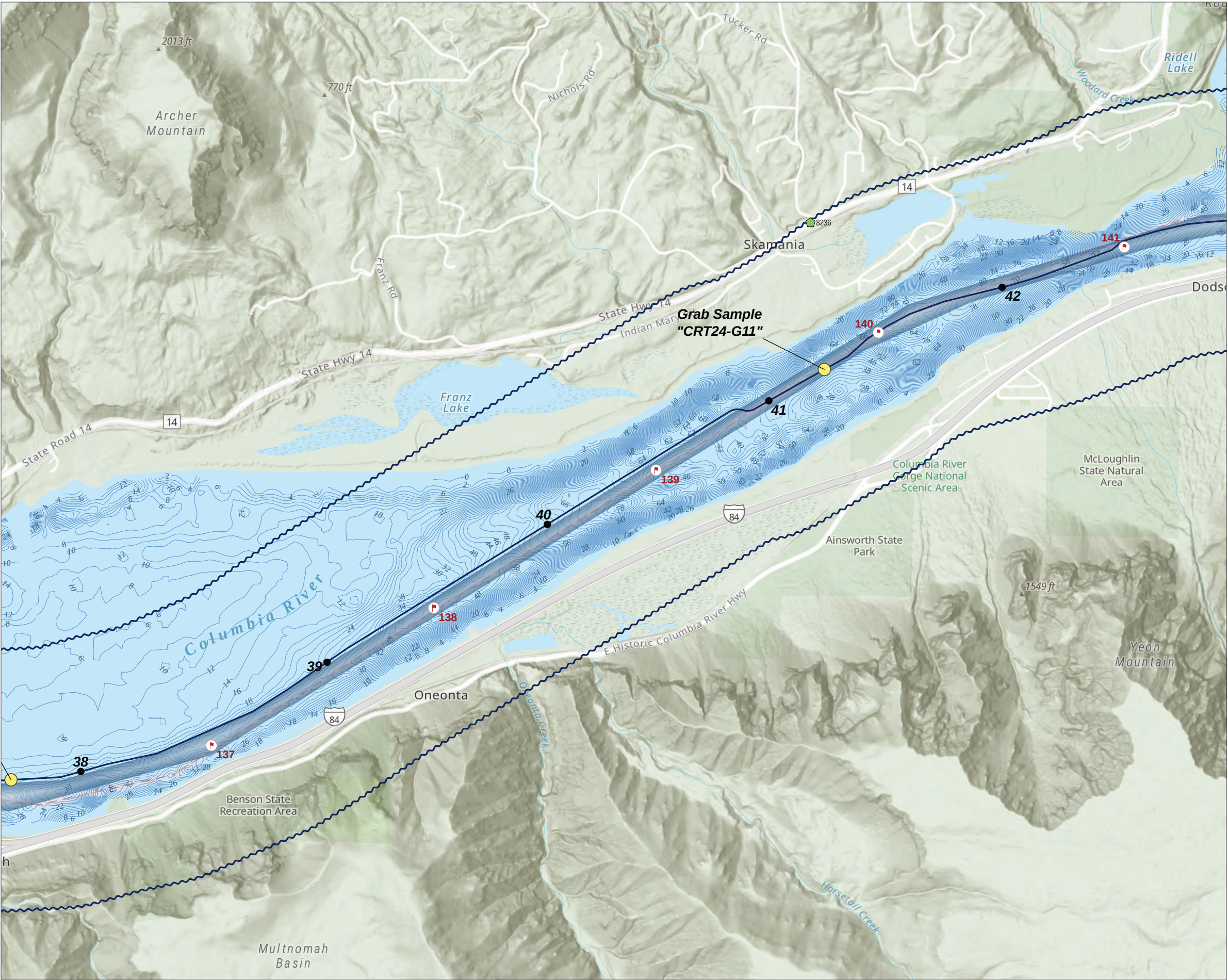


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- STATIONING (MILES)
- SEDIMENT SAMPLE LOCATION
- PREVIOUS SEDIMENT SAMPLES
- ENVIRONMENTAL CLEANUP SITE
 - NO FURTHER ACTION REQUIRED
 - OTHER
- PROPOSED ALIGNMENT
 - HDD
 - HYDROFLOW
 - UPLAND INSTALLATION (E.G., TRENCHING)
 - PRE-DREDGE LOCATION
 - BATHYMETRY CONTOUR (2FT) (CRD DATUM)
- FEDERAL NAVIGATION CHANNEL
- HALF MILE BUFFER
- KNOWN UTILITY CROSSING

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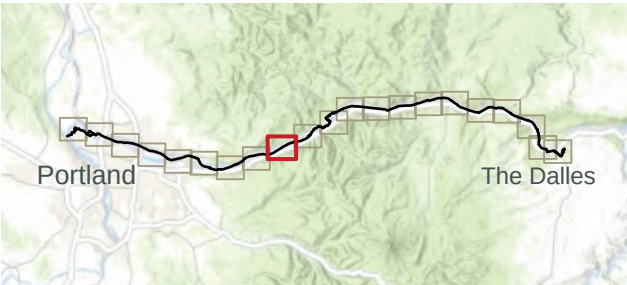


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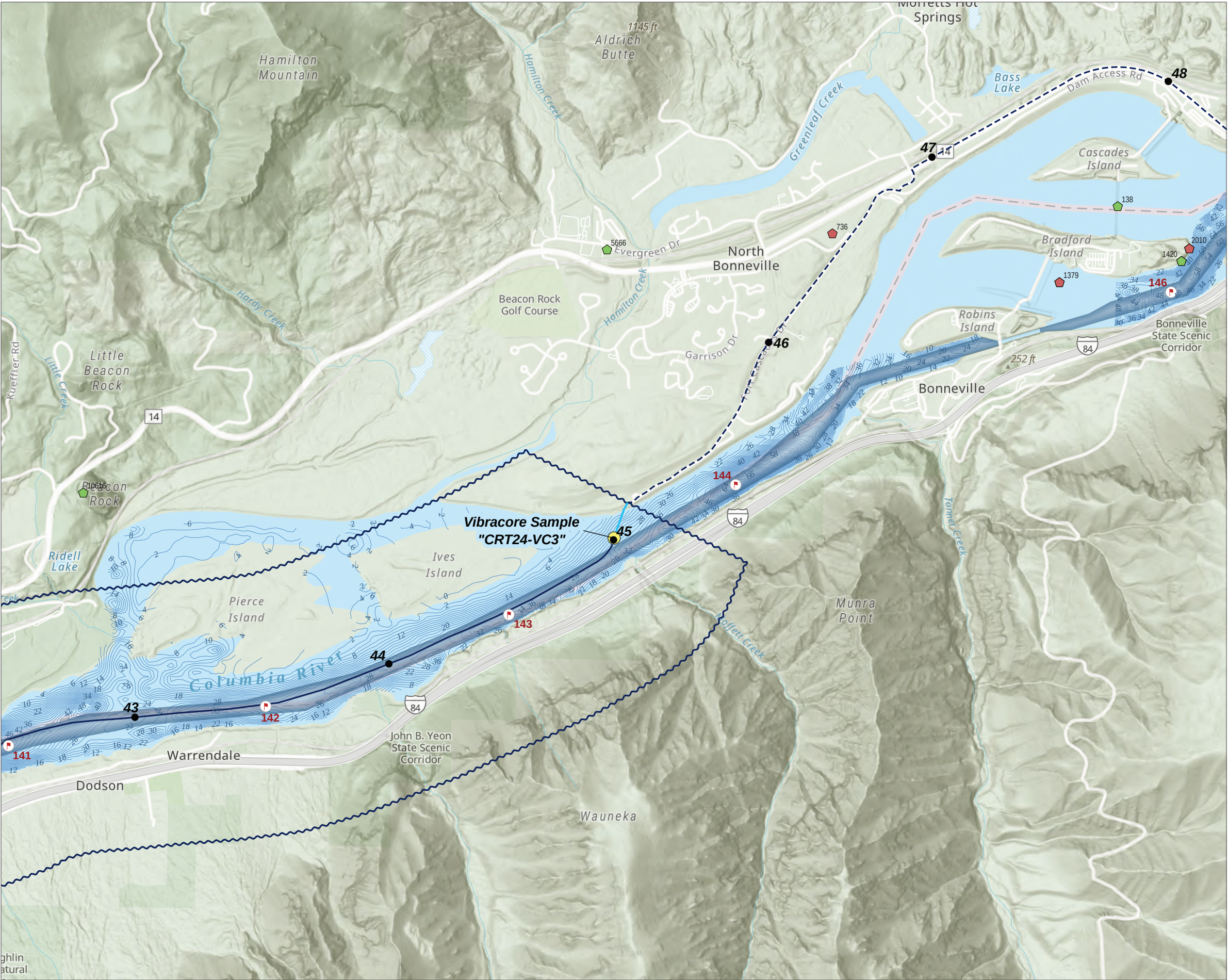


- RIVER MILES (USACE)
- STATIONING (MILES)
- SEDIMENT SAMPLE LOCATION
- ENVIRONMENTAL CLEANUP SITE
 - NO FURTHER ACTION REQUIRED
 - OTHER
- PROPOSED ALIGNMENT
 - HDD
 - HYDROFLOW
 - UPLAND INSTALLATION (E.G., TRENCHING)
 - PRE-DREDGE LOCATION
 - BATHYMETRY CONTOUR (2FT) (CRD DATUM)
- FEDERAL NAVIGATION CHANNEL
- HALF MILE BUFFER
- KNOWN UTILITY CROSSING

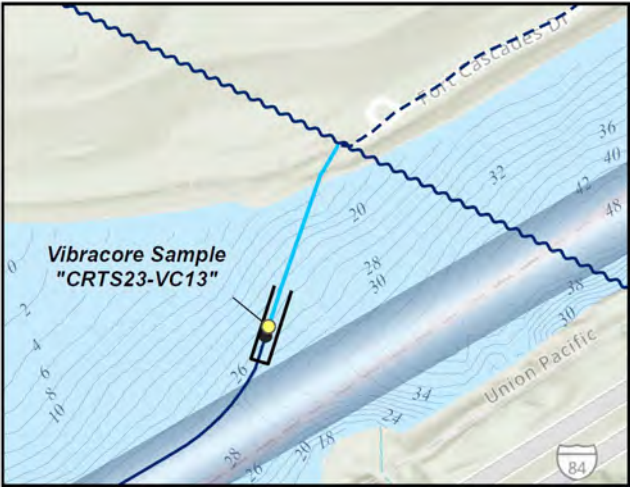
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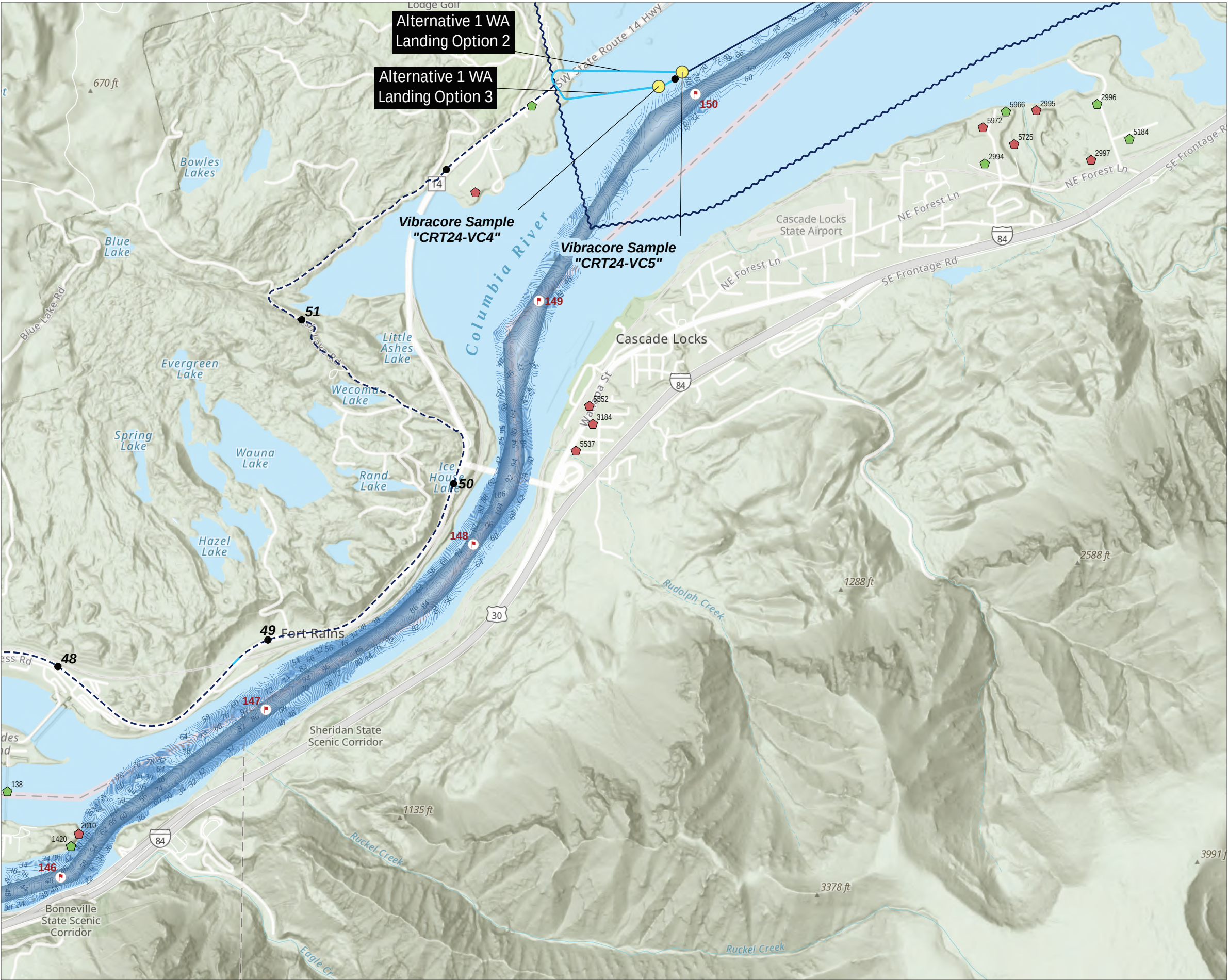


- RIVER MILES (USACE)
- STATIONING (MILES)
- SEDIMENT SAMPLE LOCATION
- ENVIRONMENTAL CLEANUP SITE
 - NO FURTHER ACTION REQUIRED
 - OTHER
- PROPOSED ALIGNMENT
 - HDD
 - HYDROFLOW
 - UPLAND INSTALLATION (E.G., TRENCHING)
 - PRE-DREDGE LOCATION
- BATHYMETRY CONTOUR (2FT) (CRD DATUM, BONNEVILLE POOL DEFINED AS +73.3 FT ABOVE NAVD88 DATUM)
- FEDERAL NAVIGATION CHANNEL
- HALF MILE BUFFER
- KNOWN UTILITY CROSSING

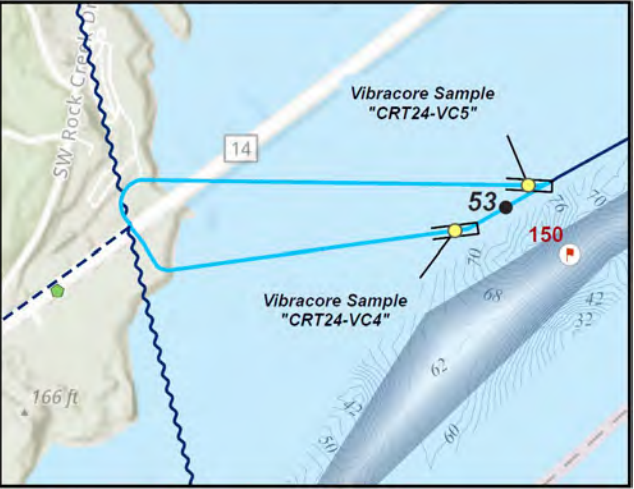


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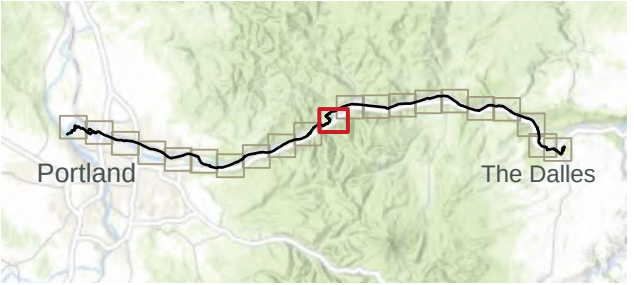




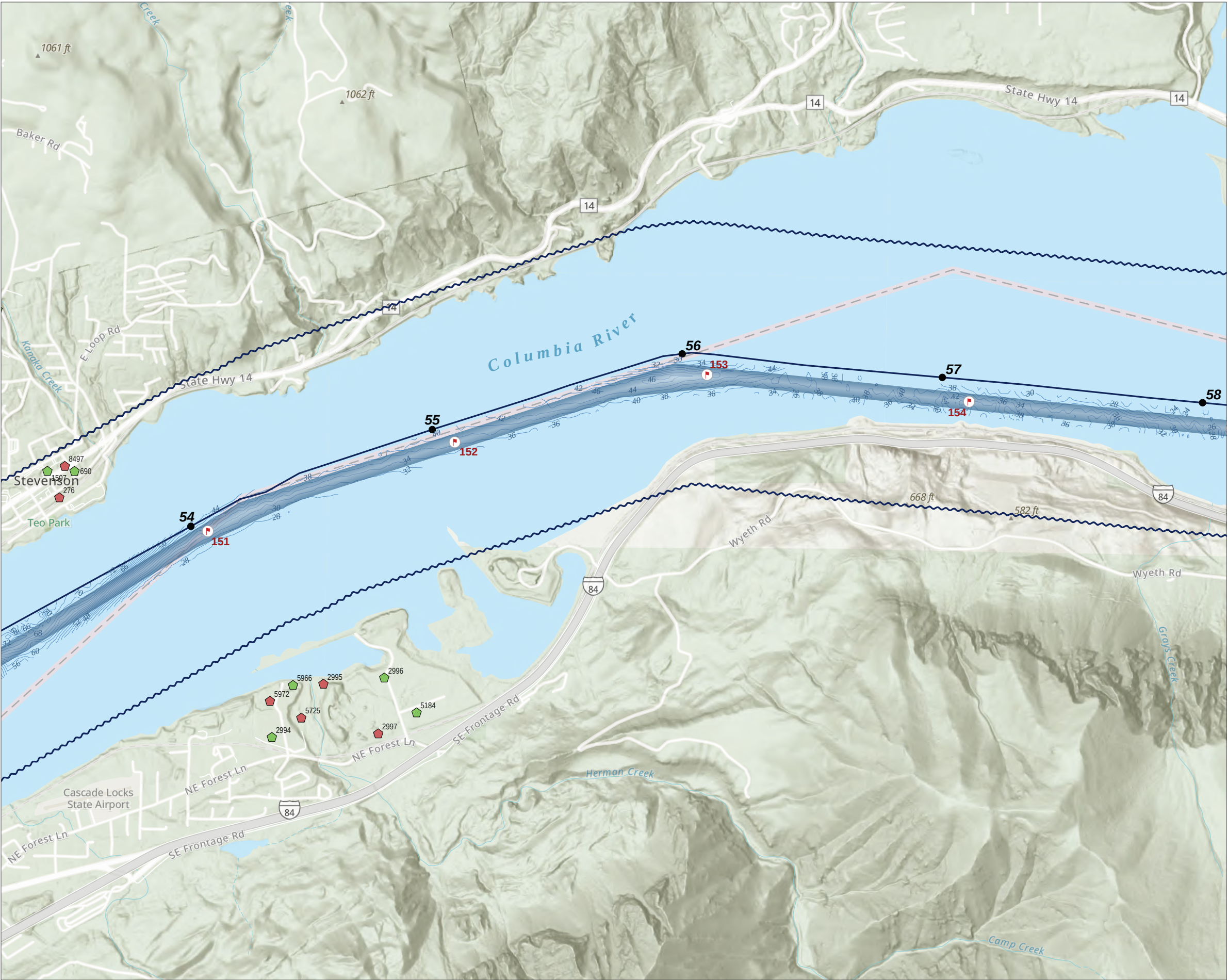
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- STATIONING (MILES)
- SEDIMENT SAMPLE LOCATION
- ENVIRONMENTAL CLEANUP SITE
 - NO FURTHER ACTION REQUIRED
 - OTHER
- PROPOSED ALIGNMENT
 - HDD
 - HYDROFLOW
 - UPLAND INSTALLATION (E.G., TRENCHING)
 - PRE-DREDGE LOCATION
- BATHYMETRY CONTOUR (2FT) (BONNEVILLE POOL DEFINED AS +73.3 FT ABOVE NAVD88 DATUM)
- FEDERAL NAVIGATION CHANNEL
- HALF MILE BUFFER
- KNOWN UTILITY CROSSING



CASCADE RENEWABLE TRANSMISSION

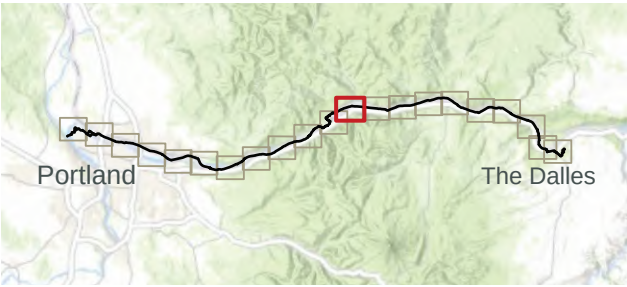


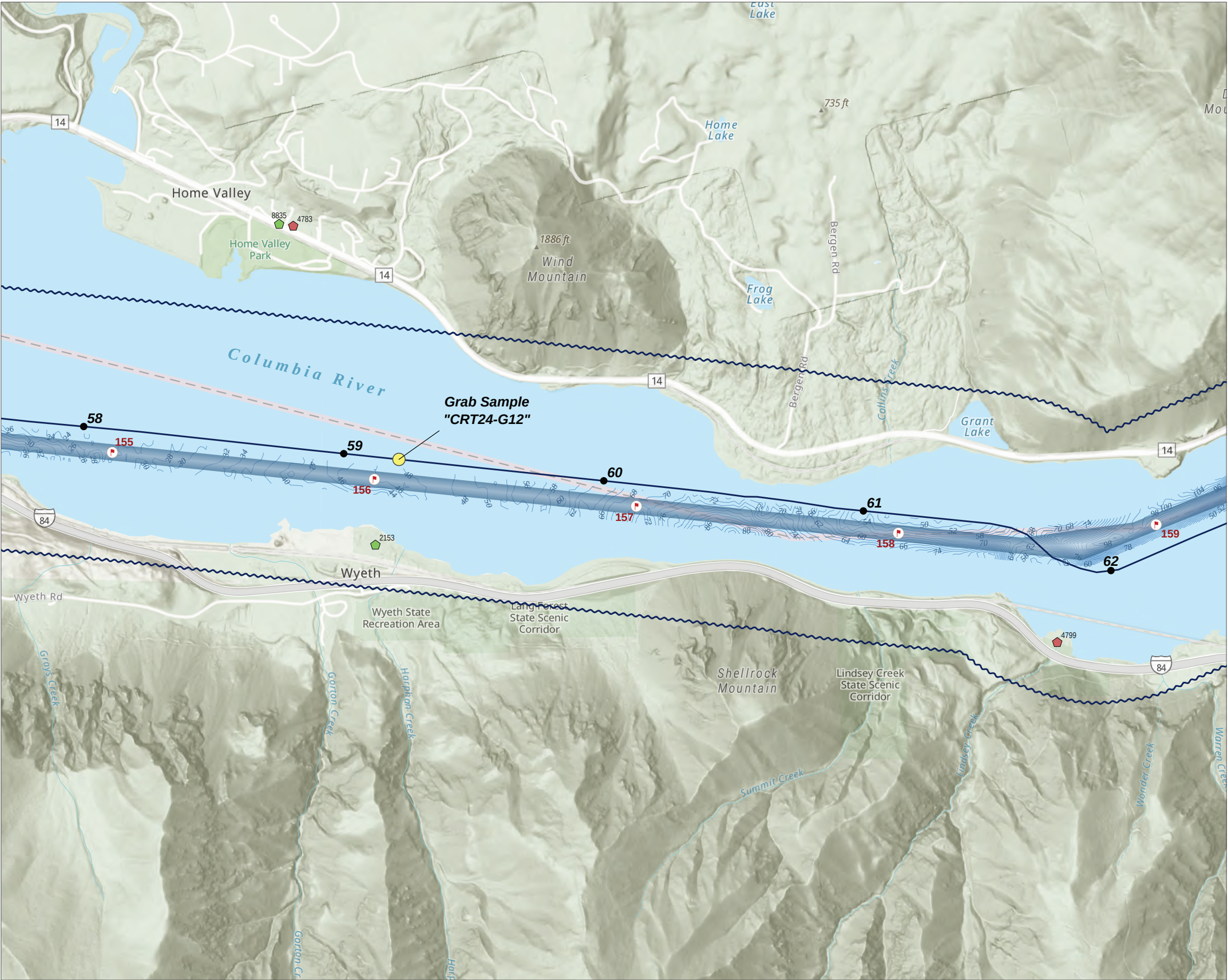
Map 2
Project Alignment
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- RIVER MILES (USACE)
- STATIONING (MILES)
- ENVIRONMENTAL CLEANUP SITE
 - NO FURTHER ACTION REQUIRED
 - OTHER
- PROPOSED ALIGNMENT
 - HDD
 - HYDROFLOW
 - UPLAND INSTALLATION (E.G., TRENCHING)
 - PRE-DREDGE LOCATION
 - BATHYMETRY CONTOUR (2FT) (BONNEVILLE POOL DEFINED AS +73.3 FT ABOVE NAVD88 DATUM)
 - FEDERAL NAVIGATION CHANNEL
 - HALF MILE BUFFER
 - KNOWN UTILITY CROSSING

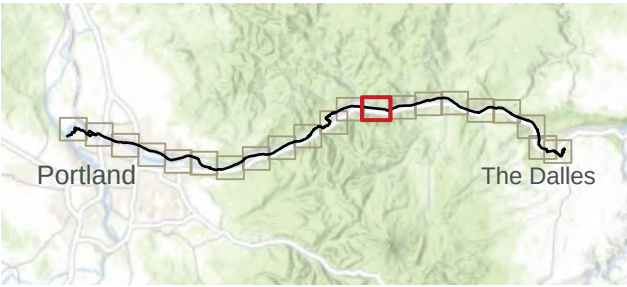
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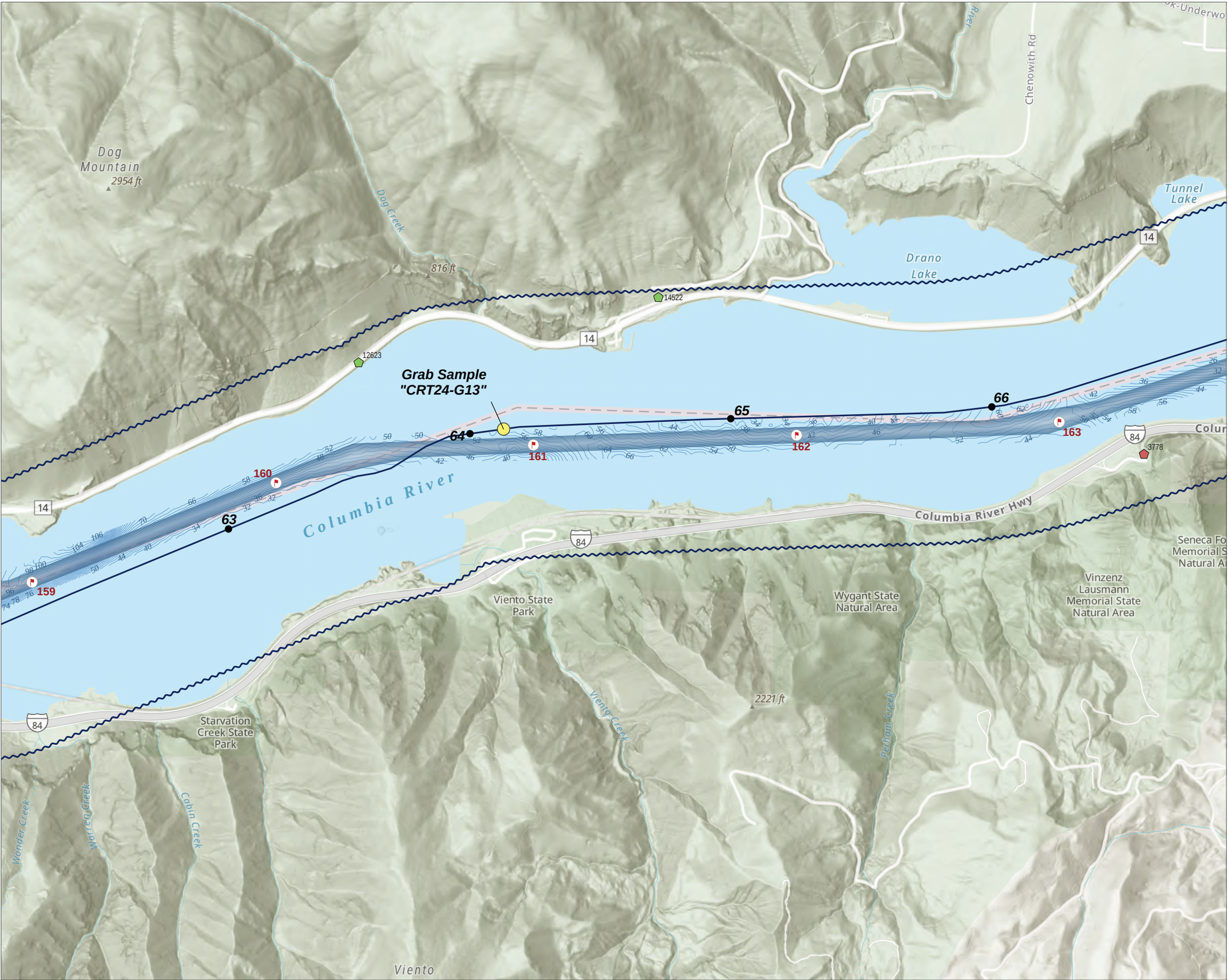


- RIVER MILES (USACE)
- STATIONING (MILES)
- SEDIMENT SAMPLE LOCATION
- ENVIRONMENTAL CLEANUP SITE
 - NO FURTHER ACTION REQUIRED
 - OTHER
- PROPOSED ALIGNMENT
 - HDD
 - HYDROFLOW
 - UPLAND INSTALLATION (E.G., TRENCHING)
 - PRE-DREDGE LOCATION
 - BATHYMETRY CONTOUR (2FT) (BONNEVILLE POOL DEFINED AS +73.3 FT ABOVE NAVD88 DATUM)
 - FEDERAL NAVIGATION CHANNEL
 - HALF MILE BUFFER
 - KNOWN UTILITY CROSSING

CASCADE RENEWABLE TRANSMISSION

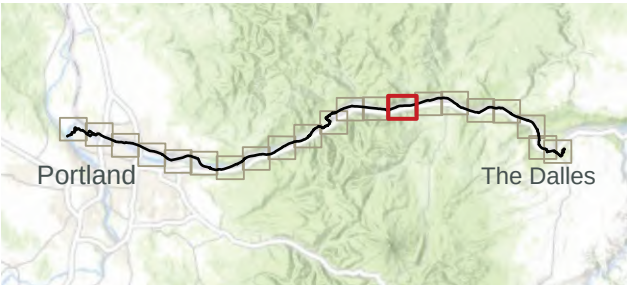


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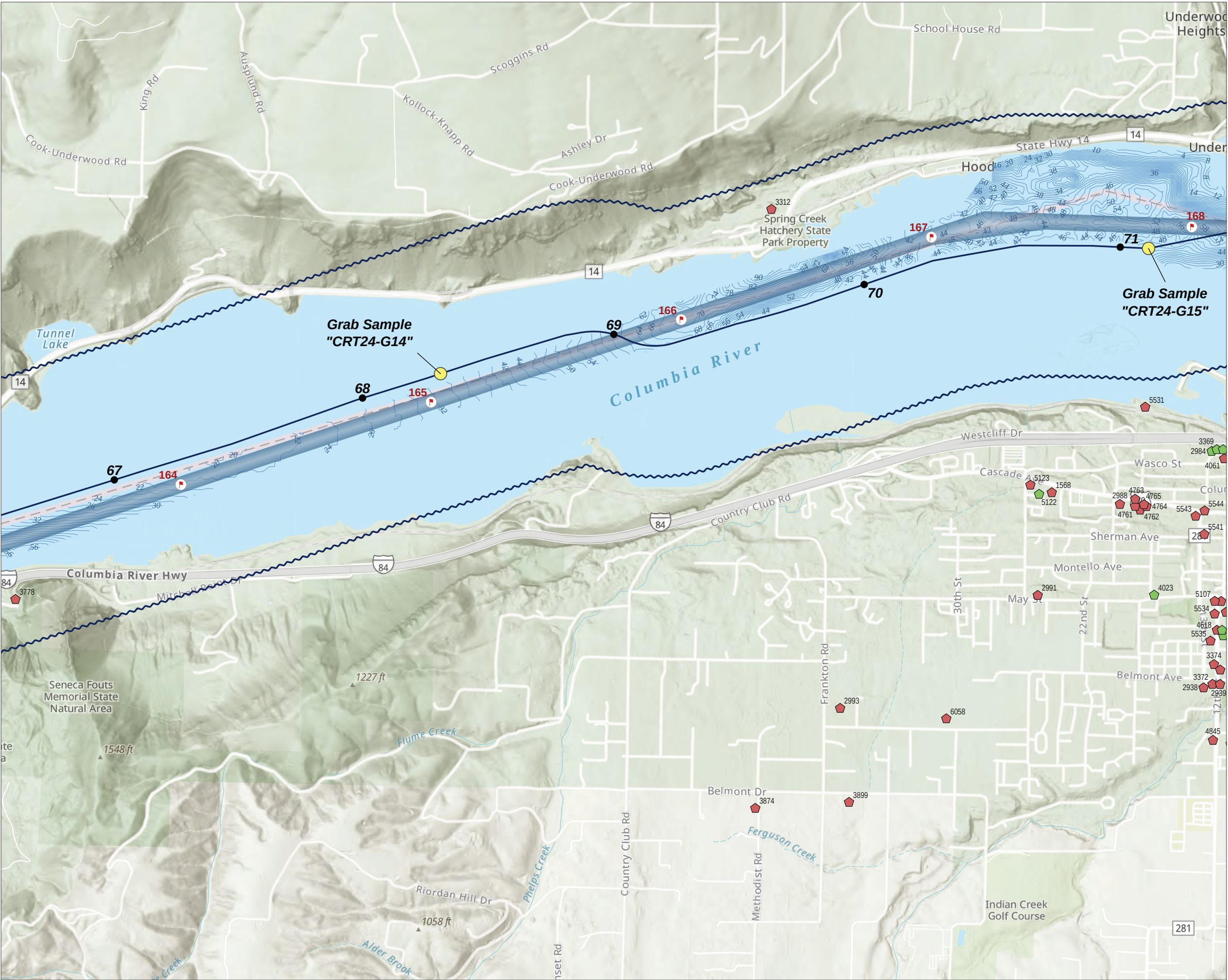


- RIVER MILES (USACE)
- STATIONING (MILES)
- SEDIMENT SAMPLE LOCATION
- ENVIRONMENTAL CLEANUP SITE
 - NO FURTHER ACTION REQUIRED
 - OTHER
- PROPOSED ALIGNMENT
 - HDD
 - HYDROFLOW
 - UPLAND INSTALLATION (E.G., TRENCHING)
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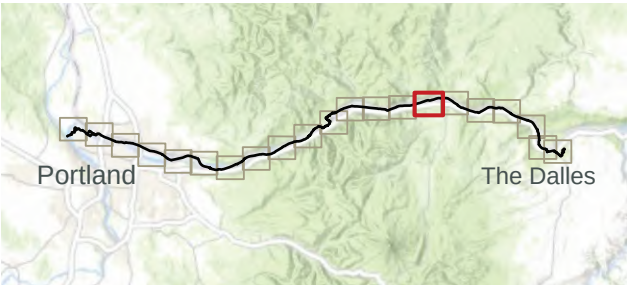


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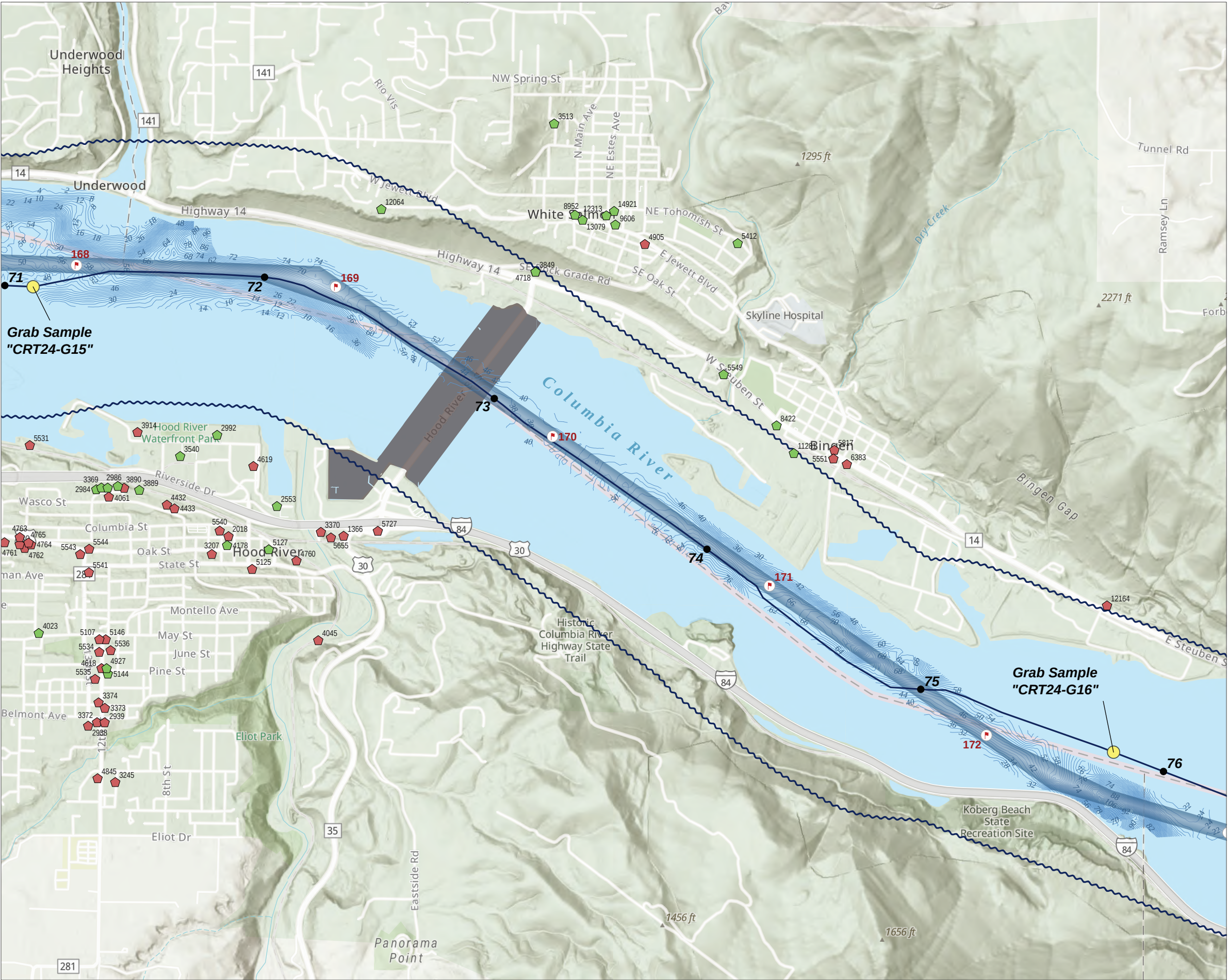


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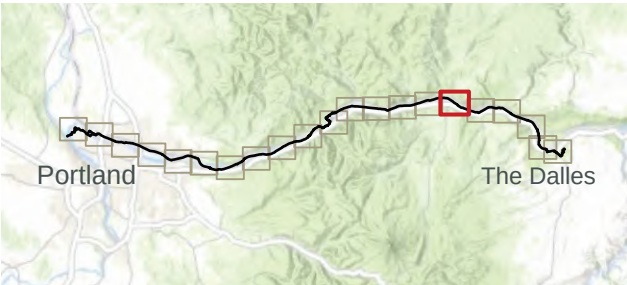


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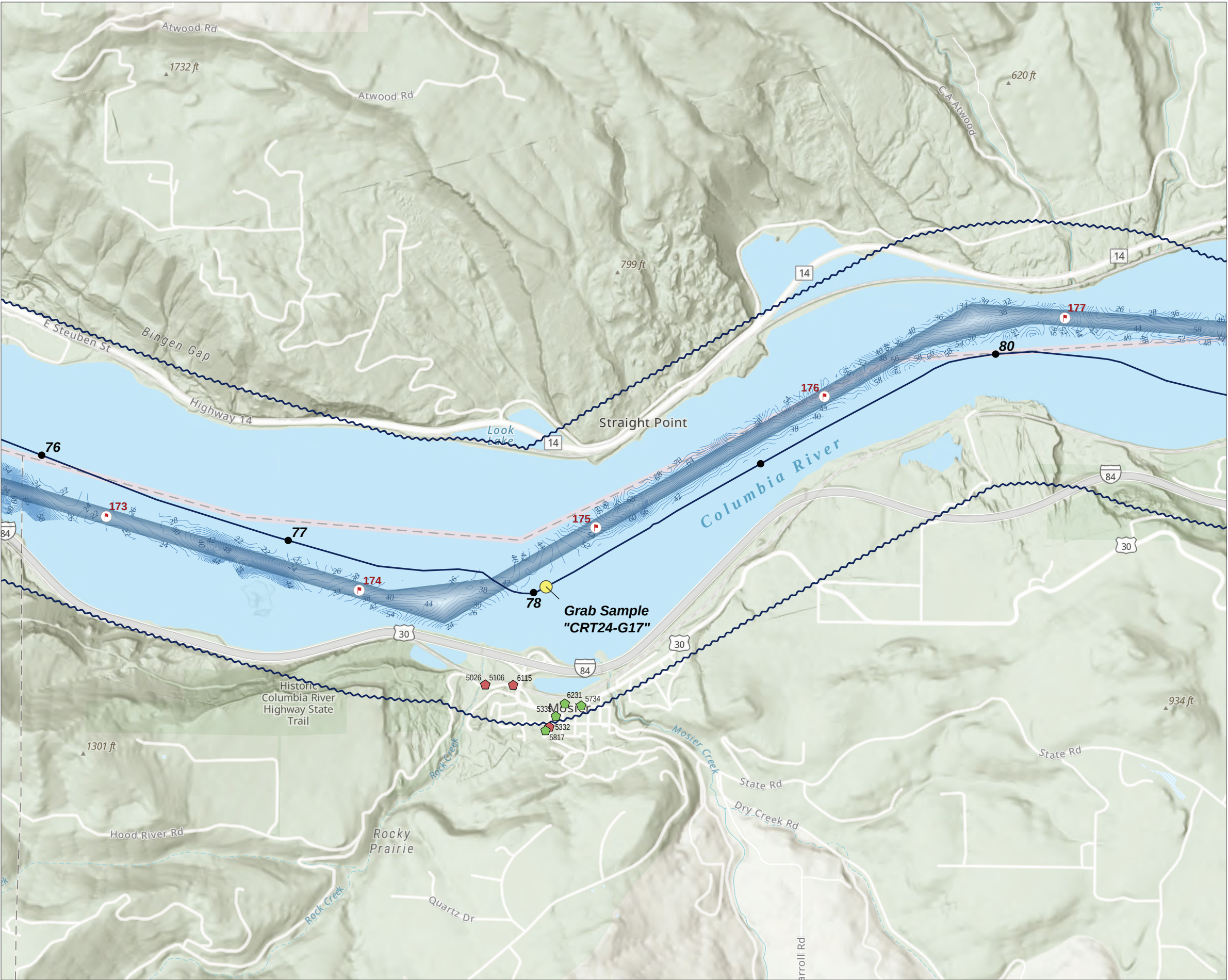


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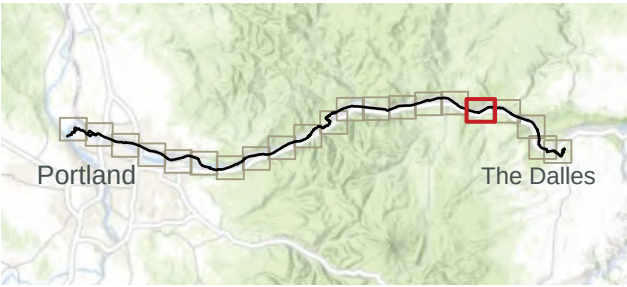


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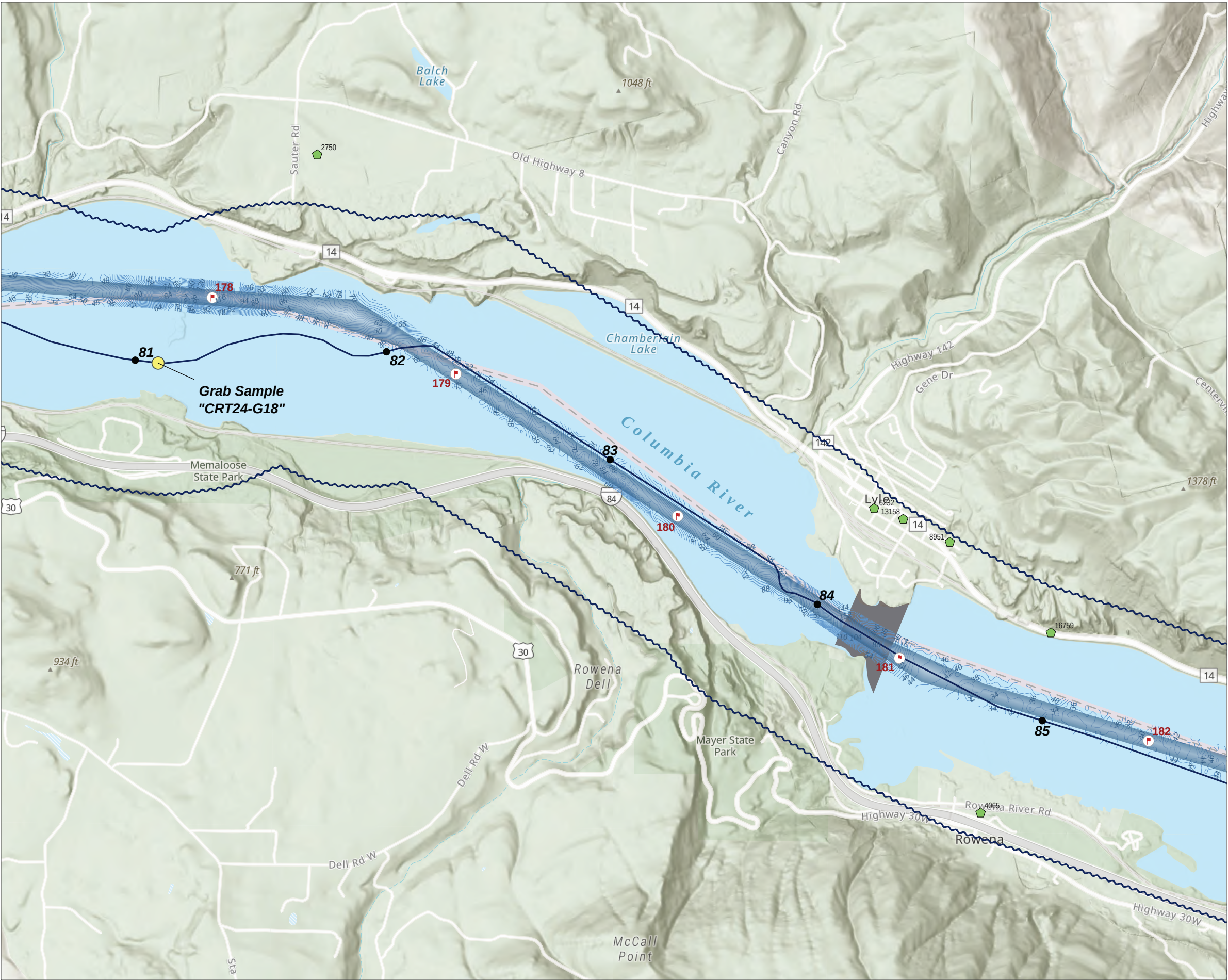


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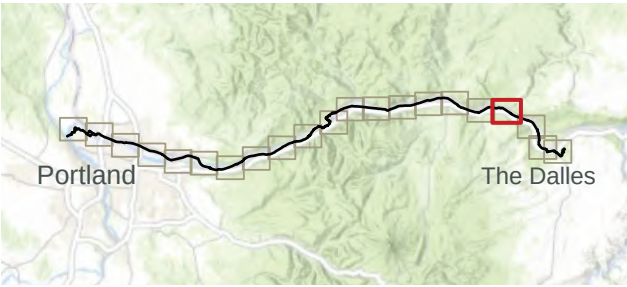


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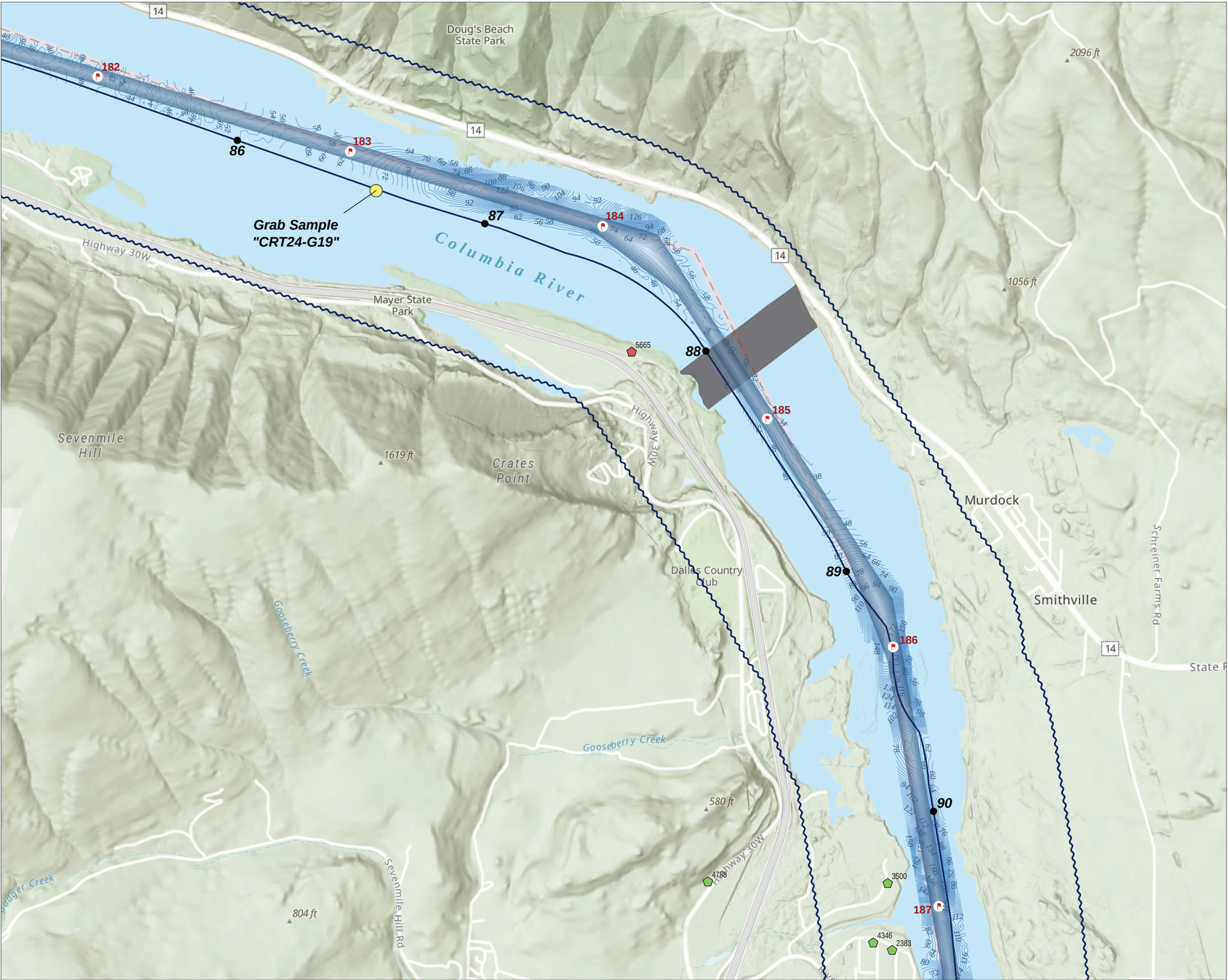


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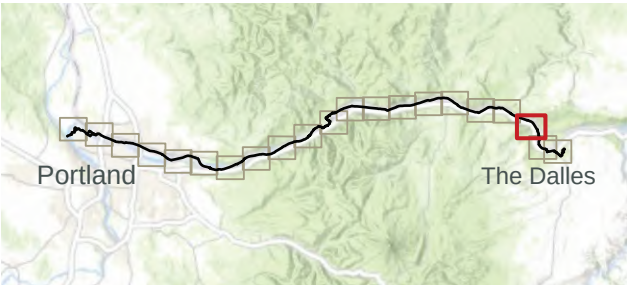


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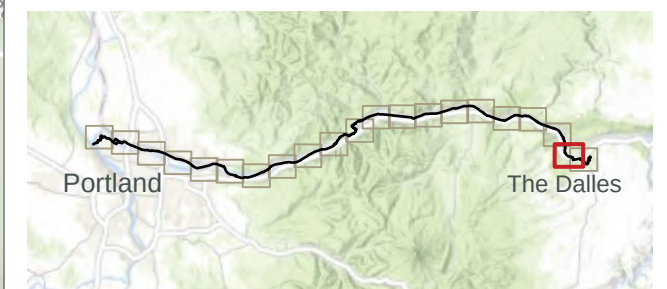


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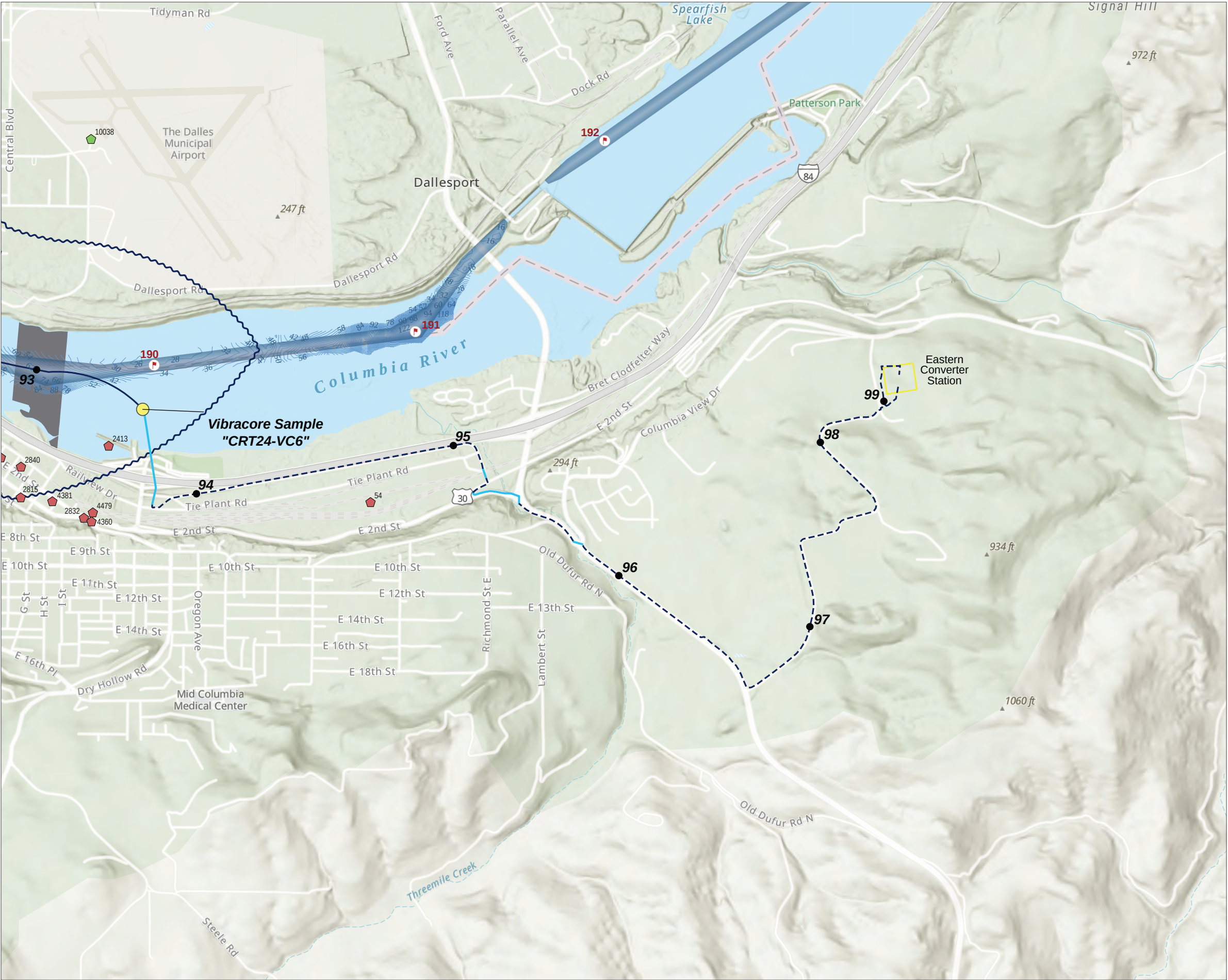
CASCADE RENEWABLE TRANSMISSION



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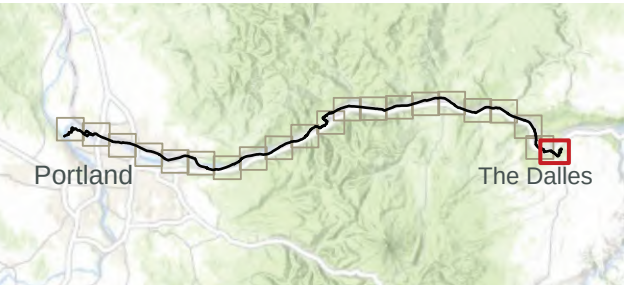
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CASCADE RENEWABLE TRANSMISSION



Attachments

Attachment A-1. Site History Information for the Cascade Renewable Transmission Project – Oregon

Attachment A-2. Site History Information for the Cascade Renewable Transmission Project – Washington

Attachment B-1. Cleanup Site Details for the Cascade Renewable Transmission Project – Oregon

Attachment B-2. Cleanup Site Details for the Cascade Renewable Transmission Project – Washington

Attachment C: Sample Identification for Previous Sediment Evaluation Locations

Attachment D: QA2 DATA REQUIREMENTS Chemical Variables; Organic Compounds and Metals

Attachment A

Site History Information for the Cascade Renewable Transmission Project

Attachment A-1. Site History Information for the Cascade Renewable Transmission Project – Oregon
Bold text indicates site is within 0.5 miles of proposed dredging activities. Individual site summary reports are provided in Attachment B-1.

Geolocation ID	Site ID	Site Name	Address	City Name	Zip Code	County	Status Code	Status	Latitude	Longitude
576	24	Harbor Oil Inc. (Former)	11535 N Force Ave.	Portland	97217	Multnomah	SUS	Closeout activities on completed project	45.6062	-122.6938
102264	72	Martin Marietta Reduction Fac. RCRA/CERCLA L'fill	3313 W 2nd St.	The Dalles	97058	Wasco	LIS	OPERATION & MAINTENANCE	45.6283	-121.205
39906	77	Hayden Island Dumping Area	West Hayden Island	Portland	97217	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.6227	-122.6961
3738	88	Nuway Oil Co.	7039 NE 46th Ave.	Portland	97218	Multnomah	LIS	No Further Action (Conditional)	45.5745	-122.6154
1313	121	The Halton Co.	4421 NE Columbia Blvd.	Portland	97218	Multnomah	NFA	No Further Action (Conditional)	45.5736	-122.6178
1148	127	James River Corp. - North Portland	3400 N Marine Dr.	Portland	97217	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.6119	-122.7022
8803	154	Reynolds Metals Co.	5100 NE Sundial Rd.	Troutdale	97060	Multnomah	LIS	OPERATION & MAINTENANCE	45.558	-122.4028
1220	165	Rhodia, Inc.	4429 N Suttle Rd.	Portland	97217	Multnomah	LIS	OPERATION & MAINTENANCE	45.6159	-122.7131
39914	179	UPRR - Columbia Gorge Right of Way	1N/5E/S13	Bridal Veil	97010	Multnomah	LIS	Site Confirmatory Sampling recommended	45.5755	-122.1425
1429	251	BPA - Troutdale Substation	5200 NE Sundial Rd.	Troutdale	97060	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5588	-122.4053
1862	273	Portland International Airport (PDX)	7000 NE Airport Way	Portland	97218	Multnomah	SUS	State Expanded Preliminary Assessment recommended (XPA)	45.5891	-122.5894
38613	322	Hoffman Industries	7636 NE 33rd Dr.	Portland	97211	Multnomah	SUS	Other remedial or investigative action recommended	45.5775	-122.6329
33442	325	Paulson Property	Union St. & 2nd Ave.	The Dalles	97058	Wasco	NFA	NO FURTHER STATE ACTION REQUIRED	45.6024	-121.1842
38610	637	Oregon National Guard - PDX Airport #1	Southwest portion of airport	Portland	97218	Multnomah	SUS	Independent Cleanup Program	45.5799	-122.6108
2871	673	Merit Oil/Fuel Processors	4150 N Suttle Rd	Portland	97217	Multnomah	LIS	OPERATION & MAINTENANCE	45.6135	-122.7111
553	704	Flightcraft	7505 NE Airport Way	Portland	97218	Multnomah	LIS	Closeout activities on completed project	45.5863	-122.5833
924	800	Morrison Oil Co.	3747 N Suttle Rd.	Portland	97217	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.6138	-122.7069
5116	871	AB Finishing Tech	6724 NE 46th Ave.	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5719	-122.6153
6061	872	Columbia Woodworking Co.	6432 NE Columbia Blvd.	Portland	97218	Multnomah	SUS	State Expanded Preliminary Assessment recommended (XPA)	45.5679	-122.5963
507	976	Portland-Willamette Co.	6800 NE 59th Pl.	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5719	-122.6003
15208	1015	Groundwater - NE 56th Ave. & Columbia Blvd.	5611 NE Columbia Blvd.	Portland	97218	Multnomah	LIS	Other remedial or investigative action recommended	45.5719	-122.6059
8941	1040	Miller Property	5421 NE Columbia Blvd.	Portland	97218	Multnomah	SUS	Site Screening recommended (EV)	45.5701	-122.6074
308	1065	Soil Contamination - NE Transport Way	5700 NE Transport Way	Portland	97218	Multnomah	LIS	State Basic Preliminary Assessment recommended (PA)	45.5848	-122.605
100433	1091	Oregon Waste Systems - Proposed Transfer Station	SW corner, N Marine Dr. and N Force Ave.	Portland	97217	Multnomah	LIS	State Basic Preliminary Assessment recommended (PA)	45.6086	-122.6926
7628	1092	Pierce Pacific Manufacturing	6540 NE 42nd Ave.	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5702	-122.6152
8936	1170	N Marine Dr. Extension - North Portland	N Marine Dr.	Portland	97217	Multnomah	SUS	State Basic Preliminary Assessment recommended (PA)	45.6152	-122.7083
8938	1181	Fernley Tire Fire	5411 NE Portland Hwy.	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5686	-122.6075
8753	1187	Multnomah County Parks - Blue Lake	20500 NE Marine Dr.	Fairview	97024	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5576	-122.4513
8935	1200	Lamm Property - Site 2	4065 N Suttle Rd.	Portland	97217	Multnomah	SUS	Site Confirmatory Sampling recommended	45.6141	-122.708
2748	1201	Lacamas Laboratories	12411 N Portland RD/3625 N Suttle Rd.	Portland	97217	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.6134	-122.7052
8951	1220	Oregon Fir Supply Co.	11100 NE Holman St.	Portland	97220	Multnomah	LIS	No Further Action (Conditional)	45.568	-122.5486
3781	1225	Coast Crane & Equipment (Former)	5601 NE Columbia Blvd.	Portland	97218	Multnomah	SUS	Long Term Care/Control recommended (OM)	45.5698	-122.605
8934	1230	Lamm Property - Site 1	4101 N Suttle Rd.	Portland	97217	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.6142	-122.7095
4981	1293	Tarr LLC PPA	2946 NE Columbia Blvd.	Portland	97211	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.574	-122.6356
5240	1313	Paramount Pest Control Inc.	5207 NE Portland Hwy.	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5688	-122.609
4374	1350	DeWitt Construction	10910 NE Holman St.	Portland	97220	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.568	-122.5507
8245	1366	Carson Oil Bulk Plant - Hood River	2660 Dock Rd.	Hood River	97031	Hood river	SUS	State Expanded Preliminary Assessment recommended (XPA)	45.7098	-121.5047
8942	1372	Oregon Air National Guard Base	6801 NE Cornfoot Dr.	Portland	97218	Multnomah	LIS	REMEDIAL INVESTIGATION	45.5749	-122.5914

8740	1379	US Army COE - Bonneville Dam	I-84 (N of Exit 40)	Bonneville		Multnomah	SUS	Site Screening recommended (EV)	45.6402	-121.9452
1400	1390	US Army COE - N Pacific Div. Materials Lab	1491 NW Graham Rd.	Troutdale	97060	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5514	-122.3898
8939	1403	Hertz Equipment Rental Facility	4939 NE Columbia Blvd.	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5705	-122.6107
38607	1413	Holman Area Groundwater Contamination	Bounded by Sandy Blvd./I-205/Marine Dr./NE 122nd Ave.	Portland	97220	Multnomah	SUS	Closeout activities on completed project	45.568	-122.5444
40165	1420	US Army COE - BNM Upstream Laydown Area	Bonneville Lock & Dam	Bonneville		Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.6415	-121.9356
8947	1499	Holman Redevelopment Area - Parcel 245	11003 NE Holman St.	Portland	97220	Multnomah	SUS	Site Confirmatory Sampling recommended	45.5685	-122.5493
1065	1503	Halton Voith	6654 NE 47th Ave.	Portland	97218	Multnomah	NFA	No Further Action (Conditional)	45.5715	-122.6129
38618	1505	Peninsula Terminal RR	11707 N Force Ave.	Portland	97217	Multnomah	LIS	No Further Action (Conditional)	45.6076	-122.6937
1728	1506	Thrifty Car Rental/HRA Parcel 249	10835 NE Holman St.	Portland	97220	Multnomah	SUS	Site Investigation recommended (SI)	45.5686	-122.5513
8946	1507	B & B Metal Inc.	11309 NE Holman St.	Portland	97220	Multnomah	SUS	Other remedial or investigative action recommended	45.5686	-122.5464
2298	1559	Hayden Island Landfill	North parts of Hayden Island, west of I-5	Portland	97217	Multnomah	LIS	Site Investigation recommended (SI)	45.6137	-122.6802
40210	1560	Mt. Hood National Forest - Borrow Pit	Forest Road 1509	Bridal Veil	97010	Multnomah	LIS	Remedial Action recommended (RA)	45.5199	-122.1194
40211	1561	Mt. Hood National Forest - Site B	Forest Road 1509	Bridal Veil	97010	Multnomah	LIS	Remedial Action recommended (RA)	45.5061	-122.1119
8758	1568	Murray Wrecking Yard	2579 Cascade Ave.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7098	-121.5369
40377	1832	Portland Int'l Airport fuel pipeline	(near) 7000 NE Airport Way	Portland	97211	Multnomah	LIS	No Further Action (Conditional)	45.5966	-122.6125
30709	1865	Hayden Island Cleaners	1190 N Jantzen Dr.	Portland	97217	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.609	-122.6789
40448	1918	RMAC International Inc.	3601 NW Marine Dr.	Troutdale	97060	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.555	-122.4205
40516	2010	US Army COE - Bradford Island Landfill	Bonneville Lock & Dam	Bonneville		Multnomah	LIS	REMEDIAL INVESTIGATION	45.6422	-121.935
40522	2018	Cascade Ave. Urban Renewal Project	Cascade Ave., between 3rd & 4th Sts.	Hood River	97031	Hood river	LIS	Further Investigation of Area Facilities recommended	45.7097	-121.5138
40551	2053	Taylor Property	SE Corner of NE Airport Way and NE Holman St.	Portland	97220	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5677	-122.5441
40557	2067	McClaskey Property/ICN	NE Holman St. at intersection of NE 112th Ave.	Portland	97220	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5683	-122.5472
38614	2097	Holman Redevelopment Area - Parcel 236	South side of NE Holman St. abutting Airport Way	Portland	97220	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5677	-122.5454
98168	2098	Holman Redevelopment Area - Parcel 237	11300 block of NE Holman St.	Portland	97220	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5679	-122.5462
38615	2099	Holman Redevelopment Area - Parcel 238	6154 NE 112th Ave.	Portland	97220	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5677	-122.5469
40591	2118	Port of Portland - Terminal Expansion South	7000 NE Airport Way - Portland International Airport	Portland	97218	Multnomah	LIS	PRELIMINARY ASSESSMENT EQUIVALENT	45.5872	-122.5936
40611	2139	Suspected Buried Munitions Site - Port of Portland	NE Marine DR & NE 33rd Dr.	Portland	97211	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5988	-122.6333
40622	2153	Wyeth Tie-Treating Plant (Former)	I-84 Milepost 51 (vicinity of)	Wyeth		Hood river	LIS	No Further Action (Conditional)	45.6933	-121.7681
33700	2214	Matson Terminals - Portland Road	12001 N Portland Rd.	Portland	97203	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.6026	-122.7174
40673	2215	Cadet Manufacturing (Former)	Near 6225 NE 105th Ave. (no actual site address)	Portland	97220	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5678	-122.5561
40693	2240	Aircraft Service International, Taxiway F Area	Portland International Airport	Portland	97218	Multnomah	NFA	Site Investigation recommended (SI)	45.5833	-122.6138
40787	2383	The Dalles Dredge Disposal Site	River RD & Crates WAY (north of)	The Dalles	97058	Wasco	NFA	NO FURTHER STATE ACTION REQUIRED	45.6327	-121.2004
40794	2390	Cascade Station Development Area	S of Airport Way between I-205 and NE 82nd Ave.	Portland	97220	Multnomah	LIS	No Further Action (Conditional)	45.5752	-122.5602
40808	2413	The Dalles Marina	Boat Basin Rd.	The Dalles	97058	Wasco	SUS	Site Screening recommended (EV)	45.6015	-121.1718
32809	2518	Sauter's Truck Service	1002 W Hostetler ST	The Dalles	97058	Wasco	NFA	NO FURTHER STATE ACTION REQUIRED	45.6229	-121.2227
40894	2553	Nichols Boat Works Co.	1 Nichols Parkway	Hood River	97031	Hood river	LIS	No Further Action (Conditional)	45.7114	-121.51
40377	2634	ASIG Jet Fuel Transmission Line	Located in NW corner of PDX airport grounds	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5966	-122.6125
43697	2641	Portland Maintenance Facility - Lube Oil AST Line	7111 NE Alderwood Rd.	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5838	-122.5826
91876	2767	Portland Willamette Co. - Slough Sediments	6800 NE 59th Pl. (upland source)	Portland	97218	Multnomah	SUS	REMEDIAL ACTION	45.5731	-122.6002
10843	2786	Don's Dry Cleaners & Laundry	412 Washington St.	The Dalles	97058	Wasco	SUS	Site Screening recommended (EV)	45.6001	-121.1826
41078	2815	Don's Dry Cleaners & Laundry (Former)	620 E 3rd St.	The Dalles	97058	Wasco	SUS	Site Screening recommended (EV)	45.5986	-121.1787
41089	2832	Booth Oil - The Dalles	820 E 3rd St.	The Dalles	97058	Wasco	SUS	Site Screening recommended (EV)	45.5975	-121.1737
22314	2833	Smith Oil - The Dalles	3020 W 2nd St.	The Dalles	97058	Wasco	SUS	Site Screening recommended (EV)	45.6209	-121.2109

41092	2836	Walker Cleaners (Former)	314(1/2) E 9th St.	The Dalles	97058	Wasco	SUS	Site Screening recommended (EV)	45.5974	-121.1847
19598	2838	Humble Oil Bulk Plant (Former)	2812 W 2nd St.	The Dalles	97058	Wasco	SUS	Refer to Program	45.6187	-121.2096
41096	2840	Bowden Heating Oil (Former)	208 Laughlin St.	The Dalles	97058	Wasco	SUS	Site Screening recommended (EV)	45.6003	-121.1787
41100	2844	Walker Cleaners - E 3rd St. (Former)	214 E 3rd St.	The Dalles	97058	Wasco	SUS	Site Screening recommended (EV)	45.6009	-121.182
41164	2938	Mid-Columbia Dry Cleaners	1313 Belmont Dr.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.6991	-121.5247
2356	2939	12th St. Laundromat & Dry Cleaning	1503 12th St.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.6993	-121.5234
41197	2984	Atlantic-Richfield Bulk Plant - Hood River	1218 W Industrial ST	Hood River	97031	Hood river	NFA	NO FURTHER STATE ACTION REQUIRED	45.7122	-121.5243
16493	2985	Unocal Bulk Plant No. 307838 (Former) - Hood River	1200 W Industrial ST	Hood River	97031	Hood river	NFA	NO FURTHER STATE ACTION REQUIRED	45.7123	-121.5234
19272	2986	Shell Oil Bulk Plant (Former) - Hood River	1016 W Industrial ST	Hood River	97031	Hood river	NFA	NO FURTHER STATE ACTION REQUIRED	45.7124	-121.5226
41198	2988	Westside Laundromat (Former)	1911 W Cascade AVE	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7092	-121.5315
18293	2991	Luhr Jensen & Sons - May St.	2508 May St.	Hood River	97031	Hood river	LIS	Other recommendation	45.7041	-121.5379
13168	2992	Luhr Jensen & Sons - Portway Ave.	400 Portway Ave.	Hood River	97031	Hood river	NFA	NO FURTHER STATE ACTION REQUIRED	45.7153	-121.5148
5009	2993	Krieg Millwork	755 Frankton Rd.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.6977	-121.5534
5610	2994	Cascade Wood Components	15 Herman Creek Rd.	Cascade Locks	97014	Hood river	NFA	NO FURTHER STATE ACTION REQUIRED	45.6802	-121.8644
11415	2995	Cascade Locks Lumber	Industrial Park Way	Cascade Locks	97014	Hood river	LIS	RISK ASSESSMENT	45.6832	-121.8604
41200	2996	Greenhill Lumber Co.	Industrial Park	Cascade Locks	97014	Hood river	NFA	NO FURTHER STATE ACTION REQUIRED	45.6836	-121.8556
41201	2997	Bear Mountain Lumber	1415 Forest LN	Cascade Locks	97014	Hood river	SUS	Closeout activities on completed project	45.6805	-121.856
41227	3037	Wrecking Yard Site - Port of Portland	10201 NE Airport Way	Portland	97220	Multnomah	LIS	No Further Action (Conditional)	45.5758	-122.5553
43722	3207	Spaulding Cleaners (Former)	415 Oak St.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7087	-121.5151
43884	3245	Heights Laundromat (The)	1771 12th Dr.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.696	-121.5225
90596	3324	Portland Airport Fire Training Pits	NW of airport terminal, adjacent to runway area	Portland	97218	Multnomah	LIS	REMEDIAL INVESTIGATION	45.5947	-122.6125
38235	3333	Canoe Bay - Contaminated Sediment	N Hayden Island Dr.	Portland	97217	Multnomah	LIS	No Further Action (Conditional)	45.6196	-122.6922
45613	3369	Texaco Bulk Plant No. 308080 (Former) - Hood River	1210 W Industrial ST	Hood River	97031	Hood river	NFA	NO FURTHER STATE ACTION REQUIRED	45.7123	-121.5239
45614	3370	Mobil Oil Bulk Plant (Former) - Hood River	2680 Dock Rd.	Hood River	97031	Hood river	SUS	Other remedial or investigative action recommended	45.71	-121.5065
45937	3372	12th St. & Belmont Rd. Service Station (Former)	1502 12th St.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.6993	-121.524
45876	3373	Heights Service (Former)	1403 12th St.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7001	-121.5234
45875	3374	12th & Wilson Sts. Service Station - NW (Former)	1316 12th St.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7004	-121.5239
60063	3500	Mountain Fir Chip Co. - The Dalles	3636 Klindt DR	The Dalles	97058	Wasco	NFA	NO FURTHER STATE ACTION REQUIRED	45.6364	-121.2008
90599	3519	Portland Ground Run-Up Enclosure Facility	5909 NE McGuire Ave. (NE Airway Circle)	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5854	-122.6045
47622	3526	1610 North Pier 99 St.	1610 N Pier 99 St.	Portland	97217	Multnomah	LIS	Site Investigation recommended (SI)	45.6065	-122.6829
90105	3540	Port of Hood River - UTS Portsite	Portway AVE	Hood River	97031	Hood river	NFA	NO FURTHER STATE ACTION REQUIRED	45.7141	-121.5177
47829	3759	Diversified Marine, Inc.	1801 N Marine Dr.	Portland	97217	Multnomah	SUS	Site Investigation recommended (SI)	45.6075	-122.685
142078	3778	Mitchell Point Texaco (Former)	Old Hwy. 30			Hood river	SUS	Site Screening recommended (EV)	45.7031	-121.6187
55786	3874	Methodist Lane Building Debris	1030 Methodist Ln.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.6921	-121.56
55966	3889	CenturyLink - Waucoma Center	902 Wasco St.	Hood River	97031	Hood river	LIS	No Further Action (Conditional)	45.7122	-121.5209
55968	3890	Industrial St. Gas Station (Former)	1000 W Industrial St.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7123	-121.5221
59533	3899	Belmont Dr. Orchard	3900 block of Belmont Dr.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.6925	-121.5526
50839	3914	Western Power Products (Former)	900 Portway AVE	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7154	-121.5211
23169	4002	Doug's Affordable Muffler	3838 W 6th ST	The Dalles	97058	Wasco	SUS	Site Screening recommended (EV)	45.6284	-121.215
80898	4023	Hood River Pole Barn Site	17th & May Sts.	Hood River	97031	Hood river	NFA	NO FURTHER STATE ACTION REQUIRED	45.7042	-121.5287
92444	4038	River City Environmental	2838 NE Columbia Blvd.	Portland	97211	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5747	-122.6366

87013	4045	Hood River Spray Manufacturing Co. (Former)	Hood River (east bank)	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.704	-121.5066
82167	4061	Hood River Grange Supply (Former)	1027 W Industrial ST	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7118	-121.5233
82153	4065	UPRR Diesel Spill - Rowena	I-84, Exit 76 (Rowena)			Wasco	NFA	NO FURTHER STATE ACTION REQUIRED	45.6766	-121.277
83118	4134	Webster Family Convenience Store/Gas Station	1020 N Marine Dr.	Portland	97217	Multnomah	SUS	Site Screening recommended (EV)	45.6027	-122.6774
22109	4138	Metro Expo Center	2060 N Marine Dr.	Portland	97217	Multnomah	SUS	Site Screening recommended (EV)	45.6074	-122.6886
9773	4150	UAL Portland Maintenance Facility	8121 NE Airport Way	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5841	-122.5767
83287	4151	UAL Hangar, Port of Portland	NW corner, Portland Int'l Airport, along NE Marine Dr.	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5966	-122.6042
9773	4152	Port of Portland PDX Fuel Farm (Former)	Portland Int'l Airport, E of main terminal along NE Airport Way	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5838	-122.5759
83289	4153	RS Land LLC	8434 NE 33rd Dr.	Portland	97211	Multnomah	SUS	Site Screening recommended (EV)	45.5819	-122.6353
83291	4154	Olympic Foundry Inc.	6530 NE 42nd Ave.	Portland	97218	Multnomah	SUS	Site Screening recommended (EV)	45.5703	-122.616
83293	4156	American Steel Products (Former)	3885 NE Bryant St.	Portland	97211	Multnomah	SUS	Site Screening recommended (EV)	45.574	-122.6233
83294	4158	Kenrich Products, Inc.	6853 NE 42nd Ave., B	Portland	97218	Multnomah	SUS	Site Screening recommended (EV)	45.5739	-122.6238
83299	4159	Chimney Tek/Splinter Fixtures and Products	3881 NE BRYANT ST	Portland	97218	Multnomah	SUS	Site Screening recommended (EV)	45.5734	-122.6204
15032	4161	John L. Jersey and Son, Inc./Coe Properties	7015 NE 42nd Ave.	Portland	97218	Multnomah	SUS	SITE INVESTIGATION	45.574	-122.6211
38098	4162	Thomson Equipment Co.	7201 NE 42nd Ave.	Portland	97218	Multnomah	SUS	Site Screening recommended (EV)	45.5753	-122.6209
33723	4176	Turtle Pond Sediment	5703 N Marine Dr.	Portland	97203	Multnomah	SUS	Site Screening recommended (EV)	45.6197	-122.7248
83889	4178	Petroleum - 4th & Oak	403 Oak ST	Hood River	97031	Hood river	NFA	NO FURTHER STATE ACTION REQUIRED	45.7092	-121.5139
55509	4310	White Marine Services, Inc.	2335 N Marine Dr.	Portland	97217	Multnomah	SUS	Site Investigation recommended (SI)	45.6095	-122.6914
87582	4346	The Dalles Industrial Center	Chenoweth Creek Industrial Subdivision	The Dalles	97058	Wasco	NFA	NO FURTHER STATE ACTION REQUIRED	45.6331	-121.2019
89908	4360	Farm Chemical & Fertilizer Co. - E 2nd St.	1008 E 2nd St.	The Dalles	97058	Wasco	SUS	Site Screening recommended (EV)	45.5973	-121.1731
87843	4361	Farm Chemical & Fertilizer Co. - Port Dock	Union ST & Port Dock	The Dalles	97058	Wasco	SUS	Site Screening recommended (EV)	45.6044	-121.1816
88000	4381	The Dalles Iron Works	720 E 2nd St.	The Dalles	97058	Wasco	SUS	Site Screening recommended (EV)	45.5984	-121.1762
88995	4432	Bridal Veil Lumbering Co. - Hood River	Railroad ST	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7114	-121.5187
88996	4433	Kelly Brothers - Hood River	Railroad ST	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7112	-121.5181
14029	4472	Troutdale Airport Hangars 1-3	1020, 1080, 1230 and 1260 NW Perimeter Way	Troutdale	97060	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5509	-122.3932
7955	4479	Sunshine Mill	901 E 2nd St.	The Dalles	97058	Wasco	SUS	Site Screening recommended (EV)	45.5978	-121.173
89955	4495	Eudaly Brothers	6920 NE 42nd Ave.	Portland	97211	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5736	-122.6198
91141	4544	Drums - NE Marine Dr.	9000 Block of NE Marine Dr.	Portland	97211	Multnomah	SUS	Refer to Program	45.5819	-122.5597
91099	4553	Miller Transport	4010 NE Buffalo St.	Portland	97201	Multnomah	SUS	Site Screening recommended (EV)	45.5762	-122.6228
97541	4557	Northwest Aluminum - Section 2 Property	River RD	The Dalles	97058	Wasco	NFA	NO FURTHER STATE ACTION REQUIRED	45.6201	-121.1987
19099	4581	Moody Holding Property	5413 NE Columbia Blvd.	Portland	97218	Multnomah	SUS	Site Screening recommended (EV)	45.5713	-122.6075
92430	4618	12th St. & Taylor Ave. UST	12th St. & Taylor Ave. (SW corner of)	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7023	-121.5237
97554	4619	Jucho Building	N 2nd ST	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7136	-121.5119
117327	4739	Portland International Airport Concourse A/B Ramp	7000 NE Airport Way	Portland	97218	Multnomah	NFA	No Further Action (Conditional)	45.5876	-122.5926
101136	4760	Mt. Hood Railroad Maintenance Yard	Front & E State Sts. (NE corner of)	Hood River	97031	Hood river	SUS	Federal Preliminary Assessment recommended	45.7084	-121.5084
101194	4761	Cascade Ave. Service Station (Former)	1825 Cascade Ave.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7091	-121.5303
101195	4762	Antler Auto Park Service Station	1809 Cascade AVE	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7089	-121.5299
101193	4763	Cascade Ave. Service Station North (Former)	1810 Cascade Ave.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7095	-121.5303
101196	4764	Cascade Ave. & 18th St. Service Station	Cascade Ave. & 18th St. (SE corner of)	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7091	-121.5294
101197	4765	Smith Auto Camp Service Station	1787 Cascade AVE	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7092	-121.5296
101696	4788	Chenoweth Quarry	Hwy 30, Milepost 71.8	The Dalles	97058	Wasco	LIS	No Further Action (Conditional)	45.6364	-121.215
101761	4793	Northwest Aluminum Co.	3313 W 2nd St.	The Dalles	97058	Wasco	LIS	No Further Action (Conditional)	45.6242	-121.2064

101968	4799	Underwood Tanker Rollover - Lindsey Pond	Old Columbia River Hwy near Lindsey Creek			Hood river	SUS	Site Screening recommended (EV)	45.6885	-121.7141
125511	4845	Hood River - Waste Oil Release	12th St.	Hood River	97031	Hood river	SUS	Other remedial or investigative action recommended	45.6962	-121.5239
22847	4927	Uptown Texaco (Former)	1103 12th St.	Hood River	97031	Hood river	NFA	NO FURTHER STATE ACTION REQUIRED	45.7023	-121.5233
3460	4930	AMC Facility	4635 NE Cornfoot Rd	Portland	97218	Multnomah	NFA	Preliminary Assessment Equivalent recommended (PAE)	45.5779	-122.614
128424	4931	Carter Oil Co. (Former)	W 2nd & W Hostetler Sts. (NW corner of)	The Dalles	97058	Wasco	SUS	Refer to Program	45.6233	-121.212
10010	4995	All Foreign & Domestic Auto Salvage	707 W Snipes St.	The Dalles	97058	Wasco	NFA	NO FURTHER STATE ACTION REQUIRED	45.6182	-121.2117
19074	4996	Jones Auto Wrecking (former)	749 Snipes St W	The Dalles	97058	Wasco	SUS	SITE INVESTIGATION	45.6183	-121.2137
107390	5026	Mosier WWTP - Expansion Project	Hwy 30 (north of) & UPRR tracks (south of)	Mosier	97040	Wasco	SUS	Closeout activities on completed project	45.6849	-121.4044
123187	5083	Dry Cleaner - E 1st St. (Former)	E 1st St.	The Dalles	97058	Wasco	SUS	Site Screening recommended (EV)	45.603	-121.1827
107390	5106	Hwy 30 & Rock Creek Petroleum Contamination	Hwy 30 & Rock Creek (SE corner of)	Mosier	97040	Wasco	SUS	Site Screening recommended (EV)	45.6849	-121.4044
109685	5107	Hal's Richfield (Former)	12th & May Sts. (SW corner of)	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7039	-121.5239
110645	5112	Central Cleaners (Former)	404 Washington St.	The Dalles	97058	Wasco	SUS	Site Screening recommended (EV)	45.6003	-121.1825
110167	5122	Comfort Suites - Hood River	2625 Cascade AVE	Hood River	97031	Hood river	NFA	NO FURTHER STATE ACTION REQUIRED	45.7097	-121.5379
110166	5123	Murray Wrecking Yard TL 700	Cascade AVE & Rand	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7102	-121.5386
110185	5125	Meyer's Cleaners - State St.	115 State St.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7079	-121.5119
119060	5127	Huotte's Machine Shop	Oak & Front Sts.	Hood River	97031	Hood river	SUS	No Further Action (Conditional)	45.709	-121.5106
16752	5144	Knoll Motor Co. (Former)	1111 12th St.	Hood River	97031	Hood river	NFA	NO FURTHER STATE ACTION REQUIRED	45.702	-121.5232
110660	5146	Chadney Shell (Former)	12th ST & May ST (SE corner of)	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7039	-121.5234
111191	5181	Vogt Building (The)	312-320 E 2nd St.	The Dalles	97058	Wasco	SUS	Site Confirmatory Sampling recommended	45.6007	-121.181
111528	5184	Port of Cascade Locks Business Park	Industrial Park Way & Cramblett Way	Cascade Locks	97014	Hood river	NFA	NO FURTHER STATE ACTION REQUIRED	45.6817	-121.853
112016	5223	NAPA Auto Parts Bldg.	101 E 2nd St.	The Dalles	97058	Wasco	NFA	NO FURTHER STATE ACTION REQUIRED	45.6023	-121.1837
167260	5323	Portland Water Bureau Well #14	19606 NE Marine Drive	Portland	97230	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5564	-122.4592
115064	5332	Mosier Motel (Former)	206 Center ST	Mosier	97040	Wasco	SUS	Site Investigation recommended (SI)	45.6826	-121.3993
23525	5335	Mosier Gas Station (Former)	1202 1st AVE	Mosier	97040	Wasco	NFA	NO FURTHER STATE ACTION REQUIRED	45.6832	-121.3988
3827	5390	Sundial Marine Construction & Repair	5605 NE Sundial Rd.	Troutdale	97060	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5635	-122.4149
111133	5455	Metro Metals, Inc.	5611 NE Columbia Blvd.	Portland	97218	Multnomah	SUS	REMEDIAL ACTION	45.5704	-122.6066
119158	5524	South Cargo Reload Rack Jet Fuel Release	Portland International Airport (3 Sites)	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5867	-122.6066
119203	5531	Jaymar Lumber Mill	Jaymar Rd.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7146	-121.5296
119246	5534	Heights Coin-Op Dry Cleaners (Former)	924 12th St.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7032	-121.5239
119247	5535	City Cleaners (Former) - Hood River	1212 C St.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7017	-121.5242
119248	5536	Self Serve Laundry	1114 June St.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7033	-121.523
119307	5540	Engel & Bentley Machine Shop (Former)	4th & Columbia Sts. (SW corner of)	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.71	-121.5145
119308	5541	Hood River Laundry (Former)	1231 State St.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7076	-121.5248
119316	5543	Prater Texaco (Former)	Oak & 13th Sts. (SW corner of)	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7086	-121.5255
123225	5544	Oak St. Service Station (Former)	Oak & 13th Sts. (NE corner of)	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7089	-121.5248
121489	5655	Dock Road Bulk Plant (Former)	Dock Rd.	Hood River	97031	Hood river	SUS	Site Screening recommended (EV)	45.7097	-121.5057
121966	5665	UPRR Dune Coverage	RR Tracks	The Dalles		Wasco	SUS	Site Screening recommended (EV)	45.6657	-121.2214
122065	5666	Triggco Property	4320 N Suttle Rd.	Portland	97217	Multnomah	SUS	Certification of Completion	45.6145	-122.7126
122216	5676	McBride Slough (M1-5 ditch)	8000 block, NE Alderwood Rd.	Portland	97218	Multnomah	SUS	Source Control Evaluation	45.5747	-122.5821
122957	5692	Kuhnau Property	6915 NE 46th Ave.	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5739	-122.6162
122989	5695	Stockyards Commerce Center	2500-2664 N Marine Dr.	Portland	97217	Multnomah	SUS	SITE INVESTIGATION	45.6092	-122.6945
122999	5696	Bulk Transportation Facility	11619 N Force Ave.	Portland	97217	Multnomah	SUS	Site Investigation recommended (SI)	45.6072	-122.6938

123291	5711	Hayden's Corner	1321-1337 N Hayden Island Dr.	Portland	97217	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.6135	-122.6794
123843	5725	Herman Creek PCBs	Industrial Park Way	Cascade Locks	97014	Hood river	SUS	SITE EVALUATION	45.6813	-121.8621
116094	5727	Hood River I-84 on-ramp	Eastbound onramp, exit 64, I-84	Hood River	97031	Hood river	SUS	Closeout activities on completed project	45.7101	-121.502
124472	5733	Dale Jersey Property	6845 NE 42ND AVE	PORTLAND	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5735	-122.6206
124405	5734	Gas Station (Former)	Bounded by Oregon St., 2nd Ave., and Old US Hwy. 30	Mosier	97040	Wasco	NFA	NO FURTHER STATE ACTION REQUIRED	45.6838	-121.3968
126046	5770	Parkrose Auto Center	5242 NE Columbia Blvd.	Portland	97218	Multnomah	SUS	Site Screening recommended (EV)	45.5696	-122.6084
128075	5817	Derry Property - Heating Oil AST	1206 3rd Ave	Mosier	97040	Wasco	NFA	NO FURTHER STATE ACTION REQUIRED	45.6824	-121.3996
129908	5846	Portland International Airport Taxiway T	Portland International Airport	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5918	-122.5968
129934	5848	PDX Intl. Airport Bulk Fuel Tanks	Portland International Airport	Portland	97218	Multnomah	SUS	No Further Action (Conditional)	45.5972	-122.6133
129935	5849	Portland International Airport Taxiway F	Portland International Airport	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5855	-122.6032
131665	5890	Colwood National Golf Course- North	7007 NE Cornfoot Rd.	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5736	-122.5857
132192	5903	Atlas Towing	5327 NE Columbia Blvd.	Portland	97218	Multnomah	SUS	SITE EVALUATION	45.5698	-122.6079
541	5939	Flint Ink-Former James River Ink Division	2985 N Marine Drive	Portland	97217	Multnomah	SUS	No Further Action (Conditional)	45.6114	-122.6978
135443	5955	Northwest Aluminum - Tax Lot 200	2650, 2652 and 2625 River Rd.	The Dalles	97058	Wasco	SUS	Prospective Purchaser Agreement	45.6178	-121.2025
135981	5966	Chinook Sailing Products	190 NE Herman Creek Lane	Cascade Locks	97014	Hood river	NFA	NO FURTHER STATE ACTION REQUIRED	45.6831	-121.8628
11416	5972	Cascade Locks Wastewater & Storage Facility	90 Herman Creek Lane	Cascade Locks	97014	Hood river	SUS	SITE INVESTIGATION	45.6822	-121.8646
137641	6038	Portland Int'l Airport - Taxiway T, Concourse C	Portland International Airport	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5908	-122.6036
138402	6058	Jordan Orchard (Former)	Belmont Drive & Fairview Drive	Hood River	97031	Hood river	SUS	SITE EVALUATION	45.6972	-121.545
141582	6115	Mosier UPRR Derailment	Near Rock Creek Rd.	Mosier	97040	Wasco	SUS	CONFIRMATION SAMPLING	45.6849	-121.4022
140844	6118	Forrest Motors (Former)	102 W 3rd St.	The Dalles	97058	Wasco	NFA	NO FURTHER STATE ACTION REQUIRED	45.6016	-121.1849
134387	6128	Hayden Island - Umatilla Property	1445 and 1463 N Hayden Island Dr.	Portland	97217	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.6143	-122.6822
143731	6165	The Dalles Columbia River Sediments	Intersection of First & Union Streets	The Dalles	97058	Wasco	SUS	Site Screening recommended (EV)	45.6044	-121.1823
145090	6189	Blue Lake Corporate Park PPA	NE Riverside Parkway	Gresham	97230	Multnomah	SUS	Certification of Completion	45.5532	-122.458
151909	6231	UPRR Mosier Depot Property	Old US Hwy 30	Mosier	97040	Wasco	NFA	NO FURTHER STATE ACTION REQUIRED	45.6839	-121.3981
149104	6241	Jackson Readiness Center	6255 NE Cornfoot Rd	Portland	97218	Multnomah	NFA	NO FURTHER STATE ACTION REQUIRED	45.5754	-122.5987
154129	6275	Morrison Oil Tax Lot 700 (see also ECSI# 800)		Portland	97217	Multnomah	SUS	SITE EVALUATION	45.6146	-122.7056
12463	6281	Tonkin Subaru	2222 W 6th St	The Dalles	97058	Wasco	NFA	NO FURTHER STATE ACTION REQUIRED	45.6178	-121.2115
160713	6418	Economy Auto Parts	6909 NE 47th Ave	Portland	97217	Multnomah	SUS	SITE EVALUATION	45.5734	-122.6143
166115	6484	Airport Auto Salvage	4623 NE Buffalo St	Portland	97218	Multnomah	SUS	SITE INVESTIGATION	45.5758	-122.6151
166119	6485	Crystal Lane Auto Salvage	4540 NE Crystal Ln	Portland	97218	Multnomah	SUS	Site Screening recommended (EV)	45.5773	-122.6156
167479	6517	Lockheed-Martin RCRA Landfill	3850 River Road	The Dalles	97058	Wasco	SUS	Refer to RCRA Program	45.6241	-121.2019
167044	6524	Tonys Building	401 - 407 East 2nd Street	The Dalles	97058	Wasco	SUS	FEASIBILITY STUDY	45.6008	-121.1803

Attachment A-2. Site History Information for the Cascade Renewable Transmission Project – Washington
 Bold text indicates site is within 0.5 miles of proposed dredging activities. Individual site details are provided in Attachment B-2.

Site Name	CleanupSiteld	FacilitySiteld	Site Status	Address	City	Zip Code	County	Latitude	Longitude
US ARMY COE HAMILTON IS LDFL	138	240	No Further Action	BONNEVILLE LOCK & DAM	NORTH BONNEVILLE	98639	Skamania	45.6445	-121.9407
UNOCAL BULK PLANT 0761	276	1382	Cleanup Started	LEAVENS ST & CASCADE AVE	STEVENSON	98648	Skamania	45.6933	-121.8815
Vancouver Hatchery	632	18962779	No Further Action	12208 SE EVERGREEN HWY	VANCOUVER	98683-6632	Clark	45.5979	-122.5454
Midstate Land Co	690	1384	No Further Action	70 NW 2ND ST	STEVENSON	98648	Skamania	45.6947	-121.8804
US ARMY COE HAMILTON IS PARCEL 2	736	241	Cleanup Started	1490 Coyote Ridge Road	Stevenson	98648	Skamania	45.6427	-121.9632
TIDEWATER COVE CONDOMINIUMS	845	7570126	Cleanup Started	5625 SE SCENIC LANE	VANCOUVER	98661	Clark	45.6131	-122.6128
Brazier Forest Industries	855	33837982	Cleanup Started	1401 INDUSTRIAL WAY	VANCOUVER	98660	Clark	45.6313	-122.6872
Astro Minit Mart 726	905	77596494	No Further Action	1919 NE ANDRESON RD	VANCOUVER	98661	Clark	45.6147	-122.6044
Boise Cascade White Paper Vancouver	1468	5007183	Cleanup Complete-Active O&M/Monitoring	907 W 7TH ST	VANCOUVER	98660	Clark	45.6250	-122.6808
Stevenson Commerce Site	1507	3010189	No Further Action	167 NW 2ND ST	STEVENSON	98648	Skamania	45.6947	-121.8825
Kaiser Shipyard Debris Pile	1831	15550	No Further Action	3500 HIDDEN WAY & ASSEMBLY AVE SE	VANCOUVER	98661	Clark	45.6139	-122.6319
Vancouver Port of Red Lion Hotel	2033	15891	Cleanup Started	100 COLUMBIA ST	VANCOUVER	98660	Clark	45.6227	-122.6767
Vancouver Port of Red Lion Hotel	2033	15891	Cleanup Started	100 COLUMBIA ST	VANCOUVER	98660	Clark	45.6227	-122.6767
PRI Northwest Inc Vancouver	2441	24972725	Cleanup Started	1300 W 8TH ST	VANCOUVER	98660	Clark	45.6280	-122.6863
PRI Northwest Inc Vancouver	2441	24972725	Cleanup Started	1300 W 8TH ST	VANCOUVER	98660	Clark	45.6280	-122.6863
Hambleton Bros Log Yard	2482	4399598	No Further Action	335 S A ST	WASHOUGAL	98671-2138	Clark	45.5789	-122.3761
JT MARINE INC	2575	24862	No Further Action	2301 SE HIDDEN WAY STE 100	VANCOUVER	98661	Clark	45.6123	-122.6441
Northwest Pipeline GP Stevenson 2 M/S	2596	6144020	No Further Action	58 KANAKA CREEK RD	STEVENSON	98648	Skamania	45.7036	-121.8867
CLARK PROPERTY	2750	73877981	No Further Action	7401 ST HWY 14	LYLE	98635	Klickitat	45.7127	-121.3300
TIDEWATER BARGE LINES INC	2756	1021	No Further Action	6 BEACH DR SE	VANCOUVER	98661	Clark	45.6133	-122.6116
FMC Corp Vancouver	2795	1016	No Further Action	1710 S ACCESS RD	VANCOUVER	98661	Clark	45.6168	-122.6545
Port Way ROW Pacific Coast Shredding	2837	2297659	Awaiting Cleanup	PORT WAY	VANCOUVER	98660	Clark	45.6289	-122.6875
ORBIT INDUSTRIES	2925	1052	No Further Action	778 S 27TH ST	WASHOUGAL	98671-2506	Clark	45.5708	-122.3430
Fort Vancouver Plywood	3057	1029	Construction Complete-Performance Monitoring	W 8TH ST	VANCOUVER	98660	Clark	45.6285	-122.6891
Columbia Business Park Bldg 41 Bay 3	3192	27945	No Further Action	3001 SE COLUMBIA WAY BLDG 41 BAY 3	VANCOUVER	98661	Clark	45.6182	-122.6588
Cascade Tempering	3262	1013	No Further Action	2501 SE COLUMBIA WAY BLDG 39 & 5	VANCOUVER	98661	Clark	45.6173	-122.6463
BROUGHTON LUMBER CO	3312	6368118	Awaiting Cleanup	92 Firehouse RD	UNDERWOOD	98651	Skamania	45.7253	-121.5594
BERTHA PALERMO TRUST	3513	31975739	No Further Action	690 NW ACHOR ST	WHITE SALMON	98672	Klickitat	45.7328	-121.4885
Vancouver Ice & Fuel Oil	3679	1037	Cleanup Started	1112 W 7TH ST	VANCOUVER	98666	Clark	45.6268	-122.6831
Vancouver Ice & Fuel Oil	3679	1037	Cleanup Started	1112 W 7TH ST	VANCOUVER	98666	Clark	45.6268	-122.6831
NW Pipeline Meter Station Hood River	3849	406	No Further Action	HWY 14	BINGEN	98605	Klickitat	45.7246	-121.4898
Vancouver Port of 058720-000	4018	5922991	Awaiting Cleanup	1501 W 8TH ST	VANCOUVER	98660	Clark	45.6272	-122.6878
Cascade Paint	4118	1283112	No Further Action	727 S 27TH ST	WASHOUGAL	98671-2505	Clark	45.5720	-122.3437
NW Pipeline Meter Station White Salmon	4718	405	No Further Action	HWY 14	BINGEN	98605	Klickitat	45.7246	-121.4898
WA DOT FRONTAGE ROAD RIGHT OF WAY	4783	4740395	Awaiting Cleanup	N OF SR 14 MP 50 & MP 50.36	STEVENSON	98648	Skamania	45.7109	-121.7750
Stevenson Co Ply Mill	4872	81274771	Cleanup Started	42882 STATE HWY 14	STEVENSON	98648	Skamania	45.6781	-121.9046
Town Pump Gas Station	4905	403	Cleanup Started	521 E JEWETT BLVD	WHITE SALMON	98672	Klickitat	45.7262	-121.4812
ARCO SS 4185	4982	1069	No Further Action	7609 MACARTHUR BLVD	VANCOUVER	98664	Clark	45.6082	-122.5845
Jackpot 01-424	5412	6629632	No Further Action	559 E JEWETT AVE	WHITE SALMON	98672	Klickitat	45.7263	-121.4738

WA DOT Bingen Maintenance Site	5549	13211817	No Further Action	SR 14 MP 65.88 S SIDE	BINGEN	98605	Klickitat	45.7190	-121.4748
Wison Oil II	5551	13233349	Cleanup Started	117 E STEUBEN	BINGEN	98605	Klickitat	45.7144	-121.4661
Stevenson Texaco	5666	19964695	No Further Action	326 EVERGREEN DR	STEVENSON	98648-6074	Skamania	45.6415	-121.9810
Hunsaker Oil Company Inc Bingen	5817	28537434	Cleanup Started	102 E STEUBEN	BINGEN	98605	Klickitat	45.7149	-121.4660
Lyle School Dist Bus Garage	6232	53227158	No Further Action	HWY 14 & 5TH ST	LYLE	98863	Klickitat	45.6934	-121.2856
Unocal Bulk Plant 0046	6383	61834259	Cleanup Started	217 E STEUBEN ST	BINGEN	98605	Klickitat	45.7141	-121.4650
Stevenson Carson School District Bus Garage	7751	7538693	No Further Action	ROOSEVELT ST	STEVENSON	98648-0850	Skamania	45.6985	-121.8876
Hannah Mitsubishi	7922	12126843	No Further Action	300 WASHINGTON ST	VANCOUVER	98668	Clark	45.6233	-122.6731
Skamania General Store	8236	19388181	No Further Action	MP 33L STATE HWY 14	SKAMANIA	98648	Skamania	45.6145	-122.0523
Skamania Road District 2	8344	22776978	No Further Action	575 ROCK CREEK DR	STEVENSON	98648	Skamania	45.6939	-121.8909
Pacific Pride Garwood Co	8422	24435695	No Further Action	W STEUBEN ST	BINGEN	98605-0096	Klickitat	45.7162	-121.4706
Hunsaker Oil Stevenson Station	8497	25886634	Cleanup Started	2ND & COLUMBIA	STEVENSON	98648	Skamania	45.6950	-121.8811
Columbia Business Center Bldg 37	8689	31863326	No Further Action	2501 SE COLUMBIA WAY	VANCOUVER	98661	Clark	45.6172	-122.6492
Time Oil 01-110	8835	35352326	No Further Action	50151 SR 14	STEVENSON	98648	Skamania	45.7110	-121.7761
Klickitat County Public Works Lyle	8951	37822876	No Further Action	20300 STATE ST	LYLE	98635	Klickitat	45.6916	-121.2796
WHITE SALMON DEPT OF PUBLIC WORKS	8952	37839158	No Further Action	216 NE TAHOMISH ST	WHITE SALMON	98672	Klickitat	45.7277	-121.4867
Great Western Malting	9051	41573682	Cleanup Started	1705 NW HARBORSIDE DR	VANCOUVER	98660-1529	Clark	45.6303	-122.6915
Panelog Heidis Gas & Deli	9606	53674485	No Further Action	320 JEWETT BLVD	WHITE SALMON	98672	Klickitat	45.7272	-121.4835
Skamania Road District One	9643	54488223	No Further Action	MP 28.81 L SR 14	WASHOUGAL	98671	Skamania	45.5959	-122.1320
THE DALLES CITY OF OREGON AIRPORT	10038	65197848	No Further Action	45 Airport Way	DALLESPO	98617	Klickitat	45.6185	-121.1734
Federal Highway Administration Vancouver	10166	68499396	No Further Action	610 E 5TH ST	VANCOUVER	98661-3893	Clark	45.6249	-122.6769
AT&T Skamania Radio Relay	10616	81649285	No Further Action	HWY 14 BEACON ROCK	SKAMANIA	98648	Skamania	45.6275	-122.0219
The Port Sider Store on the Marina	11089	92847997	No Further Action	24 A ST	WASHOUGAL	98671-2163	Clark	45.5783	-122.3827
Christensen Family Properties	11159	94656347	Cleanup Started	415 W 6TH ST	VANCOUVER	98660	Clark	45.6257	-122.6755
WDOT Stevenson Maintenance Site	11245	96491985	No Further Action	SR 14 MP 43.2 N	STEVENSON	98648	Skamania	45.6830	-121.9003
SDS LUMBER CO	11281	97478399	No Further Action	WALNUT & STEUBEN	BINGEN	98605	Klickitat	45.7147	-121.4692
Kiewit Construction	11628	37578187	No Further Action	18637 SE Evergreen Hwy	Vancouver	98683	Clark	45.5860	-122.4871
Exterior Wood Inc	11752	33568379	Cleanup Started	2685 INDEX ST	WASHOUGAL	98671-2537	Clark	45.5727	-122.3464
Waubish St Heating Oil Tank	12064	879	No Further Action	725 SW WAUBISH ST	WHITE SALMON	98672	Klickitat	45.7279	-121.5020
Bingen Quarry	12164	62892321	Cleanup Started	1250 E HWY 14	BINGEN	98605	Klickitat	45.7065	-121.4443
Mid Columbia Dry Cleaners	12313	34118537	No Further Action	80 ESTES AVE	WHITE SALMON	98672	Klickitat	45.7277	-121.4842
BNSF RR SR 14 @ MP 54.5	12623	17655	No Further Action	MP 54.5 SR 14	Stevenson		Skamania	45.7075	-121.6809
Steamboat Landing Marina	13024	13691	No Further Action	3710 SE 139TH AVE	VANCOUVER	98683	Clark	45.5935	-122.5308
Hannah Motor Company	13035	12126843	Cleanup Started	300 WASHINGTON ST	VANCOUVER	98668	Clark	45.6233	-122.6731
Kane Property	13079	902	No Further Action	121 E Jewett Blvd	White Salmon	98672	Klickitat	45.7275	-121.4861
Curl Property	13158	17727	No Further Action	608 Hwy 14	Lyle	98635	Klickitat	45.6928	-121.2833
Elwood Residence UST	14522	76031	No Further Action	61 JACKSON RD	BINGEN	98605	Skamania	45.7114	-121.6573
Riverside Residential HOT	14659	58324	Cleanup Started	6308 SE RIVERSIDE DR	VANCOUVER	98661	Clark	45.6136	-122.6058
Estes Ave Heating Oil Tank	14921	39125	No Further Action	85 ESTES AVE	WHITE SALMON	98672	Klickitat	45.7280	-121.4836
Vancouver King Street Substation	14952	94380	Awaiting Cleanup	704 KING ST	VANCOUVER	98660	Clark	45.6270	-122.6831
Hwy 14 MP 23 Burlington Environmental LLC	15269	25699	No Further Action	MP 23 Hwy 14	Washougal	98671	Skamania	45.5660	-122.2188
Hwy 14 MP 77 Truck Spill	16759	99998829	No Further Action	Hwy 14 Milepost 77	Lyle	98635	Klickitat	45.6866	-121.2716

Attachment B

Cleanup Site Details for the Cascade Renewable Transmission Project

Attachment B-1

Oregon Site Summary Reports

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 72, Martin Marietta Reduction Fac. RCRA/CERCLA L'fill

Site Photos

Click to View Photo	Picture Date	Caption	Size
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=4881&siteID=72)	08/14/1998	ECSI 72	449 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=4882&siteID=72)	09/10/2002	ECSI 72	484 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=4883&siteID=72)	09/10/2002	ECSI 72	405 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=4884&siteID=72)	09/10/2002	ECSI 72	342 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=4885&siteID=72)	09/10/2002	ECSI 72	395 Kb

General Site Information

Site ID: 72	Site Name: Martin Marietta Reduction Fac. RCRA/CERCLA L'fill	CERCLIS No: 052221025
Address:	3313 W 2nd St. The Dalles 97058	
	County: Wasco	Region: Eastern
Other location information:		
Investigation Status:	Listed on CRL or Inventory	
	Brownfield Site: No	NPL Site: No
	Orphan Site: No	Study Area: No
Property:	Twtnshp/Range/Sect: 2N , 13E , 28	Tax Lots: 500

Latitude: 45.6283 deg.

Longitude: -121.205 deg.

Site Size: 350 acres

Other Site Names:

Northwest Aluminum Co.

Martin Marietta Reduction Facility (MMRF)

Lockheed Martin

Martin Marietta

Site Characteristics

General Site
Description:

Site History:

Contamination
Information:

(7/5/1996 BPM/SRS) The facility produces aluminum via electrolytic reduction of alumina. Harvey Aluminum began operating at the site in 1958. Martin Marietta Corporation purchased Harvey Aluminum in 1970 and operated until 1984, when the plant was shut down. Before 1984, 5,000 tons of waste cathodic materials containing arsenic, cyanide, and polynuclear aromatic hydrocarbons (PAHs) were disposed of in an on-site landfill. An additional 64,670 cubic yards of cathode waste material were deposited on other portions of the site. Scrubber sludges containing fluorides and PAHs were disposed of in four scrubber sludge ponds. Cyanide was detected in groundwater beneath the site and in leachate from the landfill. In October 1984, EPA proposed the site for the National Priorities List (NPL). Martin Marietta hired a contractor, and reached an agreement with EPA in August 1985 to conduct a Remedial Investigation and Feasibility Study (RI/FS). EPA added the site to the NPL in June 1986.

Manner and Time of
Release:

On-site disposal; time of release 1958 - 1984.

Hazardous
Substances/Waste
Types:

Pathways:

Direct exposure to workers from wastes disposed of on-site; exposure due to use of contaminated wells. Potential for present or future groundwater use as a drinking water supply.

Environmental/Health
Threats:

Status of Investigative
or Remedial Action:

(7/5/1996 BPM/SRS) Northwest Aluminum Company leased the plant from Martin Marietta in 1986, and purchased the site in 1992. (Plant operations resumed in 1987.) EPA signed the Record of Decision in September 1988. The cleanup was conducted from September 1989 to August 1992. Cathode waste material from around the site was placed into the on-site landfill. The landfill was then closed and capped. The two open scrubber sludge ponds were covered over with soil. (Two of the ponds had been covered with soil and vegetation prior to 1984.) Groundwater wells in the area were abandoned, and users were connected to the City of The Dalles municipal water supply. Finally, a treatment system was set up to treat contaminated groundwater and landfill leachate. From October 1992 to June 1993, the landfill cap was modified and the leachate collection system was expanded to handle excess water seeping into the landfill. (The water was infiltrating in from the groundwater beneath the landfill.) EPA issued an Explanation of Significant Differences in September 1994 to address the modifications to the cleanup plan. EPA issued a Certificate of Completion for the cleanup in February 1995. Operation and maintenance activities continue and include long-term operation of the leachate collection and treatment system and groundwater monitoring. The site was delisted from the NPL in July 1996.

(April 26, 2005 Bob Schwarz) Arcadis is conducting pilot studies at the CERCLA and RCRA landfills to evaluate the effects of enhanced bioremediation to reduce concentrations of free cyanide in landfill leachate. These studies are being conducted under DEQ review.

At the CERCLA landfill, they have applied molasses and similar carbon sources both to the ground upgradient of the landfill and to the perimeter leachate collection system. The purpose is to stimulate biological activity and thereby increase the rate of cometabolism of the free cyanide. At the RCRA landfill, they have been experimenting with injection of carbon dioxide into the landfill. The CO₂ is piped to three existing gas vents on top of the landfill. The intent is for the CO₂ to lower the pH (the pH of the leachate is about 10) to a more neutral level. This is intended to make conditions more favorable for microbes that would then degrade the free cyanide.

(February 9, 2009, Bob Schwarz) Bioremediation of cyanide continues at the CERCLA landfill, following the success of the 2005 pilot study mentioned above. The CO₂ injection at the RCRA was not cost-effective and was therefore discontinued after the pilot study.

In October 2008, Lockheed removed approximately 2,500 of waste in the vicinity of monitoring wells MW-8S and MW-9S. This waste was taken to Waste Management's hazardous waste landfill in Arlington, Oregon. Although most waste on the site was consolidated in the nearby CERCLA landfill as part of the remedial action conducted between 1989 and 1992, this material was not, presumably because the two monitoring wells were already installed. The two small waste piles were therefore capped in place under oversight by EPA and DEQ as part of that remedy.

The recent removal action also included decommissioning of wells MW-8S and MW-9S. A replacement well, MW-42S, was installed nearby to enable groundwater monitoring at this location.

(Bob Schwarz, March 21, 2013) As indicated in the attached deed restriction, groundwater from the shallow aquifer (S aquifer) shall not be used at this site.

Data Sources: Project manager files. Key reports have been prepared by Geraghy & Miller (now Arcadis) from 1980s - present.

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
ARSENIC	Other	77 ppm	
CYANIDE (AS ION)	Leachate	1280 ppm	
CYANIDE (AS ION)	Soil	70 ppm	
FLUORIDE (AS ION)	Groundwater	3000 ppm	
FLUORIDE (AS ION)	Leachate	613 ppm	
FLUORIDE (AS ION)	Other	8000 ppm	
FLUORIDE (AS ION)	Soil	2880 ppm	
POLYAROMATIC HYDROCARBONS (PAH)	Leachate	0.206 ppm	
POLYAROMATIC HYDROCARBONS (PAH)	Other	8570 ppm	
POLYAROMATIC HYDROCARBONS (PAH)	Soil	2406 ppm	

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
OPERATION & MAINTENANCE (Primary Action)	02/23/1995		David Anderson (mailto:David.ANDERSON@deq.oregon.gov)	SRS

[View Full Report Showing Action History \(ecsdetailfull.asp?seqnbr=72#actions\)](#)

Site Environmental Controls

Control Description	Begin Date	End Date	Last Reviewed By	Last Review Date
Periodic monitoring & reporting, groundwater quality	02/01/1995		Brian McClure	

Key to Certain Acronyms and Terms in this Report:

- **CERCLIS No.:** The U.S. EPA's Hazardous Waste Site identification number, shown only if EPA has been involved at the site.
- **Region:** DEQ divides the state into three regions, Eastern, Northwest, and Western; the regional office shown is responsible for site investigation/cleanup.
- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting David Anderson at the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>) or via email at david.anderson@deq.oregon.gov (<mailto:David.ANDERSON@deq.oregon.gov>). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (<mailto:ximena.cruzcuevas@deq.state.or.us>) or contact the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 179, UPRR - Columbia Gorge Right of Way

<u>General Site Information</u>			
Site ID: 179	Site Name: UPRR - Columbia Gorge Right of Way		CERCLIS No: 980639223
Address:	1N/5E/S13 Bridal Veil 97010		
	County: Multnomah	Region: Northwest	
Other location information:	Between Multnomah Falls and Bridal Veil. Derailment extended from UPRR MP 28.25, east 800 feet, to a point west of mile marker 28.5; there is a break in the treeline as the derailment destroyed a stand of trees. NW 1/4 of the NW 1/4 of section 13.		
Investigation Status:	Listed on CRL or Inventory		
	Brownfield Site: No	NPL Site: No	Orphan Site: No Study Area: No
Property:	Twnshp/Range/Sect: 1N , 5E , 13		Tax Lots:
	Latitude: 45.5755 deg.	Longitude: -122.1425 deg.	Site Size: 1.5 acres
Other Site Names:	UPRR Right of Way - Columbia Gorge		
	Union Pacific Railroad		

<u>Site Characteristics</u>	
General Site Description:	
Site History:	

Contamination Information:	(11/9/95 KPD/SRS) Most of the cars involved in the derailment were "trailer on freight car" units (highway truck trailers mounted on railroad flat cars). The trailers carried a wide variety of general merchandise, including magazines, candy, furniture, aluminum pipe, and so forth. One trailer carried paint. There is conflicting information on how the wreck was cleaned up. UPRR initially reported to EPA (in 1981) that the wrecked trailers were buried on-site. UPRR later explained that they had very little information on the wreck, so they essentially reported a "worst-case" scenario. The railroad conducted sampling at the site in 1985, digging nine trenches along the length of the site. Twelve soil samples were analyzed for total lead and Oil & Grease; most of the sample results were less than 40 ppm lead and 80 ppm Oil & Grease. There is no record that any cleanup was performed. In 1988, UPRR reported that, after interviewing employees involved in the wreck, they had determined that the spilled paint was latex, not an oil- or lead-based paint. (There are no records as to what type of paint was carried by the trailer.) Also, very little debris was reportedly buried at the site.
Manner and Time of Release:	Train derailment involving 29 cars occurred about 5:00 PM, February 12, 1974.
Hazardous Substances/Waste Types:	paint and related substances (possibly solvents and lead)
Pathways:	The site is located in the Columbia River Gorge National Scenic Area. The Columbia River is less than 500 feet north, and the site is within the river's 100-year floodplain. There are some groundwater wells in the area, but all are up- or cross-gradient from the site. Groundwater is about 40 feet deep at the site. Public access is possible, but unlikely, given the site's location between railroad tracks and Interstate 84.
Environmental/Health Threats:	
Status of Investigative or Remedial Action:	(11/9/95 KPD/SRS) EPA has deferred to state authority. UPRR's contractor recommended in 1988 that additional confirmation samples be taken at the site. DEQ agrees, and recommends that the confirmation sampling be performed under the supervision of the Voluntary Cleanup Program (VCP).
Data Sources:	1) August 1985 UPRR Hydrogeological Investigation report. 2) September 1987 DEQ Federal Preliminary Assessment. 3) November 1988 E&E Federal Site Screening report. 4) Correspondence FROM owner and/or operator. 5) Laboratory Data.

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
LEAD	Soil	up to 326 ppm	
OIL - LUBRICATING	Soil	up to 228 ppm	

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Site Confirmatory Sampling recommended (Primary Action)	11/09/1995	11/09/1995	Kevin Dana (mailto:Kevin.DANA@deq.oregon.gov)	SAS

[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=179#actions\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx)

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You may be able to obtain more information about this site by contacting Kevin Dana at the [Northwest regional office](https://www.oregon.gov/DEQ/Pages/Offices.aspx) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>) or via email at kevin.dana@deq.oregon.gov (<mailto:Kevin.DANA@deq.oregon.gov>). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (<mailto:ximena.cruzcuevas@deq.state.or.us>) or contact the [Northwest regional office](https://www.oregon.gov/DEQ/Pages/Offices.aspx) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 325, Paulson Property

General Site Information

Site ID: 325	Site Name: Paulson Property	CERCLIS No:
Address:	Union St. & 2nd Ave. The Dalles 97058	
	County: Wasco	Region: Eastern
Other location information:	Urness Motor Company was located at 200 Union ST	
Investigation Status:	No further action required	
	Brownfield Site: No	NPL Site: No
		Orphan Site: No
		Study Area: No
Property:	Twنشp/Range/Sect: 1N , 13E , 3	Tax Lots: 400, 500
	Latitude: 45.6024 deg.	Longitude: -121.1842 deg.
		Site Size:
Other Site Names:	C.H. Urness Motor Co.	
	Hylland Property	

Site Characteristics

General Site Description:	
Site History:	
Contamination Information:	(8/1/88 MJZ/SAS) Leaking tanks have been removed, soils excavated to paved streets.
Manner and Time of Release:	Leaking tanks, spill; time of release unknown.
Hazardous Substances/Waste Types:	petroleum

Pathways:

Environmental/Health

Threats:

Status of Investigative or Remedial Action: (11/30/1998 DMC/SAS) This is a leaking underground storage tank (LUST) site that was NFA'd by the LUST program in February 1992. No action is necessary at this site under the state Superfund program. A new post office is currently being constructed at the site.

Data Sources: LUST file #33-91-0100.

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
PETROLEUM	Soil	1400 mg/kg	

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
NO FURTHER STATE ACTION REQUIRED (Primary Action)	11/30/1998	11/30/1998	Daniel Crouse	SAS

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For more information on this site contact the Eastern regional office
(<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 1379, US Army COE - Bonneville Dam

General Site Information

Site ID: 1379	Site Name: US Army COE - Bonneville Dam	CERCLIS No: 0140113218
Address:	I-84 (N of Exit 40) Bonneville	
	County: Multnomah	Region: Northwest
Other location information:		
Investigation Status:	Suspect site requiring further investigation	
	Brownfield Site: No	NPL Site: No
	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 2N , 7E , 21	Tax Lots:
	Latitude: 45.6402 deg.	Longitude: -121.9452 deg.
	Site Size:	
Other Site Names:	COE Civil Bonneville Dam	

Site Characteristics

General Site Description:

Site History:

Contamination Information:

On two separate occasions, bushings containing viscous fluids with PCBs exploded in the electrical substation located on the roof of the "First Powerhouse" at Bonneville Lock & Dam. These explosions occurred in August 1986 and February 1991; no more than several gallons of PCBs were released during each incident. Some PCB-containing oils may have entered the Columbia River. Following each incident, the Corps of Engineers conducted cleanups, and residual PCB levels were considered insignificant. Refer to ACOE's March 1992 Preliminary Assessment (prepared for EPA Region 10) for more details.

Manner and Time of
Release:

Hazardous
Substances/Waste
Types:

Pathways:

Environmental/Health
Threats:

Status of Investigative
or Remedial Action: (6/26/92 MAdER/EPA) Review of preliminary assessment completed. Site will not score high enough for the NPL - no further action planned under Superfund. The site will be referred to EPA's Toxic Substance Control Branch for further evaluation.

Data Sources: Preliminary Assessment entitled "Bonneville Lock and Dam Project, Oregon - Bushing Failures and PCB Exposure," prepared March 1992 by the U.S. Army Corps of Engineers for EPA Region 10.

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
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Site Screening recommended (EV) (Primary Action)	02/08/1994	02/08/1994	Daniel Crouse	SAS
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[View Full Report Showing Action History \(ecsdetailfull.asp?seqnbr=1379#actions\)](https://www.epa.gov/ecs/ecsdetailfull.asp?seqnbr=1379#actions)

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- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.

- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
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For more information on this site contact the Northwest regional office
(<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 1420, US Army COE - BNM Upstream Laydown Area

General Site Information

Site ID: 1420	Site Name: US Army COE - BNM Upstream Laydown Area	CERCLIS No:
Address:	Bonneville Lock & Dam Bonneville	
	County: Multnomah	Region: Northwest
Other location information:	8 miles west of Cascade Locks in the Columbia River Gorge; Upstream Laydown Area is a triangular area with a western base at Bonne Rock and bounded on the other sides by old and new locks.	
Investigation Status:	No further action required	
	Brownfield Site: No	NPL Site: No
	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 2N , 7E , 22	Tax Lots:
	Latitude: 45.6415 deg.	Longitude: -121.9356 deg.
		Site Size:
Other Site Names:	BNM - Upstream Laydown Area	
	Bonneville Navigation Mainlock (BNM)	

Site Characteristics

General Site Description:

Site History:

Contamination Information: (5/27/93 LSK) Soil on the Upstream Laydown Area, a portion of the Bonneville Navigation Lock, has been assessed for hazardous substances in preparation for a contract to restore the landscaping and road systems. Chrysene and low levels of substances (largely polynuclear aromatics) were identified in the soil. The Corps of Engineers requested DEQ review of the sampling results.

Manner and Time of Release:	Manner and time of release not known.
Hazardous Substances/Waste Types:	chrysene, polynuclear aromatics
Pathways:	
Environmental/Health Threats:	Level of chrysene is below the SOCLEAN guidance level of 1000 ppb for industrial sites. It is not in an area where direct contact is likely, and the area will be covered with asphalt. Therefore, risks at the site are considered insignificant.
Status of Investigative or Remedial Action:	(5/27/93 LSK) Corps of Engineers plan to complete work in the summer of 1993. Based on the results of soil sampling, it appears that no further state action is warranted at this time.
Data Sources:	

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
CHRYSENE	Soil	120 ug/kg	5/13/1993

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
NO FURTHER STATE ACTION REQUIRED (Primary Action)	05/24/1993	05/24/1993	Leslie Kochan	SAS

[View Full Report Showing Action History \(ecsdetailfull.asp?seqnbr=1420#actions\)](https://ecsdetailfull.asp?seqnbr=1420#actions)

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For more information on this site contact the Northwest regional office
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Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 1559, Hayden Island Landfill

<u>General Site Information</u>			
Site ID: 1559	Site Name: Hayden Island Landfill		CERCLIS No: 001002700
Address:	North parts of Hayden Island, west of I-5 Portland 97217		
	County: Multnomah	Region: Northwest	
Other location information:			
Investigation Status:	Listed on CRL or Inventory		
	Brownfield Site: No	NPL Site: No	Orphan Site: No
			Study Area: No
Property:	Twنشp/Range/Sect: 2N , 1E , 34		Tax Lots:
	Latitude: 45.6137 deg.	Longitude: -122.6802 deg.	Site Size: 20 acres
Other Site Names:			
	Arco Station #4475		
	Hayden's Corner		

<u>Site Characteristics</u>	
General Site Description:	
Site History:	

Contamination Information:	This unregulated landfill was located in a seasonal lake basin and probably operated between 1950 and 1970, when it was covered by a 7 to 8-foot layer of clean fill. An ARCO facility that opened in 1971 at the eastern edge of the former landfill initiated an investigation in 1989 that showed gasoline contamination in groundwater. Borings also revealed a layer of landfill debris beneath clean fill. DEQ's LUST program (file #26-89-0149) requested a Corrective Action Plan from ARCO, leading to pump-and-treat remediation that began operating 8/90. Groundwater samples from eight monitoring wells contained dissolved metals, which are most likely a result of leachate percolating through unknown solid wastes in the unsaturated zone. Because of system fouling from these metals, the treatment program was shut down in May 1991.
Manner and Time of Release:	Unregulated solid waste disposal between about 1950 and 1970; gasoline releases from underground tanks, sometime between 1971 and 1991.
Hazardous Substances/Waste Types:	metals, gasoline
Pathways:	The depth of groundwater ranges from about 8.8- to 28.7-feet, and varies seasonally, as well as with stage fluctuations in the nearby Columbia River.
Environmental/Health Threats:	Potential threats to Columbia River aquatic environments.
Status of Investigative or Remedial Action:	In June 1993, ARCO concluded that it was not possible to remediate benzene in groundwater without first removing dissolved metals. ARCO maintained that it had no responsibility for the metals. The LUST section may continue to require regular monitoring as a part of "conditional closure." Potential pathways of exposure appear limited to groundwater and surface water. Because more information is needed about the landfill and its levels of contamination, Site Assessment recommends that affected property owners characterize contamination in and below the former landfill. Otherwise, a PA should be completed to investigate the site's history and to evaluate potential exposure pathways, under a low priority. Confined space methane testing was performed by PBS for the Hayden's Corner property. The only significant methane was found at two bathroom floor drains where the likely source was sewer gas. Three soil gas samples were collected from borings around the former ARCO site as part of the investigation of the Hayden's Corner property (ECSI #5711). Methane at 2% was found near the former waste oil but this could have been from residual petroleum contamination. Other samples showed only trace methane.

Data Sources: Numerous documents and reports in NWR LUST file #26-89-0149.

Supplemental Environmental Study, Hayden Island Mobile Home / RV Park, Portland, Oregon, prepared for Heller Real Estate Financial Service, by Environmental Associates, Inc., October 30, 1992.

Hayden Island Landfill, Preliminary Assessment, Portland, Oregon, TDD: 07-07-0007, prepared for United States Environmental Protection Agency, by Ecology and Environment, Inc., January 2008.

Methane Testing - Hayden's Corner, PBS Engineering and Environmental, June 2011.

Phase II Sampling and Analysis Report, 1321-1337 N. Hayden Island Drive, prepared for Hayden's Corner LLC by Environmental Inspection Services, June 2012.

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
ARSENIC	Groundwater	344 ppb	5/4/1992
BENZENE	Groundwater	210 ppb	6/8/1994
BERYLLIUM	Groundwater	24 ppb	5/4/1992
CADMIUM	Groundwater	34 ppb	5/4/1992
CHROMIUM	Groundwater	566 ppb	5/4/1992
COPPER	Groundwater	748 ppb	5/4/1992
ETHYLBENZENE	Groundwater	2.2 ppb	12/12/1993
LEAD	Groundwater	550 ppb	5/4/1992
MERCURY	Groundwater	1 ppb	5/4/1992
NICKEL	Groundwater	543 ppb	5/4/1992
SILVER	Groundwater	23 ppb	5/4/1992
TOLUENE	Groundwater	1.9 ppb	6/8/1994
XYLENES	Groundwater	0.6 ppb	6/8/1994

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Site Investigation recommended (SI) (Primary Action)	01/19/2012	01/19/2012	Kevin Dana (mailto:Kevin.DANA@deq.oregon.gov)	SAS

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Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 1832, Portland Int'l Airport fuel pipeline

General Site Information

Site ID: 1832	Site Name: Portland Int'l Airport fuel pipeline	CERCLIS No:
Address:	(near) 7000 NE Airport Way Portland 97211	
	County: Multnomah	Region: Northwest
Other location information:	Jet fuel bulk plant includes three large above-ground storage tanks farm at located near the northwestern corner of the Portland International Airport. The site receives jet fuel via pipeline from a petroleum facility at Willbridge Cove in Portland. Bulk tank farm development at the Portland International Airport includes a small office building, a maintenance building, extensive piping, filters, and pumps for delivery of pressurized fuel delivered by buried pipeline to hydrants at the airport terminals.	
Investigation Status:	Listed on CRL or Inventory	
	Brownfield Site: No	NPL Site: No
	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 1N , 2E , 6	Tax Lots:
	Latitude: 45.5966 deg.	Longitude: -122.6125 deg.
		Site Size: 0.5 acre
Other Site Names:	ASIG Port of Portland - Airport Tank Farm Portland Fueling Facility - PDX formerly Chevron Pipeline Now Kinder-Morgan Willbridge Cove to PDX pipeline ECSI #5848 Bulk Fuel Storage Facility	

Site Characteristics

General Site
Description:

Additional information on nature and extent of release fuel fuel requested by DEQ in 2012 and 2015 as follow up to the 2002 DEQ request for an Expanded Preliminary Assessment.

See also ECSI #5848, Portland International Airport Bulk Fuel Tanks.

Site History:

1989 During site construction activities petroleum hydrocarbons were discovered in an excavation for a canopy footing. Monitoring wells indicate that the contamination originated from above ground storage tanks (ASTs), associated piping or past work practices. Release details are unknown. Fuel discovered in soil and groundwater at bulk plant prompted investigation.

Summer 1989 - Six monitoring wells installed peripheral to 2-acre bulk plant site to evaluate previous fuel release(s).

1/29/1992 - approx 2000 gallons released from AST valves onto soil inside AST secondary containment area. Soil cleanup and subsurface investigation followed.

pre-1992 - Three additional monitoring wells installed north and northwest of bulk plant facility to investigate possible pipeline/UST releases.

1995 - One 10,000-gal UST slop tank decommissioned and removed. Partial soil cleanup performed. Additional monitoring performed.

2012 - Continued subsurface investigation peripheral to 10,000 UST excavation, well monitoring, wellhead survey.

2015 - DEQ requests additional site characterization to determine nature and extent of affected groundwater downgradient of bulk plant.

Contamination
Information:

(9/22/2015 KRT) A jet A fuel release occurred at the Bulk Fuel Storage Facility prior to 1989 which prompted Reidel Environmental to install six soil borings/monitoring wells around the periphery of the Bulk Fuel Storage Facility. No release date or fuel release quantity are known. No remedial actions were taken. This release was associated with the Chevron Pipe Line serving the Bulk Fuel Storage Facility.

(3/12/96 GMW/SAS) In January 1992, drain valves were left open at the base of two 840,000-gallon above-ground fuel tanks at the site, resulting in the release of about 2,000 gallons of jet fuel. The release caused significant contamination of soils within the containment area. Some jet fuel flowed beyond the containment area as well. In the immediate aftermath of the release, approximately 1,250 gallons of fuel were recovered, and 600 yards of contaminated soil were excavated and removed. However, not all contaminated soil could be excavated, due to concerns about undermining tank foundations.

(9/22/2015 KRT) During the August 1995 removal of a 10,000-gallon underground tank storing off-spec jet fuel mixtures, extensive soil and groundwater contamination was found around the UST. Some contaminated soil was left in place during the removal.

Prior to 2002, subsurface investigations at Bulk Fuel Storage Facility indicated soil and groundwater contamination from known and unknown past releases. Up to 31,000 ppm of hydrocarbons remain in soil; shallow groundwater contained total BTEX in the 100 ppb to 3,000 ppb range. (10/25/02 cwh/sas) The site risk was rescored in 2002 based upon submission of groundwater data and a request from BBA Aircraft Shared Services for a no further action determination.

In return in 2002, DEQ sent a letter to ASIG requesting Expanded Preliminary Assessment of Bulk Fuel Storage Facility at the Portland International Airport. This request was partially completed in 2012 with soil investigation at the former UST and sampling of groundwater from nine site monitoring wells.

Manner and Time of
Release:

Hazardous
Substances/Waste
Types:

Petroleum hydrocarbons as jet fuel dominantly in the kerosene range. Benzene, naphthalene and TPH as diesel have exceeded DEQ Risk Based Concentrations in groundwater from site monitoring wells.

Pathways:

Groundwater is shallow in the site vicinity (4 - 6 feet), and flow direction is relatively steep and to the west. Excavation worker exposure to groundwater is primary pathway of concern.

Environmental/Health
Threats:

Status of Investigative
or Remedial Action:

(3/12/96 GMW/SAS) Partial source soil removals occurred after the January 1992 jet fuel release and the August 1995 UST decommissioning. A contractor estimated in 1992 that approximately 4,500 yards of contaminated soil remained in and around the above-ground tanks. The site has nine perimeter monitoring wells that have been sampled on an irregular basis for TPH/BTEX.

The DEQ Leaking Underground Storage Tank Program used log #26-89-0012 to transfer project responsibility to DEQ Cleanup Division for the site as release sources include a UST, ASTs, and a pipeline.

DEQ Site Assessment has concluded from its evaluation of the tank farm facility that the owner or operator should characterize soil contamination and evaluate remedial options to prevent further groundwater degradation. Groundwater monitoring should also continue. These further actions should be addressed under VCP guidance. The site is a medium priority, and has been added to the Confirmed Release List.

Data Sources:

NWR LUST log #26-89-0012 indicates administrative project transfer to DEQ's Cleanup Program.

2015 DEQ. Summary Report of ASIG's Bulk Fuel Storage Facility Portland International Airport. ECSI # 1832/5848 March 13, 2015

2014 Advanced Remediation Technologies, Inc. (ART). Summary Report of ASIG Bulk Fuel Storage Facility ECSI 1832/5848 (and three other projects March 31, 2013

2012 Ash Creek Associates/APEX, Land and Beneficial Water Use Survey Update Portland International Airport Portland Oregon. December 12, 2012

2012 Advanced Remediation Technology, ASIG PDX Fuel Storage Investigation (emailed workplan). September 14, 2012

2002 DEQ, Bulk Fuel Storage Facility Portland International Airport, Request for Expanded Preliminary Assessment. July 9, 2002

1990 Chevron Pipe Line Company, Portland Airport, Corrective Action Plan. December 20, 1990

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
BENZENE	Groundwater	130 ppb	3/3/1992
ETHYLBENZENE	Groundwater	400 ppb	3/3/1992
ETHYLBENZENE	Soil	6 ppm	8/17/1995

PETROLEUM HYDROCARBONS	Soil	31,000 ppm jet fuel	8/17/1995
TOLUENE	Groundwater	830 ppb	3/3/1992
XYLENES	Groundwater	2,900 ppb	3/3/1992
XYLENES	Soil	6 ppm	8/17/1995

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
No Further Action (Conditional) (Primary Action)	01/28/2020	01/28/2020	<u>Kenneth Thiessen</u> (mailto:Kenneth.THIESSEN@deq.oregon.gov)	
<u>View Full Report Showing Action History</u> (ecsdetailfull.asp?seqnbr=1832#actions)				

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Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 2010, US Army COE - Bradford Island Landfill

Site Photos

Click to View Photo	Picture Date	Caption	Size
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6329&siteID=2010)	01/15/2008	Removal of electrical equipment from the Columbia River, near Bradford Island, 2002.	47 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6330&siteID=2010)	01/15/2008	Equipment used during dredging of PCB-contaminated sediment, Oct. 2007.	152 Kb

General Site Information

Site ID: 2010	Site Name: US Army COE - Bradford Island Landfill	CERCLIS No: 1002228
Address:	Bonneville Lock & Dam Bonneville	
	County: Multnomah	Region: Northwest
Other location information:	Former landfill located at eastern tip of Bradford Island, which is the middle of three islands within the Bonneville Lock & Dam complex.	
Investigation Status:	Listed on CRL or Inventory	
	Brownfield Site: No	NPL Site: Yes
	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 2N , 7E , 22	Tax Lots:
	Latitude: 45.6422 deg.	Longitude: -121.935 deg.
		Site Size: Approx. 2 ac.
Other Site Names:		

Site Characteristics

General Site
Description:

Bonneville Dam is located at river mile 146. The Columbia River at the Bonneville Dam is divided into three channels by two islands, Bradford Island and Cascade Island. The Bradford Island Landfill is less than an acre in size and is located at the northeastern tip of the island upstream of the dam. In addition to the landfill, investigation activities have also included a former pistol range and sandblasting operations located on the eastern third of Bradford Island.

Site History:

The U.S. Army Corp of Engineers maintained an unregulated landfill at the eastern tip of Bradford Island for approximately 40 years until 1983.

Contamination
Information:

(GMW 2/26/97) During a 1996 internal environmental audit of Bonneville Dam, the Corps determined that this former unregulated landfill, which closed in about 1983, could pose threats to human health and the environment. Operated for a period of about 40 years, the landfill is thought to have been used for the disposal of domestic refuse; switchgear and cables; oil & grease; scrap metals, mercury vapor lamps; and possibly pesticide residues. The Corps conducted initial soil, groundwater and sediment investigation in August and September 1998. VOCs were detected in groundwater; petroleum, metals, PCBs, and pesticides were detected in soil.

(4/19/00 MJM/VCP) During a groundwater seep survey in March 2000, the USACE contractor found a large (approx. 35 lbs) light ballast in the river near the edge of the landfill. A second ballast was subsequently found by USACE staff on the island/landfill slope above the river. Both ballasts were intact. Testing showed that they contained PCBs.

(1/19/01 MJM/VCP) The USACE conducted a sonar and diver survey of the river bottom adjacent to the landfill. Three areas of debris were identified which included a number of pieces of electrical equipment. Representative pieces (capacitors, ballasts, and lightning arrestors) were recovered by divers and tested for PCBs. All electrical equipment tested contained PCBs with typical concentrations ranging between 8 - 12 mg/kg. One recovered capacitor contained residual oil containing 200,000 mg/kg PCBs.

(5/7/01 MJM/VCP) In December 2000, divers recovered approximately 60 electrical items from the eastern-most debris area. Recovered items included one capacitor, post insulators, lightning arrestors and electrical panels. Sediment samples from the eastern-most debris area contained PCB levels ranging from 0.15 to 8.3 mg/kg.

(1/6/03 MJM/VCP) Additional sampling in May 2001, detected PCB levels up to 23.9 mg/kg in sediment, 3.8 mg/kg in clams, and 75.6 mg/kg in crayfish tissue.

(3/16/22 MTP) In 2002 the USACE completed removal of PCB-containing electrical equipment disposed of in the Columbia River along the NE shore of Bradford Island. Sediments samples collected in the Spring of 2003 from the electrical equipment disposal areas detected PCBs (Aroclor 1254) up to 690 mg/kg. Lower levels of PCBs, generally less than 2 mg/kg were detected upstream of the dam spillway along the north shore and along the east and southeastern portions of Bradford Island.

In October 2007, sediment contaminated with PCBs was dredged from the bottom of the river in the areas where the electrical equipment was found. The Army Corps of Engineers sampled sediment, clams and smallmouth bass in August 2011 to assess the effectiveness of the sediment dredging. The results indicate that sediment dredging was not sufficient to address this problem.

Smallmouth bass were collected in the forebay (near Bradford Island) and in an upstream reference area. Six clam samples and seven sediment samples were collected from the forebay. The results showed that, as in the past, PCBs are the primary contaminants of concern. Of the 19 fish samples collected from the forebay, PCB concentrations in four of the fish were extremely high, up to 183,000 parts per billion. A safe level is considered less than one part per billion. The other 15 fish from the forebay had PCB concentrations ranging from 15 to 277 parts per billion. These concentrations are above the safe level, but are similar to PCB concentrations in the 19 fish found in the reference area.

Manner and Time of Release:

Hazardous Substances/Waste Types:

Petroleum hydrocarbons, metals, PCBs, VOCs, and pesticides.

Pathways:

The boundaries of the landfill abut the Columbia River, along the northern and eastern edge of Bradford Island. Primary pathways for contamination are landfill soil-to-surface water, groundwater-to-surface water, and ecological effects from contaminated sediment. Additionally, there may be at least five domestic/community wells within 0.5 mile of the landfill - one of these wells, located within 0.25 mile of the landfill, supplies drinking water to the Bradford Island Visitor Center. This well is about 185 feet deep.

Environmental/Health Threats:

Ecological receptors in the Columbia River and a drinking water well on Bradford Island are the primary targets for possible contamination originating from the site. Based on the levels of PCBs detected in local clams and crayfish, the Oregon Department of Human Resources issued an advisory to avoid harvesting and eating shellfish and crayfish between Bonneville Dam and Ruckel Creek at river mile 147.

Status of Investigative
or Remedial Action:

Site Assessment recommends a remedial investigation to determine what contaminants may be present in the landfill, the degree to which they may be migrating, and the potential for such contaminants to affect human health and the environment. Further state action at the site is a medium priority. (3/31/98 MJM/VCP) US Army COE signed letter agreement with the Voluntary Cleanup Program to perform a Preliminary Assessment/Site Investigation on February 18, 1997. (8/26/98 MJM/VCP) A Site Investigation workplan to sample landfill soils, groundwater and adjacent Columbia River sediments was completed in early August 1998. Monitoring wells were constructed and test pits excavated at the site in mid-August 1998. (7/19/99 MJM/VCP) Results of this investigation are documented in a December 1998 site inspection report. (9/27/00 MJM/VCP) A second phase of investigation was conducted in the fall of 1999. A workplan for stabilizing the north landfill slope and pulling landfill debris away from the Columbia River is in preparation. (1/19/01 MJM/VCP) The USACE initiated recovery efforts in December 2000 to remove all electrical equipment from the river and collect initial sediment samples for PCB testing. (5/7/01 MJM/VCP) Recovery was not completed because of weather. Given the observations during December 2000 recovery efforts, US Fish and Wildlife requested additional site characterization to determine if engineering controls will be needed to prevent the dispersion of sediment before recovery work resumes. In May 2001, additional sediment samples were collected along with clams, crayfish, and water-column samples. Semi-permeable membrane devices were also deployed to sample available PCBs in the water column. (11/21/01 MJM/VCP) The USACE initiated final characterization activities in the landfill in September 2001. Activities include additional soil and debris characterization, construction of groundwater monitoring wells and geophysical surveys. (1/6/03 MJM/VCP) Based on these test results, it was concluded that the remaining electrical equipment is probably an active source of PCBs to the environment and a work plan to remove the equipment was agreed upon. The remaining electrical equipment was removed in February/March 2002.

(4/9/04 MJM/VCP) In the spring of 2003, the USACE collected a large number of sediment and clam samples above the Dam following a DEQ approved work plan. The purpose of this sampling was to:

1. Determine the post equipment removal level of PCBs in the disposal area sediments.
2. Determine the nature and extent of PCBs in sediment above the Dam.
3. Quantify the level of PCBs in sediment, if any, entering the forebay above the Dam from upriver.
4. Screen areas above the dam for PCBs where sediment from the disposal areas may have been eroded and redeposited.

Analysis of sediment and clam tissue samples is being performed in three phases. Phase I and II sediment analysis and Phase III clam tissue analysis. The final report summarizing all of the sample data is scheduled to be completed in August 2004. Analysis of Phase I and II sediment data, completed in April 2004, showed the following:

1. Sediment samples collected 3,000 to 4,000 feet upstream from Bradford Island did not contain detectable levels of PCBs.
2. Sediment adjacent to Bradford Island is impacted by PCBs upstream of the Bonneville Dam Spillway along the north shore of Bradford Island and along the east and southeastern portions of the island.
3. Except for the south side of Bradford Island, PCBs were generally not detected in areas identified as potential deposition points above the Dam for sediment eroded from

equipment disposal areas.

PCB levels in sediment adjacent to Bradford Island are high enough that the Corps and DEQ are evaluating options for an interim cleanup (e.g., sediment removal and capping).

(1-15-08, B. Schwarz) In October 2007, sediment contaminated with PCBs was dredged from the bottom of the river in the areas where the electrical equipment was found.

(April 7, 2009, Bob Schwarz) The risk assessment for this site is underway, and is scheduled to be completed by the end of 2010. It will evaluate risk associated with in-water and upland contamination sources.

(July 31, 2013, Bob Schwarz) The Army Corps of Engineers sampled sediment, clams and smallmouth bass in August 2011. The purpose of this sampling was to assess the effectiveness of the sediment dredging conducted in 2007. These results indicate that the sediment dredging was not sufficient to address this problem.

Nineteen bass were collected in the forebay (near Bradford Island) and 19 bass were collected in an upstream reference area. Six clam samples and seven sediment samples were collected from the forebay.

These results showed that, as in the past, PCBs are the primary contaminants of concern. Of the 19 fish samples collected from the forebay, PCB concentrations in four of the fish were extremely high, up to 183 parts per million. A safe level is considered less than one part per billion. The other 15 fish from the forebay had PCB concentrations ranging from 15 to 277 parts per billion. These concentrations are above the safe level, but are similar to PCB concentrations in the 19 fish found in the reference area.

Work at this site was delayed because the Corps had no funding for the site in fiscal year 2012. Funding has been restored. The Army Corps is conducting a feasibility study to identify and evaluate additional remedial measures to reduce contaminant levels in the Columbia River near Bradford Island.

(B Schwarz, 10-23-2019) The Army Corps prepared a remedial investigation report in June 2012. The report can be found here: <https://www.oregon.gov/deq/Hazards-and-Cleanup/CleanupSites/Pages/Bradford-Island.aspx>.

In August 2017, the Corps completed a feasibility study for the four upland areas (landfill, pistol range, bulb slope and sandblast area). A copy is attached. Based on this study, the Corps plans to remove the landfill and dispose of the waste at a permitted offsite landfill. They plan to remove surface soil at the pistol range and then cover the area with clean soil. The feasibility study concluded that no remediation is required for the sandblast area or bulb slope. DEQ and other members of the Technical Advisory Group (TAG) disagreed with this conclusion. In response, the Corps proposed to address these areas for the purpose of source control, despite their conclusion that this work is not required to meet CERCLA requirements. The extent of work at the sandblast area and the bulb slope are still being evaluated.

As of October 2019, the Corps plans to do a cultural resource survey, which is needed prior to excavation at the landfill and pistol range. The Corps also plans to sample Columbia River water in the affected area of the river, using polyethylene passive

samplers. Other work is on hold due to cuts in federal funding.

On September 18, 2019, the Corps terminated its Voluntary Cleanup Program agreement with DEQ.

(5/24/21 MTP) In an attempt to further identifying the location of remaining PCB contamination, passive samplers were deployed in the Columbia River in January, 2020. The results are being evaluated prior to deciding on additional analyses. Later in 2020, smallmouth bass, clams, and crayfish were collected and analyzed. The results are currently being evaluated.

On October 10, 2019, DEQ, Washington Department of Ecology, and the Yakama Nation submitted a letter to USEPA requesting that EPA place Bradford Island on the National Priorities List. EPA did not list the site on the NPL in 2020. On February 24, 2021, DEQ, Washington Department of Ecology, and the Yakama Nation renewed their request to EPA. In September 2021, EPA proposed the site for the NPL. EPA added Bradford Island to the NPL on March 16, 2022.

Data Sources:

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
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REMEDIAL INVESTIGATION (Primary Action)	01/01/1999		Michael Poulsen (mailto:Mike.POULSEN@deq.oregon.gov)	VCS
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[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=2010#actions\)](#)

Key to Certain Acronyms and Terms in this Report:

- **CERCLIS No.:** The U.S. EPA's Hazardous Waste Site identification number, shown only if EPA has been involved at the site.
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- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are

unable or unwilling to use their own resources for cleanup.

- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting Michael Poulsen at the Northwest regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>) or via email at mike.poulsen@deq.oregon.gov (<mailto:Mike.POULSEN@deq.oregon.gov>). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (<mailto:ximena.cruzcuevas@deq.state.or.us>) or contact the Northwest regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 2139, Suspected Buried Munitions Site - Port of Portland

General Site Information

Site ID: 2139	Site Name: Suspected Buried Munitions Site - Port of Portland	CERCLIS No:
Address:	NE Marine DR & NE 33rd Dr. Portland 97211	
	County: Multnomah	Region: Northwest
Other location information:	NW corner of Portland Airport	
Investigation Status:	No further action required	
	Brownfield Site: No	NPL Site: No
	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 1N , 1E , 1	Tax Lots:
	Latitude: 45.5988 deg.	Longitude: -122.6333 deg.
		Site Size: 165.5 acres
Other Site Names:	Port of Portland - Former Artillery Area Portland Air Base FUDS #F10OR0538	

Site Characteristics

General Site Description:	The Portland Air Base FUDS was centered on the current location of the runways of Portland International Airport. A munitions supply site was located in the far northwest corner of the current airport property, south of North Marine Drive, between NE 33rd and NE 47th Avenues. The potential burial site is 79 acres of low grassland with minor wetlands. It is located at the west end of Portland runway 10R and includes runway approach lighting.
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Site History:	Construction of the Portland-Columbia Airport began as a Works Progress Administration Project in 1936 and the facility was opened by the Port of Portland as a commercial airport in 1940. Later in the same year the Army made plans to use the airport as a tactical air base. In 1941 the Portland Army Air Base (later known as the Portland Air Base) began operations. Throughout its life as a military air base, commercial air traffic continued. The War Department leased the property from 1941 through 1950 when the excess land was deeded to the Port of Portland. A munitions depot was located in the eastern half of the property. A large quantity of WWII munitions were reportedly buried close to the depot.
Contamination Information:	In July 1989, Donald J. Smith contacted the Oregon Air National Guard (OANG) to report a story relayed to him by his father, Corporal Donald Smith. According to Donald J. Smith, his father was ordered to bury "at least a million rounds of .50-caliber bullets and some fuzed 30-mm aircraft cannon ammunition" shortly after World War II. Corporal Donald Smith and another individual evidently cut a deep trench with a bulldozer and buried the explosives somewhere in the area of the former ordnance storage area. He relayed the story to his son and pointed out the area while driving with him down Marine Dr. His son was not certain of the exact area. According to Roger Rein, Environmental Manager for the OANG, the property at that time belonged to the War Department. The ordnance storage facilities were probably torn down shortly before the Port of Portland took over the property in 1950. Potential contamination would be primarily lead, other metals, and explosives from ammunition.
Manner and Time of Release:	During a 11/20/97 meeting on the Oregon National Guard - Portland Airport #1 site (ECSI #637), Major Roger Rein, Environmental Coordinator for the Oregon Air National Guard (OANG), informed DEQ of this site. In 1989, the OANG received information that munitions may have been buried on the current Portland International Airport property. The burial is reported to have occurred in a trench outside the former munitions storage facility immediately following World War II.
Hazardous Substances/Waste Types:	The .50-caliber small arms, 20-mm and 37-mm cannon artillery would contain propellants and possibly high explosives such as tetryl which is a yellow crystalline explosive used primarily as a primer or detonator. Tetryl degrades into picrates, which are salts of picric acid. Lead from bullets could be a concern as well. Any on-site assessment should be conducted by chemical explosive ordnance technicians. Lead, antimony, copper and zinc are metals that have been detected at other buried munitions sites.
Pathways:	If munitions and explosive of concern (MEC) are present, direct contact for site workers would exist. The site is adjacent to the Columbia River and the Columbia Slough but is isolated by dikes.
Environmental/Health Threats:	

Status of Investigative
or Remedial Action:

(6/20/05 MDK/CU&ER) Geophysical survey conducted in 2003. Report submitted in March 2004, indicates a series of anomalous detections, some of which could not be explained by field evidence. Meeting on March 25, 2005, to visit site and discuss follow-up investigation of select anomalies. Work plan expected mid 2005.

(12/28/06 MDK/CU&ER) Site added to SDMOA contract as of July 1, 2004. A desk top study to explain anomalies identified in the 2003 Geophysical investigation was proposed after the March 25, 2005 site visit and submitted on July 22, 2006. The study concluded that no munitions were likely present and that the Port of Portland must use UXO trained personnel for any development work in the site area. DEQ has requested confirmation sampling for areas 3, 4 and 5.

(4/25/11 RKW/CU&ER) On January 5, 2011 a Technical Project Planning meeting (TPP) was held in Port offices at the airport. Representatives of the Port of Portland, US Army Corps of Engineers, DEQ, and Shaw Environmental were present. An exhaustive summary of the project was reviewed by all. It was pointed out that earlier estimates of the volume of potential buried munitions had a decimal place error. Rather than up to 21 cubic yards, the volume would have been up to 215 cubic yards. This volume would require a trench approximately 60 feet long by 16 feet wide. This volume of metal munitions would create a very large geophysical signature that was not found in the survey. The possibility of burial east of the ammo dump and west of former 47th street was discussed. A long straight, east-west trending feature in a 1948 air photo was examined but it was concluded that feature's perfect symmetry did not suggest a bulldozer burial scar. The participants concluded that based on available evidence neither the potential burial area nor the "shoot-in butt", now under the terminal building and up to 15 feet of fill, represented a threat.

Data Sources:

November 20, 1997 meeting with Roger Rein, Environmental Manager for the Oregon Air National Guard - at this meeting, Mr. Rein provided DEQ with maps of the location of the former Ordnance Storage Area and suspected ordnance burial area. Port of Portland representatives were also present at this meeting.

U.S. Army Corps of Engineers (USACE), Rock Island District, "Defense Environmental Restoration Program for Formerly Used Defense Sites, Ordnance and Explosive, Archives Search Report, Findings (1 of 2) and Conclusion and Recommendations (2 of 2) for the Portland Army Air Base, Multnomah County, Oregon, Project Number F10OR053801," February 1999.

Hahn and Associates, Inc. (HAI), "Summary of Investigation, Research of Suspected Ammunition Disposal Site, Portland International Airport, Portland, Oregon, (DRAFT)," May 11, 1998.

U.S. Army Corps of Engineers (USACE), Seattle District, "Non-Time Critical Geophysical Investigation at the Former Portland Army Air Base," January 2004.

Geo-Centers, Inc., "Final Report, Non-Time Critical Geophysical Investigation at the Former Portland Army Air Base, Portland, Oregon," March 1, 2004.

U.S. Army Corps of Engineers (USACE), Seattle District, "Finding of Desktop Study, Ordnance and Explosives Site Inspection, Former Portland Air Base, Portland, Oregon," July 17, 2005.

Shaw Environmental, Final Technical Project Planning Memorandum, Portland Air Base, FUDS Property No. F10OR0538, Multnomah County, Oregon, May 2011.

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
No information is available			

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
NO FURTHER STATE ACTION REQUIRED (Primary Action)	10/08/2014	10/08/2014	Robert Williams	FUD

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For more information on this site contact the [Northwest regional office](#) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 2153, Wyeth Tie-Treating Plant (Former)

Site Photos			
Click to View Photo	Picture Date	Caption	Size
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=5380&siteID=2153)	05/09/2001	Sample location looking east.	962 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=5381&siteID=2153)	05/09/2001	DEQ's John Dadoly marking sample location.	896 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=5383&siteID=2153)	05/09/2001	Rail line.	803 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=5388&siteID=2153)	05/09/2001	Rail line looking east.	677 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=5389&siteID=2153)	05/09/2001	Rail line looking west.	955 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=5390&siteID=2153)	05/09/2001	Rail line with Wind Mountain in the background.	812 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=254&siteID=2153)	09/20/1999	DEQ's Joe Mulusky and Dan Crouse sampling soil and groundwater with DEQ's PushProbe.	67 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=255&siteID=2153)	09/21/1999	Soil sample near former dip tank.	68 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=256&siteID=2153)	09/21/1999	Former dip tank.	64 Kb

[View Photo](#)

(<http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=253&siteID=2153>)

09/21/1999

Sample location next to former dip tank.

71 Kb

[View Photo](#)

(<http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7032&siteID=2153>)

09/21/1999

DEQ's Dan Crouse preparing to take a sample of a saturated area next to the former dip tank.

794 Kb

General Site Information

Site ID: 2153

Site Name: Wyeth Tie-Treating Plant (Former)

CERCLIS No: 0007647872

Address:

I-84 Milepost 51 (vicinity of) Wyeth

County: Hood river

Region: Eastern

Other location information:

The site is located on the south shore of the Columbia River, about 10 miles west of the town of Hood River.

Investigation Status:

Listed on CRL or Inventory

Brownfield Site: No

NPL Site: No

Orphan Site:
No

Study Area:
No

Property:

Twنشp/Range/Sect: 3N , 8E , 36

Tax Lots:

Latitude: 45.6933 deg.

Longitude: -121.7681 deg.

Site Size: 20 acres (~)

Other Site Names:

UPRR - Wyeth

Union Pacific Railroad

Site Characteristics

General Site Description:

Site History:

The Property was used for treating railroad ties from the early 1880s to 1922. Both creosote/oil and zinc chloride were used at the Property as preservative solutions. Treating equipment was removed after 1922, and the Property has been left vacant, with the exception of the UPRR mainline and siding tracks, during the ensuing years.

Contamination Information:	(12/22/98 DMC/SAS) Site was on the SAS "radar scope" since the early 1990s after being listed as an Abandoned Place "where railroad ties were creosoted" in the U of O's 1976 Atlas of Oregon. The Dalles office was contacted by the Environmental Services section of the Oregon Department of Transportation (ODOT) in 7/97 as part of ODOT's preparation for a field investigation at the Wyeth site. ODOT performed the assessment for the Oregon Parks & Recreation Department. Parks has leased the land from Union Pacific for more than 2 years as part of a plan to develop a park that would integrate an existing camp ground with beach access. The ODOT report confirmed contamination in soil and groundwater and was submitted to DEQ as part of the process to determine if the site would qualify for a DEQ Prospective Purchaser Agreement (PPA). The report was reviewed by the senior engineer for the ER cleanup program and comments were given to Parks at the 4/98 meeting (these comments were specific to completing a remedial investigation (RI) at the site). The site was also screened by ER/SAS to determine a priority for DEQ further action.
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Manner and Time of Release:	Past business practices; time of release circa 1900 to the 1920s.
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Hazardous Substances/Waste Types:	Creosote, total petroleum hydrocarbons (TPH), polynuclear aromatic hydrocarbons (PAHs), arsenic
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Pathways:

The site is in a forested area on the south bank of the Columbia River. Property is fan shaped; topography of the northern half slopes towards the Columbia River with a gradient varying between 3% and 8%; topography of the southern half is relatively flat, draining towards a ditch located alongside the railroad tracks that border the site on the south. The average yearly rainfall for the area is 76.24 inches (most precipitation occurs during the winter months). Soils: Wyeth is located on an alluvium terrace that borders the river, which consists of deposits of sand, gravel and boulders. Columbia River Basalt is beneath the alluvium and consists of a series of basaltic lava flows. The Eagle Creek formation underlies the basalt and consists of volcanic mudflows, pyroclastic deposits, and andesite lava flows. On-site soils consist of a "stratum of medium dense brownish black sand and gravel with rock fragments intermixed with variable portions of brown silt." ODOT encountered rock and refusal at depths of 8 and 12 feet with 2 borings, but generally terminated borings at depths of 16 to 24 feet BGS. Surface Water: The nearest surface water is the Columbia River (about 300 feet north). Gorton Creek is about 1000 feet southwest and Harphans Creek is about 1000 feet east. Both creeks flow into the Columbia River. The site is in Flood Zone A. Groundwater: ODOT encountered groundwater at depths ranging from 16 to 20 feet BGS. Groundwater contamination has been confirmed; however the extent of migration is unknown and depends on the complex subsurface geology. If DNAPL is present, has it been contained by the bathtub effect of a natural pool, migrated deeper into basalt fractures, traveled via a subsurface "funnel" to the adjacent creeks or migrated by a direct hydraulic connection to the river? Air: Site is located across from Wind Mountain in a stretch of the Columbia Gorge noted for strong, consistent winds (generally in easterly and westerly directions). It would be difficult to calculate the distribution that has occurred during the past 60 to 70 years in what amounts to a natural wind tunnel; however, the lack of receptors minimizes inhalation as a pathway of concern. In addition, the area has become more heavily forested during the past 20 to 25 years.

Environmental/Health Threats:

Status of Investigative or Remedial Action:

(12/22/98 DMC/SAS) Parks did not qualify for the PPA because of their status as leasee and explored other avenues with DEQ to continue the project. The site scored a medium priority for further action and has been recommended for a federal preliminary assessment that would include DEQ sampling. If accepted by EPA, work would be scheduled for completion during 1999. There is enough data to confirm the nature of the release, but not enough to adequately define the extent (although the majority of the contamination is believed to be limited to the immediate vicinity of the old concrete dip tank on-site). Hopefully, with a well-defined exposure scenario such as a park, risk can be reduced and controlled by engineering measures and this project can be completed.

(Bob Schwarz, Feb. 8, 2008) See attached staff report and No Further Action letter. E&ES: Restricted use of GW, restricts disturbance of backfilled and capped soil areas, and imposes additional obligations on the property owner with respect to the property. Property was to be developed into a park.

Data Sources:

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
ACENAPHTHENE	Groundwater	<0.5 ug/l	2/23/1998
ACENAPHTHENE	Soil	0.21 mg/kg (up to)	2/23/1998
ACENAPHTHYLENE	Groundwater	5.1 ug/l (up to)	2/23/1998
ACENAPHTHYLENE	Soil	2.7 mg/kg (up to)	2/23/1998
ANTHRACENE	Groundwater	1.2 ug/l (up to)	2/23/1998
ANTHRACENE	Soil	7.6 mg/kg (up to)	2/23/1998
ARSENIC	Groundwater	ND	2/23/1998
ARSENIC	Soil	222 mg/kg (up to)	2/23/1998
BARIUM	Groundwater	0.81 mg/l (up to)	2/23/1998
BARIUM	Soil	643 mg/kg (up to)	2/23/1998
BENZO(a)ANTHRACENE	Groundwater	16 ug/l (up to)	2/23/1998
BENZO(a)ANTHRACENE	Soil	11 mg/kg (up to)	2/23/1998
BENZO(a)ANTHRACENE	Soil	1.7 mg/kg (up to)	2/23/1998
BENZO(a)PYRENE	Groundwater	16 ug/l (up to)	2/23/1998
BENZO(a)PYRENE	Soil	9.7 mg/kg (up to)	2/23/1998
BENZO(a)PYRENE	Soil	1.93 mg/kg (up to)	2/23/1998
BENZO(b)FLUORANTHENE	Groundwater	18 ug/l (up to)	2/23/1998
BENZO(b)FLUORANTHENE	Soil	14.1 mg/kg (up to)	2/23/1998
BENZO(b)FLUORANTHENE	Soil	2.16 mg/kg (up to)	2/23/1998
BENZO(ghi)PERYLENE	Groundwater	4.4 ug/l (up to)	2/23/1998
BENZO(ghi)PERYLENE	Soil	2.9 mg/kg (up to)	2/23/1998
BENZO(k)FLUORANTHENE	Groundwater	14 ug/l (up to)	2/23/1998

BENZO(k)FLUORANTHENE	Soil	9.5 mg/kg (up to)	2/23/1998
BENZO(k)FLUORANTHENE	Soil	1.6 mg/kg (up to)	2/23/1998
CADMIUM	Groundwater	ND	2/23/1998
CADMIUM	Soil	NT - <0.02 mg/kg	2/23/1998
CHROMIUM	Groundwater	ND	2/23/1998
CHROMIUM	Soil	7.8 mg/kg (up to)	2/23/1998
CHRYSENE	Groundwater	23 ug/l (up to)	2/23/1998
CHRYSENE	Soil	11 mg/kg (up to)	2/23/1998
CHRYSENE	Soil	2.29 mg/kg (up to)	2/23/1998
DIBENZO(a,h)ANTHRACENE	Groundwater	2.2 ug/l (up to)	2/23/1998
DIBENZO(a,h)ANTHRACENE	Soil	2.5 mg/kg (up to)	2/23/1998
DIBENZO(a,h)ANTHRACENE	Soil	0.25 mg/kg (up to)	2/23/1998
FLUORANTHENE	Groundwater	29 ug/l (up to)	2/23/1998
FLUORANTHENE	Soil	23 mg/kg (up to)	2/23/1998
FLUORENE	Groundwater	<0.5 ug/l	2/23/1998
FLUORENE	Soil	0.20 mg/kg (up to)	2/23/1998
INDENO(1,2,3-cd)PYRENE	Groundwater	7.5 ug/l (up to)	2/23/1998
INDENO(1,2,3-cd)PYRENE	Soil	4.5 mg/kg (up to)	2/23/1998
INDENO(1,2,3-cd)PYRENE	Soil	1.09 mg/kg (up to)	2/23/1998
LEAD	Groundwater	ND	2/23/1998
LEAD	Soil	51.3 mg/kg (up to)	2/23/1998
MERCURY	Groundwater	ND	2/23/1998
MERCURY	Soil	0.133 mg/kg (up to)	2/23/1998
NAPHTHALENE	Groundwater	2.6 ug/l (up to)	2/23/1998
NAPHTHALENE	Soil	2.1 mg/kg (up to)	2/23/1998

PENTACHLOROPHENOL	Groundwater	<0.5 ug/l	2/23/1998
PENTACHLOROPHENOL	Soil	NT; <0.01 - 0.05 mg/kg	2/23/1998
PHENANTHRENE	Groundwater	11 ug/l (up to)	2/23/1998
PHENANTHRENE	Soil	4.9 mg/kg (up to)	2/23/1998
PYRENE	Groundwater	34 ug/l (up to)	2/23/1998
PYRENE	Soil	25 mg/kg (up to)	2/23/1998
SELENIUM	Groundwater	ND	2/23/1998
SELENIUM	Soil	NT - <0.02 mg/kg	2/23/1998
SILVER	Groundwater	ND	2/23/1998
SILVER	Soil	NT - <0.05 mg/kg	2/23/1998
TOTAL PETROLEUM HYDROCARBONS (TPH)	Groundwater	NT - <0.25 mg/l (up to; diesel)	2/23/1998
TOTAL PETROLEUM HYDROCARBONS (TPH)	Groundwater	NT - <0.5 mg/l (up to; heavy oil)	2/23/1998
TOTAL PETROLEUM HYDROCARBONS (TPH)	Soil	170 mg/kg (up to; diesel)	2/23/1998
TOTAL PETROLEUM HYDROCARBONS (TPH)	Soil	330 mg/kg (up to; heavy oil)	2/23/1998
TOTAL PETROLEUM HYDROCARBONS (TPH)	Soil	2500 mg/kg (up to; heavy oil)	2/23/1998
VOLATILE ORGANIC COMPOUNDS (VOC)	Groundwater	ND	2/23/1998

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
No Further Action (Conditional) (Primary Action)	09/30/2004	09/30/2004	<u>Robert Schwarz</u> (mailto:Bob.SCHWARZ@deq.oregon.gov)	VCS
<u>View Full Report Showing Action History (ecsdetailfull.asp?seqnbr=2153#actions)</u>				

Site Environmental Controls

Control Description	Begin Date	End Date	Last Reviewed By	Last Review Date
Easement Equitable Servitude	09/21/2004		Bob Schwarz	09/21/2004
	Comments: E&ES filed with Hood River County Assessor in September 2004 requires: 1) notification and concurrence of DEQ prior to any beneficial use of groundwater; 2) no disturbance of backfilled and capped soil areas; and 3) limitation on use of the site to a park.			
Use Restriction Groundwater	09/21/2004		Bob Schwarz	
	Comments: Notification and concurrence of DEQ prior to any beneficial use of groundwater at the site.			
Cap, engineered	09/21/2004		Bob Schwarz	
	Comments: No disturbances permitted in backfilled and capped soil areas.			

Key to Certain Acronyms and Terms in this Report:

- **CERCLIS No.:** The U.S. EPA's Hazardous Waste Site identification number, shown only if EPA has been involved at the site.
- **Region:** DEQ divides the state into three regions, Eastern, Northwest, and Western; the regional office shown is responsible for site investigation/cleanup.
- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting Robert Schwarz at the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>) or via email at bob.schwarz@deq.oregon.gov (<mailto:Bob.SCHWARZ@deq.oregon.gov>). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (<mailto:ximena.cruzcuevas@deq.state.or.us>) or contact the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 2383, The Dalles Dredge Disposal Site

Site Photos

Click to View Photo	Picture Date	Caption	Size
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=2211&siteID=2383)	04/18/2003	2383 4-18-2003	39 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=2212&siteID=2383)	04/18/2003	2383 4-18-2003	28 Kb

General Site Information

Site ID: 2383	Site Name: The Dalles Dredge Disposal Site	CERCLIS No:
Address:	River RD & Crates WAY (north of) The Dalles 97058	
	County: Wasco	Region: Eastern
Other location information:		
Investigation Status:	No further action required	
	Brownfield Site: No	NPL Site: No
		Orphan Site: No
		Study Area: No
Property:	Twنشp/Range/Sect: 2N , 13E , 28	Tax Lots:
	Latitude: 45.6327 deg.	Longitude: -121.2004 deg.
		Site Size: 10 acres
Other Site Names:		

Site Characteristics

General Site
Description:

Site History:

Contamination Information:

(6/23/99 DMC/SAS) The US Army Corps of Engineers (COE) was contracted in 1992 to dredge several dock and mooring facilities between river mileposts 187 and 191 for the Port of The Dalles. The COE received permission from the Port to use a portion of its land for disposal of the dredged material. During the dredge operation, empty drums believed to have been used as buoys and floats were discovered and placed in the disposal area. EPA required a waste characterization. Only 1 of the 8 drums had hazardous wastes; however, more than 200 additional drums were discovered in the disposal area, and the COE determined that a cleanup was needed.

Manner and Time of Release:

Past disposal practices; time of release unknown.

Hazardous Substances/Waste Types:

PAHs

Pathways:

Site is 0.25 mile east of Chenoweth Creek.

Environmental/Health Threats:

Status of Investigative or Remedial Action:

(6/23/99 DMC/SAS) The COE cleanup was divided into 2 phases. The Phase 1 cleanup for the disposal of potentially hazardous surface drums was conducted between 1/4-8/93. A total of 114 surface drums were excavated, compacted, and disposed of at the Arlington Landfill as a hazardous waste. The Phase II cleanup for the disposal of potentially hazardous subsurface drums was conducted between 5/24-6/4/93. A total of 207 drums were excavated, compacted, and disposed of at the Arlington Landfill as hazardous waste. Verification samples were collected at the completion of Phase II. (7/00 BPM/SAS) The disposal site is a 10-acre parcel and was created in 1993, when The Dalles Marina was dredged. The disposal site was created to receive dredging materials and was located on industrial property owned by the Port of The Dalles. The dredged material was found to contain semi-volatile contaminants consistent with residual creosote. The Corps of Engineers performed cleanup actions and prepared a cleanup report. DEQ's Site Assessment Section, during Spring 2000, reviewed the information gathered on the site. Based on sampling performed during remedial activities, the cleanup was successful and residual contamination is within acceptable levels. The site was proposed for a No Further Action determination and, following a public notice and comment period in June 2000, the NFA became final July 5, 2000.

Data Sources:

Substance Contamination Information

Substance

Media Contaminated

Concentration Level

Date Recorded

No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
NO FURTHER STATE ACTION REQUIRED (Primary Action)	06/01/2000	07/05/2000	Brian McClure	SAS

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Key to Certain Acronyms and Terms in this Report:

- **CERCLIS No.:** The U.S. EPA's Hazardous Waste Site identification number, shown only if EPA has been involved at the site.
- **Region:** DEQ divides the state into three regions, Eastern, Northwest, and Western; the regional office shown is responsible for site investigation/cleanup.
- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

For more information on this site contact the [Eastern regional office](#) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 2413, The Dalles Marina

General Site Information

Site ID: 2413	Site Name: The Dalles Marina	CERCLIS No:
Address:	Boat Basin Rd. The Dalles 97058	
	County: Wasco	Region: Eastern
Other location information:	Just northeast of I-84, exit 85.	
Investigation Status:	Suspect site requiring further investigation	
	Brownfield Site: No	NPL Site: No
		Orphan Site: No
		Study Area: No
Property:	Twنشp/Range/Sect: 1N , 13E , 3	Tax Lots:
	Latitude: 45.6015 deg.	Longitude: -121.1718 deg.
		Site Size:
Other Site Names:		

Site Characteristics

General Site Description:

Site History:

Contamination Information: (3/2/00 DMC/SAS) Brian McClure, ER/SRS, is performing an assessment of the dredge material in the marina for ER/SAS based on reports from the Army Corps of Engineers (COE) that the dredgings may contain contaminants.

Manner and Time of Release:

Hazardous Substances/Waste Types:

Pathways:

Environmental/Health

Threats:

Status of Investigative or
Remedial Action:

Data Sources:

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
No information is available			

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Site Screening recommended (EV) (Primary Action)	03/02/2000	03/02/2000	Brian McClure	SAS

[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=2413#actions\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx#actionhistory)

Key to Certain Acronyms and Terms in this Report:

- **CERCLIS No.:** The U.S. EPA's Hazardous Waste Site identification number, shown only if EPA has been involved at the site.
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- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

For more information on this site contact the [Eastern regional office](https://www.oregon.gov/DEQ/Pages/Offices.aspx)
(<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 2634, ASIG Jet Fuel Transmission Line

<u>General Site Information</u>				
Site ID: 2634	Site Name: ASIG Jet Fuel Transmission Line		CERCLIS No:	
Address:	Located in NW corner of PDX airport grounds Portland 97218			
	County: Multnomah		Region: Northwest	
Other location information:	Portland International Airport			
Investigation Status:	No further action required			
	Brownfield Site: No	NPL Site: No	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 1N , 2E , 6		Tax Lots:	
	Latitude: 45.5966 deg.	Longitude: -122.6125 deg.	Site Size:	
Other Site Names:	Aircraft Services International, Inc.			
	ASII Jet Fuel Transmission Line			

<u>Site Characteristics</u>	
General Site Description:	
Site History:	

Contamination Information:	(7/17/00 MTP/SAP) In August 1997, Aircraft Service International, Inc. (ASII) personnel collected a storm water sample exhibiting a petroleum sheen from approximately 50 feet northeast of a 20 inch jet fuel line. Because jet fuel (240 ppb) was detected in the sample, ASII consultants conducted a field investigation in the vicinity of the fuel line to assess the extent of petroleum releases. A total of 91 direct-push borings were advanced over a 1,500 foot stretch of the pipeline. No laboratory samples were collected. Localized occurrences of free product were suggested by highly elevated photoionization detector (PID) readings and direct observations at each of the six or more low-point valves. A plume that extends to the northeast across the storm drain line may have originated from another source. It was concluded that the contamination resulted from small cumulative releases and poor housekeeping. (5/24/02) Site screening determined that site was a high priority for further investigation. Apparent free product was present and no analysis of extent of contamination has been performed. At DEQ's request, ASIG completed additional characterization work in November and December 2003 to determine the extent and magnitude of contamination identified in 1997. ART completed twenty-five temporary borings along the transmission line, near the low point valves, where impacts had previously been identified. Soil and groundwater samples were collected in the areas of low point valves 2, 4, 6, 10, 12, and 14 (see Figure 2). Initial borehole locations were selected based on the 1997 investigation results. Field observations were used to make decisions regarding subsequent borehole locations, to delineate the lateral extent of contamination. Diesel range petroleum hydrocarbons were detected in nine samples at a concentration of 65.3 to 1460 milligrams per kilograms (mg/kg). Benzene was not detected above the method reporting limit (MRL) in the twelve samples tested for BTEX. Toluene was detected in two samples at a maximum concentration of 0.124 mg/kg. Ethylbenzene was detected in three samples at a maximum concentration of 0.61 mg/kg. Total xylene was detected in five samples at a maximum concentration of 1.45 mg/kg. Low concentrations of PAHs were detected in four of the twelve samples tested for PAHs. Six groundwater samples were collected and tested for BTEX and PAHs by the methods cited above. Benzene was not detected above the MRL. Toluene was detected in four samples at concentrations of 0.594 to 1.00 ug/L. Ethylbenzene was detected in one sample at 1.09 ug/L. Total xylene was detected in four samples at concentrations of 1.42 to 7.35 ug/L. Low concentrations of PAHs were detected in three samples.
Manner and Time of Release:	Small releases over time from valves in a 10-inch jet fuel line.
Hazardous Substances/Waste Types:	Petroleum, PAHs
Pathways:	Shallow groundwater discharge to surface water via subsurface stormwater pipe. Subsurface soil to shallow groundwater. There are no known groundwater users downgradient of the site.
Environmental/Health Threats:	

Status of Investigative
or Remedial Action:

(7/17/00 MTP/SAP) Inactive. ASII indicated to DEQ in 1997 that a siphon dam would be maintained in the storm water line, and the absorbent boom at the outfall would be monitored. The valves in the transmission lines were to be replaced, and the storm drain was to be relined to prevent subsurface contaminant migration. (5/24/02 CWH/SAS) Site screening performed. High priority for Site Investigation. (5/6/03 AC/VCP) Work plan for Expanded Preliminary Assessment (XPA) investigation received April 7, 2003.

(5/9/05 AC/VCP) DEQ has made an NFA determination for this site. This NFA and de-listing decision does not apply to the adjacent cleanup site known as the Bulk Fuel Storage Facility (aka ASII/Chevron Tank Farm), ESCI #1832. DEQ has assigned ECSI #1832 a medium priority for further evaluation.

Data Sources:

1) DEQ NWR Spill File (OERS 97-2144). 2) "Site Characterization of Jet Fuel Transmission Line Area, August and September 1997, Portland International Airport, Portland, Oregon", EMCON, November 5, 1997. 3) Bulk Fuel Storage Facility ECSI File #1832. Advanced Remediation Technologies, Inc., 2004. Results of the Expanded Preliminary Assessment of Jet A Fuel Hydrant Line from ASIG's Bulk Fuel Storage Facility, Portland International Airport, Portland, Oregon (ECSI No. 2634). April 5, 2004. Advanced Remediation Technologies, Inc., 2003a. Workplan for Additional Subsurface Assessment and Evaluation of Exposure for Jet A Fuel Transmission Line from ASIG's Bulk Fuel Storage Facility, Portland International Airport, Portland, Oregon. February 24, 2003. Advanced Remediation Technologies, Inc., 2003b. Workplan for Additional Subsurface Assessment and Evaluation of Exposure for Jet A Fuel Transmission Line from ASIG's Bulk Fuel Storage Facility, Portland International Airport, Portland, Oregon. November 11, 2003. EMCON, Inc., 1997. Site Characterization of Jet Fuel Transmission Line Area, August and September 1997, Portland International Airport, Portland Oregon. November 5, 1997. Hart Crowser, Inc., 2004b. Land and Beneficial Water Use Survey, Portland International Airport, Portland, Oregon. August 11, 2004. Port of Portland, 2000. Portland International Airport Stormwater Pollution Control Plan Map. January 2000. Vista Research, Inc., 2002. Integrity Tests: Portland International Airport, Prepared for Aircraft Service International Group, Portland International Airport. September 16, 2002.

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
TOTAL PETROLEUM HYDROCARBONS (TPH)	Other	PID measurements acquired in boreholes along area of fuel line.	9/10/1997
TOTAL PETROLEUM HYDROCARBONS (TPH)	Surface Water	240 ppb	9/1/1997

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
NO FURTHER STATE ACTION REQUIRED (Primary Action)	05/09/2005	05/09/2005	Anna Coates (mailto:Anna.COATES@deq.oregon.gov)	VCP

[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=2634#actions\)](#)

Key to Certain Acronyms and Terms in this Report:

- **CERCLIS No.:** The U.S. EPA's Hazardous Waste Site identification number, shown only if EPA has been involved at the site.
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- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting Anna Coates at the [Northwest regional office](#) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>) or via email at anna.coates@deq.oregon.gov (<mailto:Anna.COATES@deq.oregon.gov>). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (<mailto:ximena.cruzcuevas@deq.state.or.us>) or contact the [Northwest regional office](#) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 2786, Don's Dry Cleaners & Laundry

Site Photos

Click to View Photo	Picture Date	Caption	Size
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=1975&siteID=2786)	06/11/2003	2786_6/11/03	31 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=1976&siteID=2786)	06/11/2003	2786_6/11/03	32 Kb

General Site Information

Site ID: 2786	Site Name: Don's Dry Cleaners & Laundry	CERCLIS No:
Address:	412 Washington St. The Dalles 97058	
	County: Wasco	Region: Eastern
Other location information:		
Investigation Status:	Suspect site requiring further investigation	
	Brownfield Site: No	NPL Site: No
		Orphan Site: No
		Study Area: No
Property:	Twnshp/Range/Sect: 1N , 13E , 3	Tax Lots:
	Latitude: 45.6001 deg.	Longitude: -121.1826 deg.
		Site Size:
Other Site Names:	Webbers Cleaners & Tailors	

Site Characteristics

General Site Description:

Site History: Site opened as Webbers Cleaners & Tailors on 8/29/38 at the current location according to an article in The Dalles Chronicle. The article also provides a description of the two connected buildings.

Contamination Information: (1/5/01 DMC/SAS) Site added to database for tracking purposes only.

Manner and Time of Release:

Hazardous Substances/Waste Types: dry cleaning solvents, no release confirmed

Pathways:

Environmental/Health Threats:

Status of Investigative or Remedial Action: (1/5/01 DMC/SAS) Refer to DEQ Dry Cleaner program for more information.
(11/30/05 DMC/SAS) Site screening in progress.

Data Sources:

1. EPA Site Discovery Lists (5/4/90 & 2/28/91).
2. DEQ/HW database.
3. Polk City Directories (1948, 1958, 1968, 1978, 1988).
4. Columbia Gorge Phonebook (1999).
5. The Dalles Chronicle (9/1/38).

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Site Screening recommended (EV) (Primary Action)	12/05/2012	12/05/2012	<u>Kathleen Daugherty</u> (mailto:Katie.DAUGHERTY@deg.oregon.gov)	SAS

[View Full Report Showing Action History \(ecsdetailfull.asp?seqnbr=2786#actions\)](http://ecsdetailfull.asp?seqnbr=2786#actions)

Key to Certain Acronyms and Terms in this Report:

- **CERCLIS No.:** The U.S. EPA's Hazardous Waste Site identification number, shown only if EPA has been involved at the site.
- **Region:** DEQ divides the state into three regions, Eastern, Northwest, and Western; the regional office shown is responsible for site investigation/cleanup.
- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting Kathleen Daugherty at the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>) or via email at katie.daugherty@deq.oregon.gov (<mailto:Katie.DAUGHERTY@deq.oregon.gov>). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (<mailto:ximena.cruzcuevas@deq.state.or.us>) or contact the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 2815, Don's Dry Cleaners & Laundry (Former)

General Site Information

Site ID: 2815	Site Name: Don's Dry Cleaners & Laundry (Former)	CERCLIS No:
Address:	620 E 3rd St. The Dalles 97058	
	County: Wasco	Region: Eastern
Other location information:		
Investigation Status:	Suspect site requiring further investigation	
	Brownfield Site: No	NPL Site: No
		Orphan Site: No
		Study Area: No
Property:	Twنشp/Range/Sect: 1N , 13E , 3	Tax Lots:
	Latitude: 45.5986 deg.	Longitude: -121.1787 deg.
		Site Size:
Other Site Names:		

Site Characteristics

General Site Description:

Site History:

Contamination Information: (1/8/01 DMC/SAS) Site added to database for tracking purposes.

Manner and Time of Release:

Hazardous Substances/Waste Types:

Pathways:

Environmental/Health Threats:

Status of Investigative or Remedial Action: (1/8/01 DMC/SAS) Site added to database for tracking purposes.

Data Sources:

1. EPA Site Discovery Lists (5/4/90 & 2/28/91).
2. Polk City Directory (1988).
3. Columbia River Basin Phone Directory (1982-83).

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Site Screening recommended (EV) (Primary Action)	01/08/2001	01/08/2001	Daniel Crouse	SAS

[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=2815#actions\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx)

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- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
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For more information on this site contact the [Eastern regional office](https://www.oregon.gov/DEQ/Pages/Offices.aspx) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 2840, Bowden Heating Oil (Former)

General Site Information

Site ID: 2840	Site Name: Bowden Heating Oil (Former)	CERCLIS No:
Address:	208 Laughlin St. The Dalles 97058	
	County: Wasco	Region: Eastern
Other location information:		
Investigation Status:	Suspect site requiring further investigation	
	Brownfield Site: No	NPL Site: No
	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 1N , 13E , 3	Tax Lots:
	Latitude: 45.6003 deg.	Longitude: -121.1787 deg.
	Site Size:	
Other Site Names:	Standard Oil Heating - The Dalles	

Site Characteristics

General Site Description:

Site History:

Contamination Information: (1/10/01 DMC/SAS) Site added to database for tracking purposes as a former aboveground storage tank (AST) facility.

(2/15/07 DMC/SAS) Site was listed as Bowden Heating Oil Service selling Standard Heating Oils in 1957.

Manner and Time of Release:

Hazardous Substances/Waste Types:

Pathways:

Environmental/Health Threats:

Status of Investigative or Remedial Action: (1/10/01 DMC/SAS) Site added to database for tracking purposes as a former aboveground storage tank (AST) facility.

Data Sources: 1. Polk City Directories.
2. The Dalles Chronicle ad (10/2/57).

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
No information is available			

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Site Screening recommended (EV) (Primary Action)	01/10/2001	01/10/2001	Daniel Crouse	SAS

[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=2840#actions\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx)

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- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
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For more information on this site contact the [Eastern regional office](https://www.oregon.gov/DEQ/Pages/Offices.aspx) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 2844, Walker Cleaners - E 3rd St. (Former)

General Site Information

Site ID: 2844	Site Name: Walker Cleaners - E 3rd St. (Former)	CERCLIS No:
Address:	214 E 3rd St. The Dalles 97058	
	County: Wasco	Region: Eastern
Other location information:		
Investigation Status:	Suspect site requiring further investigation	
	Brownfield Site: No	NPL Site: No
		Orphan Site: No
		Study Area: No
Property:	Twنشp/Range/Sect: 1N , 13E , 3	Tax Lots:
	Latitude: 45.6009 deg.	Longitude: -121.182 deg.
		Site Size:
Other Site Names:	Williams Cleaners	

Site Characteristics

General Site Description:

Site History:

Contamination Information: (1/10/01 DMC/SAS) Site added to database for tracking purposes as a former aboveground storage tank (AST) facility.

Manner and Time of Release:

Hazardous Substances/Waste Types:

Pathways:

Environmental/Health Threats:

Status of Investigative or Remedial Action: (1/10/01 DMC/SAS) Site added to database for tracking purposes as a former aboveground storage tank (AST) facility.

Data Sources: 1. Polk City Directories (1948, 1958).

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Site Screening recommended (EV) (Primary Action)	01/10/2001	01/10/2001	Daniel Crouse	SAS

[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=2844#actions\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx)

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- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

For more information on this site contact the [Eastern regional office](https://www.oregon.gov/DEQ/Pages/Offices.aspx) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 3333, Canoe Bay - Contaminated Sediment

Site Photos

Click to View Photo	Picture Date	Caption	Size
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=8321&siteID=3333)	06/06/2019	bank view with vegetation growth	735 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=8318&siteID=3333)	08/03/2013	Slope Stablization Construction	80 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=8319&siteID=3333)	08/20/2013	Slope Stablization Construction	120 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6697&siteID=3333)	09/08/2009	Canoe Bay Site Location	12834 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=8320&siteID=3333)	10/02/2013	Slope Stablization	2120 Kb

General Site Information

Site ID: 3333	Site Name: Canoe Bay - Contaminated Sediment	CERCLIS No: 001002698
Address:	N Hayden Island Dr. Portland 97217	
	County: Multnomah	Region: Northwest
Other location information:	On the southern shore of the Columbia River, at the northeast corner of Township 2 North, Range 1 East, Section 33 (Willamette Meridian), along the central northern side of Hayden Island, within the northern fringe of Portland's municipal boundary.	
Investigation Status:	Listed on CRL or Inventory	
	Brownfield Site: No	NPL Site: No
	Orphan Site: No	Study Area: No

Property:	Twنشp/Range/Sect: 2N , 1E , 33	Tax Lots: 1400	
	Latitude: 45.6196 deg.	Longitude: -122.6922 deg.	Site Size: 7.6 acres

Other Site
Names:

Grandma's Cove

Schooner Creek Boat Works

Inland Sea Maritime Group

Heisley Marine Corp.

Site Characteristics

General Site
Description:

Canoe Bay is a 7.6-acre rectangular embayment of the Columbia River along the central north side of Hayden Island. The river is located to the northeast; Hayden Island Mobile Home Community is on the east side of the bay; Schooner Creek Boat Works, an automobile storage lot and paved boat storage area, and North Hayden Island Drive are along the southwestern edge of the bay. Schooner Creek Boat Works operates from a concrete tilt-up building constructed in 1989. A small scrub-shrub palustrine wetlands area is immediately northwest of the bay. A Burlington Northern Santa Fe Railroad right-of-way and tressel are about 675 feet northwest of the bay. Jantzen Beach Shopping Center is between 1,506 and 3,761 feet southeast of the bay. Interstate Highway 5 and the I-5 Interstate Bridge over the Columbia River are located about 4,210 feet southeast of the bay.

Site History:

Contamination
Information:

Sediments: Sediments directly beneath a Schooner Creek Boat Works dock and adjacent to the shoreline are contaminated with PCBs, PAHs, phthalates, PCP, phenols, DDTs, chlordane, metals (arsenic, cadmium, copper, selenium, zinc), and relatively low concentrations of diesel fuel and oil. The source and full vertical and horizontal extent of sediment contamination have not been defined.

Upland Areas: A sample of residual paint dust collected at the boat repair facility contained PAHs, di-n-butyl phthalate, chloroform, methylene chloride, light aromatic hydrocarbons, and TCLP-extractable barium, cadmium, and lead. Paint dust residues have been observed on graveled surfaces at Schooner Creek Boat Works, and other boat repair wastes have been observed on Canoe Bay's steep southwest embankment at the boat works. Stained soils and stressed vegetation have also been documented at the boat works site. Chemical residues (30 - 60 sq ft area) and stressed vegetation were also observed on the southern portion of the lot west of the boat works, prior to Schooner Creek Boat Works occupying the site. Most of the western lot is now used for automobile storage, although a portion is used for boat storage. DEQ photographed small areas of stressed vegetation along Schooner Creek Boat Works' north fence line during an April 2001 multi-media inspection.

(5/15/04 JLS/VCP) Waste materials, (e.g. broken glass, electrical casings) that apparently resulted from historical dumping by unknown parties are present along the shoreline. Waste material remaining at this time appear to be present primarily on land owned by the Oregon Division of State Lands. A private and City outfall discharge stormwater to Canoe Bay in the vicinity of the ramp to the docks.

(9/9/09, smf) Samplings from an October 2008 EPA Site Insection detected elevated concentrations of metals (especially cadmium) in Canoe Bay sediments in the southern half of the bay. Elevated concentrations of TBT were detected in sediments at the boat dock, as well as in surface soils at the Schooner Creek Boatworks stormwater outfall just westr of the boat dock. Elevated concentrations of several metals were detected in surface soils along the southwest side of Canoe Bay, and in stormwater discharging from outfalls on the northeast and south sides of the bay.

Manner and Time of
Release:

Undefined at this time. Recent boat manufacturing and repair activities by Schooner Creek Boat Works could be a source but significant efforts have been completed by the facility to manage stormwater and current stormwater discharge is meeting permit benchmarks. A city storm drain also discharges to the bay near the Boat Works' stormwater outfall and may be contributing road-related contamination. A previous yacht builder at the site (Heisley Marine) is known to have left behind chemical residues and stressed vegetation prior to Schooner Creek Boat Works' arrival at the site. The detections of DDTs and chlordane in sediments suggest that deposits of riverborne sediments could also be a source, as could be an outfall from the Columbia Blvd. Sewage Treatment Plant to the Columbia River, located about 500 to 700 feet northeast of (downstream from) the bay. Part of the bay also appears to have been backfilled since the 1970s, possibly with Columbia River dredgings, so the bay's backfill may also have contained contaminants. Historical dumping of wastes over the shoreline appears to have resulted in an accumulation of waste materials that appears to have resulted in elevated PCBs and metals on the shoreline. Contaminants associated with the shoreline waste materials appear to have resulted in a localized area of contaminated sediment.

Hazardous
Substances/Waste
Types:

PCBs, PAHs, DDTs, chlordane, metals (arsenic, barium, cadmium, copper, iron, lead, mercury, selenium, zinc), TBT, PCP, other phenols, and phthalates.

Pathways:

Canoe Bay provides seasonal habitat for migratory waterfowl and migratory songbirds, which feed in and around the bay. The bay has been defined as Critical Habitat for Snake R. spring/summer chinook (Threatened species), Snake River fall chinook (Threatened species), and Snake River sockeye salmon (Endangered species) [58 FR 68543, 12/28/93]. A small wetlands area is also located immediately upland from the bay's west shoreline. Metro considers much of Hayden Island west of the BNSF Railroad right-of-way important riparian corridor and wildlife habitat of concern, The City of Portland has a community water supply well less than 1,000 feet SSE of the site.

Environmental/Health
Threats:

Status of Investigative
or Remedial Action:

Site Assessment recommends a high-priority further investigation to determine the full nature and extent of Canoe Bay sediment contamination near SCBW's dock. Because hazardous substances have been released at the site, and concentrations of these substances in sediment are above threshold risk values for aquatic life, it is further recommended that the site be proposed for addition to DEQ's Confirmed Release List and Inventory. (12/6/02 JMA/VCP) Received Intent to Participate in DEQ's Voluntary Cleanup Program in December 2002. Sediment sampling work plan submitted March 2003. DEQ approved with comments provided May 2003. Response to comments submitted June 2003. DEQ acknowledgement provided July 2003. Sediment sampling conducted October 2003. (3/1/04 JLS/CU&ER) Sediment sampling report submitted January 2004. Meeting/site visit held February 2004.

(5/17/04 JLS/VCP) DEQ comments on report provided March 2004. Revised report submitted April 2004. DEQ approval with clarification provided May 2004.

(11/12/04 JLS/CU&LW) DEQ coordinating with City of Portland, Division of State Lands (DSL) and ISMG on next steps.

(11/7/05 JLS/CU&LW) DEQ preparing memo documenting issues and priorities November 2005.

(6/23/09 SAM/SAS) EPA completed a preliminary assessment-March 7, 2008- and determined additional site investigation is warranted.

(11/22/10 SAM/SAS) In late August 2010, after completing a Site Investigation, EPA determined that the site was a low priority for additional federal action and referred the site back to DEQ for state follow-up.

[6/8/11] DEQ prioritized shoreline debris pile cleanup and outfall soil cleanup as primary actions warranted at the site.

[6/11/12] In Fall, 2011, ISMG/SCBW proposed conducting shoreline stabilization to maintain stability for upland infrastructure and incorporate capping of the debris pile and immediately adjacent contamination. Additional shoreline data was collected in February 2012 to help assess shoreline options and a feasibility study was drafted in May 2012.

FS completed in June 2012. Staff report on proposed shoreline stabilization action issued for public comment in July 2012. ROD issued August 2012. Consent Judgement covering DEQ oversight of remedial action and settlement for contamination in Canoe Bay issued for public comment in September 2012. Negotiations with City of Portland for development permit to cover action in the environmental zone adjacent to Canoe Bay completed in Spring 2013. Consent Judgment with DEQ finalized in July 2013.

Remedial Design workplan and associated reports submitted in November 2012. Revised documents, based on DEQ comment and modifications to address City permitting requirements, submitted June 2013.

Shoreline stabilization and capping, and habitat improvement work completed August through November 2013. Project completion report submitted February 2014 and approved March 6, 2014. O&M to establish vegetation on the bank in progress.

Certificate of Completion and NFA letter issued May 2014. (JLS 5/19/14)

Annual monitoring reports submitted 2015, 2016, and 2017.

(10/9/19 KJD/VCP) A sediment sampling event was performed in 2019 to evaluate the effectiveness of the remedy. Overall, the shoreline stabilization and capping components appear to have been effective in reducing contaminated material entering the bay.

Data Sources: Sediment Sampling and Analysis report (March 2004) prepared for ISMG by PBS Engineering and Environmental.

Sediment sampling conducted 1/14/02 as part of planned maintenance dredging at the Schooner Creek Boat Works dock in Canoe Bay.

Sampling & Analysis Plan, Schooner Creek Boat Works, 3233 N. Hayden Island Drive, prepared for Inland Sea Maritime Group LLC by PBS Engineering & Environmental, December 2001.

Analysis of residual paint dust conducted by Schooner Creek Boat Works under the direction of DEQ's Hazardous Waste Program, May 2001 (Notice of Noncompliance, April 26, 2001: failure to perform hazardous waste determination; discharge of paint dust and wood dust to waters of the state).

Geotechnical Engineering Investigation, West Side Vacant Lot, 2755 NE Hayden Island, prepared for Schooner Creek Boat Works by LaVielte Geotechnical, 2/24/99

Geotechnical Engineering Recommendations, Waterfront Slope Stabilization, 2755 N Hayden Island, prepared for Schooner Creek Boat Works by LaVielte Geotechnical, 1/10/00.

Phase I Environmental Site Assessment Update, Schooner Creek Boat Works, 3255 N Hayden Island Drive, Wells Fargo Project Number SF01-11181, prepared for Wells Fargo Bank by P&D Environmental Services, 7/2/01.

Phase I Environmental Site Assessment, Heisley Marine, 2755 N Hayden Island Dr, prepared for US Bank of Oregon by Kleinfelder, Inc., 6/25/98.

Final Canoe Bay Site Inspection Report, prepared by Ecology and Environment, Inc., for USEPA, August 2009.

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
ACENAPHTHENE	Other	16.8 ppm Concentration in residual paint dust	5/1/2001
ACENAPHTHENE	Sediment	4 ppb in Canoe Bay sediment composite (two cores)	1/14/2002
ACENAPHTHYLENE	Other	5.8 ppm Concentration in residual paint dust	5/1/2001
ACENAPHTHYLENE	Sediment	4 ppb in Canoe Bay sediment composites (two 2-core composites)	1/14/2002

ALUMINUM	Sediment	11500 ppm aluminum in Canoe bay sediments at sampling points CB05SD and CB06SD. Aluminum concentrations in Columbia River background sediments generally ranged from 2750 ppm (CR01SD) to 5540 ppm (CR04SD).	10/28/2008 12:30:12 PM
ALUMINUM	Soil	11400 ppm aluminum in surface soils at CB03SS. 12900 ppm aluminum in background soil sample BK01SS.	10/28/2008 8:06:17 AM
AMMONIA NITROGEN	Sediment	219000 ppb in Canoe Bay sediment samples - one core and two 2-core composites	1/14/2002
ANTHRACENE	Sediment	13 ppb in Canoe Bay sediment composites (two 2-core composites)	1/14/2002
ANTIMONY	Sediment	1.53 ppm in Canoe Bay sediment samples (core and two 2-core composites) Detected in analytical method blank at 0.016 ppm	1/14/2002
ARSENIC	Sediment	8.4 ppm arsenic in Canoe Bay sediments at CB06SD (10/28/08). 4.72 ppm arsenic in Canoe Bay sediment composite (two cores; 1/14/02) from 0-7 foot depths. Arsenic concentrations in Columbia River (10/27/08) sediments were 1.3 ppm to 3.1 ppm.	10/28/2008
ARSENIC	Soil	18.9 ppb arsenic in surface soils adjacent to Canoe Bay at CB05SS. 7.8 ppm at CB03SS. 6.7 ppm at CB02SS. Background soils contained 2.89 ppm arsenic.	8/28/2008
BARIUM	Other	0.76 ppm TCLP leachable concentration in residual paint dust	5/1/2001
BARIUM	Other	30.6 ppb barium in stormwater outfall discharge at S01SW. 7.5 ppb at SO03SW. 5.9 ppb at SO02SW.	10/28/2008
BARIUM	Other	112 ppm barium in surface soils at Schooner Creek stormwater outfall SO04SS. 63.3 ppm at SO05SS. Background soil sample contained 119 ppm (BK01SS).	10/28/2008
BARIUM	Sediment	127 ppm barium in Canoe Bay sediments at CB01SD. 126 ppm at CB09SD. 123 ppm at CB06SD. 121 ppm at CB05SD. 120 ppm at CB04SD. Barium in nearby Columbia River sediments generally ranged from 48.8- to 66.2 ppm.	10/28/2008 12:39:46 PM

BARIUM	Soil	175 ppm barium in surface soils adjacent to Canoe Bay at CB03SS. 157 ppm at CB05SS. Background soils contained 85.6 ppm.	10/28/2008
BENZO(a)ANTHRACENE	Other	16 ppm Concentration in residual paint dust	5/1/2001
BENZO(a)ANTHRACENE	Other	47 ppb benzo(a)anthracene in surface soils at Schooner Creek stormwater outfall SO04SS.	10/28/2008
BENZO(a)ANTHRACENE	Sediment	30 ppb benzo(a)anthracene in Canoe Bay sediments at CB13SD (10/28/08). 29 ppb at CB14SD. 19 ppb in Canoe Bay sediment composites (two 2-core composites) Detected in analytical method blank at 1.4 ppb. 38 ppb in Columbia River sediments at CR04SD.	1/14/2002
BENZO(a)ANTHRACENE	Soil	49 ppb benzo(a)anthracene in surface soils at CB04SS. 29 ppb at CB05SS.	10/28/2008
BENZO(a)PYRENE	Other	12 ppm Concentration in residual paint dust	5/1/2001
BENZO(a)PYRENE	Sediment	44 ppb benzo(a)pyrene in Canoe Bay sediments at CB14SD. 33 ppb at CB13SD. 22 ppb in Canoe Bay sediment composites (two 2-core composites) 47 ppb in Columbia River sediment sample CR04SD.	1/14/2002
BENZO(a)PYRENE	Soil	41 ppb benzo(a)pyrene in surface soils at CB04SS. 23 ppb at CB05SS.	10/28/2008
BENZO(b)FLUORANTHENE	Other	17.9 ppm Concentration in residual paint dust	5/1/2001
BENZO(b)FLUORANTHENE	Sediment	26 ppb in Canoe Bay sediment composites (two 2-core composites)	1/14/2002
BENZO(ghi)PERYLENE	Other	9.4 ppm Concentration in residual paint dust	5/1/2001
BENZO(ghi)PERYLENE	Sediment	20 ppb in Canoe Bay sediment composites (two 2-core composites) Detected in analytical method blank at 3.3 ppb	1/14/2002
BENZO(k)FLUORANTHENE	Other	17.9 ppm Concentration in residual paint dust	5/1/2001
BENZO(k)FLUORANTHENE	Sediment	43 ppb benzo(k)fluoranthene in Canoe Bay sediments at CB14SD. 39 ppb at CB13SD. 5.5 ppb in Canoe Bay sediment composite (two cores). 55 ppb in Columbia River sediments at CR04SD.	1/14/2002

BENZOIC ACID	Sediment	33 ppb in Canoe Bay sediment composite (two cores)	1/14/2002
BENZYL ALCOHOL	Sediment	18 ppb Canoe Bay sediment composite (two cores)	1/14/2002
BERYLLIUM	Sediment	0.34 ppm in Canoe Bay sediment composite (two cores)	1/14/2002
BIS(2-ETHYLHEXYL)PHTHALATE	Other	1300 ppb bis(2-ethylhexyl)phthalate in surface soils at Schooner Creek stormwater outfall SO04SS. 650 ppb in surface soils at City of Portland stormwater outfall at SO05SS.	10/28/2008 8:34:13 AM
BIS(2-ETHYLHEXYL)PHTHALATE	Other	520 ppb bis(2-ethylhexyl)phthalate in sediments below stormwater outfall at SO01SD.	10/28/2008 8:34:13 AM
BIS(2-ETHYLHEXYL)PHTHALATE	Soil	370 ppb bis(2-ethylhexyl)phthalate in surface soils at CB02SS.	10/28/2008
BUTYL BENZYL PHTHALATE	Sediment	9.8 ppb in Canoe Bay sediment composite (two cores)	1/14/2002
CADMIUM	Other	0.03 ppm TCLP Leachable cadmium concentration in residual paint dust	5/1/2001
CADMIUM	Other	0.96 ppm cadmium in sediments from stormwater outfall seeding Canoe Bay at SD02SD. 0.82 ppm in sediments at outfall SO01SD.	10/28/2008
CADMIUM	Sediment	1.6 ppm cadmium in Canoe Bay sediments at CB06SD. 1.1 ppm cadmium in Canoe Bay sediment composites (two 2-core composites) from 0-7 feet depths. 1.0 ppm at CB05SD, CB09SD, CB10SD, and CB14SD.	10/28/2008
CADMIUM	Soil	14.6 ppm cadmium in surface soils adjacent to canoe bay at CB05SS. 2.9 ppm at CB03SS. Background soils contained no detectable cadmium at an analytical detection limit of 0.50 ppm.	10/28/2008
CHLORDANE	Soil	7.5 ppb gamma-chlordane in surface soils along the southwest edge of canoe bay at CB03SS.	10/28/2008 12:55:35 PM
CHLORDANE,CIS-	Sediment	1.5 ppb in Canoe Bay sediment composite (two cores)	1/14/2002

CHROMIUM	Other	TCLP leachable concentration in residual paint dust	5/1/2001
CHROMIUM	Other	16 ppm chromium in surface soils at Schooner Creek stormwater outfall SO04SS.	10/28/2008 8:18:54 AM
CHROMIUM	Sediment	16.2 ppm chromium in Canoe Bay sediments at CB06SD. 15.8 ppm at CB09SD. 15.2 ppm at CB05SD. 15 ppm in Canoe Bay sediment composite (two cores) at 0-7 feet depths (1/14/02). Columbia River sediments generally contained 5.1 - to 8.7 ppm chromium.	10/28/2008
CHROMIUM	Soil	33.7 ppm chromium in surface soils adjacent to Canoe Bay at CB05SS. 23.5 ppm at CB03SS. Background soils contained 8.5 ppm chromium.	10/28/2008
CHRYSENE	Other	22 ppm Concentration in residual paint dust	5/1/2001
CHRYSENE	Other	110 ppb chrysene in surface soils at Schooner Creek stormwater outfall at SO04SS. 44 ppb in surface soils at City of Portland stormwater outfall SO05SS.	10/28/2008
CHRYSENE	Sediment	43 ppb chrysene in Canoe Bay sediments (0-6 inches) at CB13SD. 29 ppb at CB14SD. 24 ppb in Canoe Bay sediment samples - one core and two 2-core composites Detected in analytical method blank at 1.7 ppb. 36 ppb in Columbia River sediments at CR04SD.	1/14/2002
CHRYSENE	Soil	61 ppb chrysene in surface soils at CB04SS. 34 ppb in soils at CB05SS.	10/28/2008
COBALT	Other	8.2 ppm cobalt in surface soils at Schooner Creek stormwater outfall SO04SS.	10/28/2008 8:20:14 AM
COBALT	Sediment	16.2 ppm cobalt in Canoe Bay sediments at CB06SD. 15.8 ppm at CB09SD. 15.2 ppm at CB05SD. 15.0 ppm at CB10SD.	10/28/2008 8:04:40 AM
COBALT	Soil	10 ppm cobalt in surface soils along the southwest edge of Canoe Bay at CB05SS. Background soils contained no detectable cobalt at an analytical detection limit of 4.8 ppm.	10/28/2008 7:59:41 AM
COPPER	Other	966 ppb copper in stormwater from outfall discharge at SO01SW. 65.4 ppb at SO03SW. 49.1 ppb at SO02SW.	10/28/2008

COPPER	Other	455 ppm copper in soils at Schooner Creek stormwater outfall SO04SS. 407 ppm at City of Portland stormwater outfall SO05SS.	10/28/2008
COPPER	Other	90 ppm copper in sediments below stormwater outfall at SO01SD. 63.9 ppm in sediments below stormwater outfall at SD02SD.	10/28/2008
COPPER	Sediment	79.2 ppm copper in Canoe Bay sediments at CB11SD. 68.4 ppm at CB05SD. 66.7 ppm at CB10SD. 19.9 ppm copper in Canoe Bay sediment samples (core and two 2-core composites) 0-7 feet (1/14/02). Nearby Columbia River sediments had 5.1-11.7 ppm copper.	10/28/2008
COPPER	Soil	357 ppm copper in surface soils adjacent to Canoe Bay at CB05SS. 125 ppm at CD03SS. 68.9 ppm at CB02SS.	10/28/2008 4:21:41 PM
CRESOL,4-	Sediment	16 ppb in Canoe Bay sediment composites (two 2-core composites)	1/14/2002
CUMENE	Other	0.27 ppm Concentration in residual paint dust	5/1/2001
DDD,p,p'-	Sediment	32 ppb in Canoe Bay sediment composites (two 2-core composites)	1/14/2002
DDE,p,p'-	Sediment	10 ppb in Canoe Bay sediment composites (two 2-core composites)	1/14/2002
DDT,p,p'-	Sediment	3.3 ppb DDT in Canoe Bay sediments at CB11SD (0-6 inches; 10/28/08). 1.6 ppb in Canoe Bay sediment composites (two 2-core composites). 1.3 ppb at CB14SD.	1/14/2002
DIBENZO(a,h)ANTHRACENE	Sediment	6.7 ppb in Canoe Bay sediment composites (two 2-core composites)	1/14/2002
DIESEL - FUEL OIL	Sediment	17000 ppb in Canoe Bay sediment composites (two 2-core composites)	1/14/2002
DIETHYL PHTHALATE	Sediment	6.3 ppb in Canoe Bay sediment composite (two cores)	1/14/2002
DIMETHYL PHTHALATE	Other	7.3 ppb dimethylphthalate in stormwater outfall discharge at SO01SW.	10/28/2008 3:48:47 PM
DIMETHYL PHTHALATE	Other	2200 ppb dimethylphthalate in surface soils at Schooner Creek stormwater outfall SO04SS.	10/28/2008

DIMETHYL PHTHALATE	Sediment	36 ppb in Canoe Bay sediment composite (two cores)	1/14/2002
DI-n-BUTYL PHTHALATE	Other	27.9 ppm Concentration in residual paint dust	5/1/2001
DI-n-BUTYL PHTHALATE	Sediment	8.6 ppb in Canoe Bay sediment samples - one core and two 2-core composites	1/14/2002
ENDOSULFAN I	Other	0.064 ppb endosulfan I in stormwater outfall drainage at SO03SW.	10/28/2008 3:47:12 PM
ETHYLBENZENE	Other	0.39 ppm Concentration in residual paint dust	5/1/2001
FLUORANTHENE	Other	38 ppm Concentration in residual paint dust	5/1/2001
FLUORANTHENE	Sediment	55 ppb in Canoe Bay sediment composites (two 2-core composites) Detected in analytical method blank at 3.3 ppb	1/14/2002
FLUORENE	Other	10.4 ppm Concentration in residual paint dust	5/1/2001
FLUORENE	Sediment	6.1 ppb in Canoe Bay sediment composite (two cores)	1/14/2002
INDENO(1,2,3-cd)PYRENE	Other	7.4 ppb Concentration in residual paint dust	5/1/2001
INDENO(1,2,3-cd)PYRENE	Other	210 ppb indeno(1,2,3-cd)pyrene in surface soils at City of Portland stormwater outfall SO05SS.	10/28/2008 8:28:14 AM
INDENO(1,2,3-cd)PYRENE	Sediment	26 ppb indeno(1,2,3-cd)pyrene in Canoe Bay sediments at CB14SD. 17 ppb in Canoe Bay sediment composites (two 2-core composites). 27 ppb in Columbia River sediments at CR04SD.	1/14/2002
INDENO(1,2,3-cd)PYRENE	Soil	31 ppb indeno(1,2,3-cd)pyrene in surface soils at CB04SS.	10/28/2008
IRON	Other	20200 ppm iron in surface soils at Schooner Creek stormwater outfall SO04SS.	10/28/2008 8:41:26 AM
IRON	Other	20600 ppm iron in sediments below stormwater outfall SO02SD.	10/28/2008 8:41:26 AM
IRON	Sediment	22600 ppm iron in Canoe Bay sediments at CB14SD. 21000 ppm at CB09SD. 20400 ppm at CB05SD. 20200 ppm at CB10SD. Nearby Columbia River sediments generally contained 7890- to 10800 ppm iron.	10/28/2008 12:56:34 PM

IRON	Soil	103000 ppm iron in surface soils adjacent to Canoe Bay at CB05SS. 29600 ppm at CB03SS. 26600 ppm at CB02SS.	10/28/2008 4:23:55 PM
ISOPROPYLTOLUENE,p-	Other	0.25 ppm Concentration in residual paint dust	5/1/2001
LEAD	Other	1.2 ppm TCLP leachable concentration in residual paint dust	5/1/2001
LEAD	Other	11.5 ppb lead in stormwater outfall discharge at SO01SW. 3.3 ppb at SO03SW. 2.7 ppb at SO02SW.	10/28/2008 3:56:34 PM
LEAD	Other	96.3 ppm lead in surface soils at Schooner Creek stormwater outfall at SO04SS.	10/28/2008
LEAD	Sediment	22.6 ppm lead in Canoe Bay sediments at CB06SD. 20.7 ppm lead in Canoe Bay sediment composite (two cores) at 0-7 feet depths (1/14/02). 14 ppm at CB14SD. 13.8 ppm at CB11SD. 13.5 ppm at CB05SD and CB10SD. Columbia River sediments had 3- to 4.8 ppm.	10/28/2008
LEAD	Soil	853 ppm lead in surface soils adjacent to Canoe Bay at CB05SS. 213 ppm at CB03SS. Background soils contained 19.8 ppm lead.	10/28/2008
MANGANESE	Other	284 ppm manganese in surface soils at Schooner Creek stormwater outfall SS04SS. 237 ppm at City of Portland stormwater outfall SO05SS.	10/28/2008 8:46:05 AM
MANGANESE	Other	292 ppm manganese in sediments below stormwater outfall at SO02SD. 253 ppm below outfall at SO01SD.	10/28/2008 8:46:05 AM
MANGANESE	Sediment	330 ppm manganese in Canoe Bay sediments at CB06SD. 316 ppm at CB11SD. Nearby Columbia River sediments generally contained 162- to 311 ppm manganese.	10/28/2008 1:05:07 PM
MANGANESE	Soil	582 ppm manganese in surface soils adjacent to Canoe Bay at CB05SS. 345 ppm at CB03SS. 303 ppm at CB02SS. 108 ppm at CB01SS.	10/28/2008 4:28:07 PM
MERCURY	Sediment	0.26 ppm mercury in Canoe Bay sediments at CB08SD. 0.18 ppm at CB10SD. 0.12 ppm at CB09SD. 0.11 ppm at CB07SD. 0.08 ppm in Canoe Bay sediment samples (core and two 2-core composites) at 0-7 feet depths (1/14/02).	10/28/2008

MERCURY	Soil	0.26 ppm mercury in surface soils along the southwest edge of Canoe Bay at CB05SS. Background soils contained no detectable mercury at an analytical detection limit of 0.038 ppm.	10/28/2008
METHYLENE CHLORIDE	Other	1.55 ppm Concentration in residual paint dust	5/1/2001
NAPHTHALENE	Other	4.6 ppm Concentration in residual paint dust	5/1/2001
NAPHTHALENE	Sediment	8.8 ppb in Canoe Bay sediment composites (two 2-core composites) Detected in analytical method blank at 4 ppb	1/14/2002
NICKEL	Sediment	14.5 ppm nickel in Canoe Bay sediments at CB09SD. 14.3 ppm at CB06SD. 13.5 ppm at CB01SD. 13.5 ppm in Canoe Bay sediment composite (two cores) at 0-7 feet (1/14/02). Nearby Columbia River sediments contained 5.6- to 9.5 ppm.	10/28/2008
NICKEL	Soil	49.6 ppm nickel in surface soils along the southwest edge of Canoe Bay at CB05SS. 30.7 ppm at CB03SS. 13.4 ppm at CB02SS. Background soils contained 8.9 ppm.	10/28/2008 7:52:58 AM
OIL - LUBRICATING	Sediment	55000 ppb in Canoe Bay sediment composites (two 2-core composites)	1/14/2002
PCB 1254	Other	26 ppb aroclor 1254 in sediments below stormwater outfall at SO02SD.	10/28/2008
PCB 1254	Sediment	59 ppb aroclor 1254 in Canoe Bay sediments at CB11SD (0-6 inches; 10/28/08). 51 ppb at CB05SD. 51 ppb in Canoe Bay sediment composite (two cores). 41 ppb at CB03SD. 28 ppb at CB14SD.	1/14/2002
PCB 1254	Soil	490 ppb aroclor 1254 in surface soils adjacent to Canoe Bay at CB03SS. 30 ppb at CB02SS and CB05SS.	10/28/2008
PCB 1260	Sediment	13 ppb in Canoe Bay sediment core composite (two cores)	1/14/2002
PENTACHLOROPHENOL	Sediment	6.6 ppb in Canoe Bay sediment composite (two cores)	1/14/2002
PHENANTHRENE	Other	41.1 ppm Concentration in residual paint dust	5/1/2001

PHENANTHRENE	Sediment	26 ppb in Canoe Bay sediment composites (two 2-core composites) Detected in analytical method blank at 3.8 ppb	1/14/2002
PHENOL	Sediment	290 ppb phenol in Canoe Bay sediments at CB09SD. 260 ppb at CB06SD. 220 ppb at CB06SD. 22 ppb in Canoe Bay sediment composites (two-core composites) (0-7 feet) (1/14/02). 190 ppb in Columbia River sediments at CR05SD.	10/28/2008
PHENOL	Soil	210 ppb phenol in surface soils at City of Portland stormwater outfall at SO05SS.	10/28/2008
PROPYLBENZENE,n-	Other	0.17 ppm Concentration in residual paint dust	5/1/2001
PYRENE	Other	25.2 ppm Concentration in residual paint dust	5/1/2001
PYRENE	Sediment	54 ppb in Canoe Bay sediment composites (two 2-core composites) Detected in analytical method blank at 3.4 ppb	1/14/2002
SELENIUM	Other	1.3 ppm selenium in surface soils at Schooner Creek stormwater outfall at SO04SS. 0.9 ppm at City of Portland Stormwater outfall at SO05SS.	10/28/2008 8:49:26 AM
SELENIUM	Other	1.3 ppm selenium in sediments below stormwater outfall at SO02SD. 0.98 ppm in sediments below outfall at SO01SD.	10/28/2008 8:49:26 AM
SELENIUM	Sediment	1.8 ppm selenium in canoe Bay sediments at CB06SD. 1.7 ppm at CB09SD. 1.6 ppm at CB05SD, CB10SD, and CB14SD. 0.58 ppm in Canoe Bay sediment composite (two cores) at 0-7 feet (1/14/02).	10/28/2008
SELENIUM	Soil	5.9 ppm selenium in surface soils along southwest edge of Canoe Bay at CB05SS. 1.8 ppm at CB03SS. 1.6 ppm at CB02SS. Background soils contained no detectable selenium at an analytical detection limit of 0.82 ppm.	10/28/2008 7:50:36 AM
SILVER	Sediment	0.38 ppm in Canoe Bay sediment samples (core and two 2-core composites)	1/14/2002
SILVER	Soil	1.5 ppm silver in surface soils along southwest edge of Canoe Bay at CB05SS. Background soils contained no detectable silver at an analytical detection limit of 1.1 ppm	10/28/2008 7:47:47 AM

STYRENE	Other	8.4 ppm Concentration in residual paint dust	5/1/2001
THALLIUM	Sediment	0.24 ppm in Canoe Bay sediment composite (two cores)	1/14/2002
TRIBUTYLTIN	Other	0.028 ppb tributyltin in stormwater discharging from outfall at SO01SW.	10/28/2008
TRIBUTYLTIN	Other	110 ppb tributyltin in surface soils at Schooner Creek stormwater outfall SO04SS.	10/28/2008
TRIBUTYLTIN	Other	20 ppb tributyltin in sediments below stormwater outfall at SO02SD.	10/28/2008
TRIBUTYLTIN	Sediment	410 ppb Tributyltin in Canoe Bay sediments at CB04SD (equivalent to 34,167 ug/Kg OC). 200 ppb at CB11SD (equivalent to 13,333 ug/Kg OC). 7.4 ppb at CB14SD (equivalent to 1,574 ug/Kg OC).	10/28/2008
TRIMETHYLBENZENE,1,2,4-	Other	3.1 ppm Concentration in residual paint dust	5/1/2001
TRIMETHYLBENZENE,1,3,5-	Other	1.48 ppm Concentration in residual paint dust	5/1/2001
VANADIUM	Other	63.5 ppm vanadium in surface soils at Schooner Creek stormwater outfall at SO04SS. 45.3 ppm at City of Portland stormwater outfall at SO05SS.	10/28/2008 8:52:45 AM
VANADIUM	Other	55.2 ppm vanadium in sediments below stormwater outfall at SO02SD. 55.0 ppm in sediments below outfall at SO01SD.	10/28/2008 8:52:45 AM
VANADIUM	Sediment	51.2 ppm vanadium in Canoe Bay sediments at CB09SD. 47.5 ppm at CB10SD. 47.3 ppm at CB05SD. 46.3 ppm at CB06SD. 33.5 ppm in Canoe Bay sediment composites (two 2-core composites) at 0-7 ft (1/14/02). Nearby Columbia Riv. sediments: 19.9- to 32.1 ppm.	10/28/2008
VANADIUM	Soil	51.8 ppm vanadium in surface soils along southwest edge of Canoe Bay at CB02SS. 44.7 ppm at CB03SS. 34.8 ppm at CB05SS. 33.1 ppm at CB01SS. Background soils had 29.8 ppm.	10/28/2008 7:43:34 AM
XYLENES	Other	3.8 ppm Concentration in residual paint dust	5/1/2001
ZINC	Other	370 ppb zinc in stormwater outfall discharge at SO01SW. 138 ppb at SO03SW. 122 ppb at SO02SW.	10/28/2008 3:58:05 PM

ZINC	Other	315 ppm zinc in surface soils at Schooner Creek stormwater outfall at SO04SS. 178 ppm at City of Portland outfall at SO05SS.	10/28/2008 8:55:42 AM
ZINC	Other	148 ppm zinc in sediments below stormwater outfall at SO02SD. 125 ppm below outfall at SO01SD.	10/28/2008 8:55:42 AM
ZINC	Sediment	146 ppm zinc in Canoe Bay sediments at CB06SD. 118 ppm at CB10SD. 116 ppm at CB05SD. 111 ppm in Canoe Bay sediment composite (two cores) at 0-7 feet (1/14/02). Nearby Columbia River sediments had 30.2- to 53.9 ppm.	10/28/2008
ZINC	Soil	1120 ppm zinc in surface soils at the southwest edge of Canoe Bay at CB05SS. 637 ppm at CB03SS. 100 ppm at CB04SS. Background soils had 76.5 ppm.	10/28/2008

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
No Further Action (Conditional) (Primary Action)	05/19/2014	05/19/2014	Jennifer Sutter	SRS
View Full Report Showing Action History (ecsdetailfull.asp?seqnbr=3333#actions)				

Site Environmental Controls

Control Description	Begin Date	End Date	Last Reviewed By	Last Review Date
Cap, engineered	01/15/2014		Katie Daugherty	05/15/2014
Comments: Envirolok and sand cap placed over debris pile area on the shoreline. Envirolok placed in stormwater outfall discharge area. Establishing vegetation first year and maintaining thereafter.				

Key to Certain Acronyms and Terms in this Report:

- **CERCLIS No.:** The U.S. EPA's Hazardous Waste Site identification number, shown only if EPA has been involved at the site.
- **Region:** DEQ divides the state into three regions, Eastern, Northwest, and Western; the regional office shown is responsible for site investigation/cleanup.

- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

For more information on this site contact the Northwest regional office
(<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 3500, Mountain Fir Chip Co. - The Dalles

Site Photos

Click to View Photo	Picture Date	Caption	Size
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=2275&siteID=3500)	04/01/2003	3500_4/1/2003	29 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=2276&siteID=3500)	04/01/2003	3500_4/1/2003	44 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=2277&siteID=3500)	04/01/2003	3500_4/1/2003	32 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=2278&siteID=3500)	04/01/2003	3500_4/1/2003	38 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=1048&siteID=3500)	05/26/1999	View of the site while operating .	34 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=1049&siteID=3500)	05/26/1999	View of the entrance to the site.	31 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=1050&siteID=3500)	05/26/1999	View of the site from The Dalles Industrial Park.	36 Kb

General Site Information

Site ID: 3500	Site Name: Mountain Fir Chip Co. - The Dalles	CERCLIS No:
Address:	3636 Klindt DR The Dalles 97058	
	County: Wasco	Region: Eastern

Other location
information:

Investigation Status: No further action required

Brownfield Site: No

NPL Site: No

Orphan Site:
No

Study Area:
No

Property:

Twنشp/Range/Sect: 2N , 13E , 21

Tax Lots: 800

Latitude:
45.6364 deg.

Longitude:
-121.2008 deg.

Site Size: 43 acres

Other Site Names:

Mountain Fir Lumber

Site Characteristics

General Site
Description:

This 43-acre site was used for the production of wood chips from about 1972 until August 2002 when the facility was destroyed by fire. The site, which is part of the Port of the Dalles complex, is bounded on the south by other Port property and Chenoweth Creek. A Bonneville Power Administration substation lies to the west. The Columbia River is immediately east of the site, and other Port property borders the site to the north. The site was developed by Mountain Fir Chip in 1972, and the site improvements were purchased by Longview Fibre Company in the mid-1970s. According to Port personnel, the site had been previously used for farming.

Site location and description information:

- 4350 River Trail Way, The Dalles, Wasco County, Oregon
- Section 21, Township 2 North, Range 13 East
- Latitude: 45° 38' 11" N, Longitude: 121° 12' 30" W
- Tax Lot 800
- Depth to groundwater: >25 feet (based on data from nearby sites; groundwater monitoring was not conducted at this site)
- Nearest surface water body: Columbia River, immediately east of the site

Site History:

Contamination
Information:

(12/22/02 DMC/SAS) Site added to database for tracking as a potential brownfield. Site was damaged by fire 8/3/02 and the company announced the mill will close during 9/02. (1/13/03 DMC/SAS) Review of office records shows that surveyors for the BPA Expansion Project contacted DEQ on 1/13/98 to report that Mt. Fir workers were emptying barrels outside that were used during the repair of heavy equipment and may contain hydraulic or motor oil.

Manner and Time of
Release:

Hazardous
Substances/Waste
Types:

Pathways:

Environmental/Health
Threats:

Status of Investigative
or Remedial Action:

(4/13/04 DMC/SAS) Site walkover conducted. (1/12/05 Bob Schwarz/VCS) DEQ inspected site with Martin S. Burck Associates (MSBA) on June 4, 2004. Based on this inspection, DEQ and MSBA agreed on site sampling requirements. On Jan. 3, 2005, MSBA submitted a work plan to conduct soil sampling.

(Nov. 17, 2005, Bob Schwarz) MSBA and DEQ conducted a site inspection on June 4, 2004. Based on past site activities and field observation, nine locations were selected for characterization. These include:

- Area 1: maintenance shop
- Area 2: south truck ramp
- Area 3: barker plant
- Area 4: fueling station
- Area 5: equipment and vehicle parking area
- Area 6: former crane location
- Area 7: barge dock
- Area 8: north truck ramp
- Area 9: hydraulic equipment pad

Soil samples were collected on February 3, 2005, from eight of these areas. The barge dock (area 7) was selected for sampling of surface water from the Columbia River. All samples were analyzed for diesel and oil by method NWTPH-Dx. Four samples from areas 1, 3 and 4 were also analyzed for gasoline by method NWTPH-Gx. Gasoline was detected in one of the four samples at a concentration of 188 mg/kg. Diesel was found in five of 27 soil samples, at a maximum concentration of 6,940 mg/kg. Heavy oil was found in the majority of the 27 soil samples, at a maximum concentration of 85,100 mg/kg. No petroleum was found in the one surface water sample.

Following the initial sampling, petroleum-contaminated soil was excavated from each of these areas except areas 6 and 7. Diesel and oil, detected in one of four samples at area 6, was determined to be the result of biogenic interference, and not related to petroleum contamination. As noted earlier, area 7 was selected as the site of a Columbia River surface soil sample.

Two rounds of soil excavation were conducted, on March 17-18, and on March 25, 2005. A total of 780 tons of petroleum-contaminated soil were removed and taken to the Wasco County Landfill for disposal. Six confirmation samples were analyzed for volatile organic compounds (VOCs), polynuclear aromatic compounds (PAHs), cadmium, chromium and lead. No VOCs or PAHs were detected in five of the six samples. In the sixth sample, taken from area 6, one VOC was found (p-isopropyltoluene at 4.15 mg/kg) and one PAH was found (fluoranthene at 0.15 mg/kg). Chromium and lead were detected in all samples, at maximum concentrations of 16.9 mg/kg and 28.2 mg/kg, respectively. Cadmium was detected in two of the six samples at a maximum concentration of 0.834 mg/kg.

Site investigations indicate that most contamination was the result of surface spilling of heavy oil. This contamination was removed to the extent practical. Much of the site has exposed basalt, and where soil cover is found, it extends to depth of only a few feet. Future development of the site would be served by the municipal water supply. For these reasons, DEQ did not require groundwater sampling at this site.

Beneficial land and water use. The site has been used for nonresidential purposes since the early 1970s. The property is zoned as industrial by the City of The Dalles. The City has indicated in writing that there are no plans to change this designation. The Port of The Dalles has indicated that the property will receive water from the municipal water system in the future. Extraction of groundwater at the site is therefore unlikely.

Evaluation of risk to human health. Human health risk was evaluated in accordance with DEQ's Risk-based Decision Making for the Remediation of Petroleum-contaminated Sites (RBDM guidance; September 2003). Acceptable risk-based concentrations (RBCs) are specified for various exposure scenarios in Appendix A of this guidance document. The following exposure scenarios were determined by the consultant to be applicable to this site:

- Ingestion, inhalation and dermal contact with contaminated soil
- Inhalation of contaminants that volatilize from soil to outdoor air
- Inhalation of contaminants that volatilize from soil to indoor air
- Leaching of contaminants from soil to groundwater that is then ingested. (Note: Ingestion of groundwater is unlikely, as discussed above. However, the potential for soil contamination to leach to groundwater is included in this evaluation because we do not have groundwater data for this site.)

Based on confirmation soil sample results, the following contaminants were considered in the human health risk evaluation:

- Diesel
- Heavy oil
- Fluoranthene
- p-isopropyltoluene
- cadmium
- chromium
- lead

The highest remaining concentrations of these contaminants are presented in Table 1, along with the most stringent relevant risk-based concentrations (RBCs). These RBCs, which are found in Appendix A of DEQ's RBDM guidance, reflect risk to people in an occupational setting, who could be exposed as a result of the four exposure scenarios listed above. For those contaminants not listed in the RBDM guidance, residual concentrations were compared to USEPA Region 9's preliminary remediation goals (PRGs) for industrial soil.

Table 1

Maximum remaining contaminant concentrations compared to applicable RBCs (The maximum concentration is followed in parentheses by the minimum applicable RBC. All results are in mg/kg)

Diesel 3,680 (23,000)
Heavy oil 6,350 (40,000)
Fluoranthene 0.15 (8,900)
p-isopropyltoluene 4.15 (No RBC available)
Cadmium 0.834 (450)

Chromium 16.9 (100,000)

Lead 28.2 (30)

Notes:

1. NL = not listed in either DEQ's RBDM guidance or in USEPA Region 9's PRG table.

2. Cadmium and chromium are not included in Appendix A of the RBDM guidance. The values shown are taken from USEPA Region 9's PRG table.

As shown in Table 1, contaminants were below screening levels for human health. Further evaluation of risk to human health was therefore not required.

Evaluation of risk to ecological receptors. MSBA conducted a scoping-level ecological risk assessment. The assessment notes localized surface staining resulting from past industrial activities, and the fact that the site lies within the Columbia River Gorge National Scenic Area, and could therefore be considered a sensitive environment as defined in OAR 340-122-115(50). The assessment concludes, however, that no further ecological evaluation is warranted, for the following reasons:

- The site is included in an industrial/commercial area owned by the Port of the Dalles.
- The developed portion of the site is covered with gravel, wood chips/bark or bedrock, and is essentially devoid of vegetation other than sparse weeds and grasses.

Given the current and likely future site use, DEQ agrees with this conclusion.

Hot spot assessment. As stated in OAR 340-122-080 (6) and (7), a remedial investigation shall identify hazardous substances having a significant adverse effect on beneficial use of water to which the hazardous substances would be reasonably likely to migrate, and identify hot spots of contamination for media other than water. The purpose of a hot spot analysis is to identify areas for which treatment at a higher cost threshold can be used in the evaluation and selection of remedial actions.

Hotspots are defined in terms of the affected media (e.g., soil, groundwater), types of contaminants (carcinogens and noncarcinogens) and types of receptors (human and ecological). In general, a hotspot is an area in which the acceptable risk level is exceeded substantially. At this site, the acceptable risk level has not been exceeded. We therefore conclude there are no hotspots.

Based on the information summarized in this memo, DEQ proposed that a No Further Action determination be issued for this site. This proposal was submitted for public comment From October 3 through November 2, 2005. No comments were received.

The No Further Action determination was issued on November 7, 2005.

Data Sources:

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
No information is available			

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
NO FURTHER STATE ACTION REQUIRED (Primary Action)	11/07/2005	11/07/2005	Robert Schwarz (mailto:Bob.SCHWARZ@deq.oregon.gov)	VCS
View Full Report Showing Action History (ecsdetailfull.asp?seqnbr=3500#actions)				

Key to Certain Acronyms and Terms in this Report:

- **CERCLIS No.:** The U.S. EPA's Hazardous Waste Site identification number, shown only if EPA has been involved at the site.
- **Region:** DEQ divides the state into three regions, Eastern, Northwest, and Western; the regional office shown is responsible for site investigation/cleanup.
- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting Robert Schwarz at the [Eastern regional office \(https://www.oregon.gov/DEQ/Pages/Offices.aspx\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx) or via email at bob.schwarz@deq.oregon.gov (<mailto:Bob.SCHWARZ@deq.oregon.gov>). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (<mailto:ximena.cruzcuevas@deq.state.or.us>) or contact the [Eastern regional office \(https://www.oregon.gov/DEQ/Pages/Offices.aspx\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 3778, Mitchell Point Texaco (Former)

General Site Information

Site ID: 3778	Site Name: Mitchell Point Texaco (Former)	CERCLIS No:
Address:	Old Hwy. 30	
	County: Hood river	Region: Eastern
Other location information:	Mitchell Point	
Investigation Status:	Suspect site requiring further investigation	
	Brownfield Site: No	NPL Site: No
		Orphan Site: No
		Study Area: No
Property:	Twنشp/Range/Sect: 3N , 10E , 31	Tax Lots:
	Latitude: 45.7031 deg.	Longitude: -121.6187 deg.
		Site Size:
Other Site Names:		

Site Characteristics

General Site Description:

Site History:

Contamination Information: (1/13/03 DMC/SAS) Site added to database for tracking as a former gas station that is not listed in DEQ's UST or LUST databases. According to local newspaper, the site was part of a hunting lodge that burned down in the early 1960s.

Manner and Time of Release: No known releases.

Hazardous Substances/Waste Types:

Pathways:

Environmental/Health

Threats:

Status of Investigative or Remedial Action: (1/13/03 DMC/SAS) Site screening recommended and referral to DEQ Tanks (if appropriate).

Data Sources: 1. The Dalles Chronicle (1/12/03).

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
No information is available			

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Site Screening recommended (EV) (Primary Action)	01/13/2003	01/13/2003	Daniel Crouse	SAS

[View Full Report Showing Action History \(ecsdetailfull.asp?seqnbr=3778#actions\)](http://ecsdetailfull.asp?seqnbr=3778#actions)

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- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

For more information on this site contact the [Eastern regional office](https://www.oregon.gov/DEQ/Pages/Offices.aspx) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 4065, UPRR Diesel Spill - Rowena

General Site Information

Site ID: 4065	Site Name: UPRR Diesel Spill - Rowena	CERCLIS No:
Address:	I-84, Exit 76 (Rowena)	
	County: Wasco	Region: Eastern
Other location information:	NE corner of the Rowena Exit.	
Investigation Status:	No further action required	
	Brownfield Site: No	NPL Site: No
	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 2N , 12E , 11	Tax Lots:
	Latitude: 45.6766 deg.	Longitude: -121.277 deg.
		Site Size:
Other Site Names:	Union Pacific Railroad	

Site Characteristics

General Site Description:	The site is a railroad siding in Rowena, Wasco County, near the Rowena exit of Interstate Highway 84. River Road is just north of the spill site. Residential properties lie between River Road and the Columbia River, which is 800 feet north of the site.
Site History:	Oregon DEQ is overseeing investigation and cleanup of a diesel spill that occurred at a rail siding in Rowena on February 15, 2004. The spill was discovered by Union Pacific Railroad (UPRR) when a crew member noticed that one of three idling locomotives on a parked westbound train had shut off. The crew found the engine compartment sump full of diesel fuel. The cause of the malfunction was determined to be a cracked fuel filter.
Contamination Information:	(1/9/06 BPS/VCP) Diesel, BTEX

Manner and Time of Release:	Diesel spill from a parked, idling locomotive.
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Hazardous Substances/Waste Types:	petroleum, BTEX
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Pathways:	
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Environmental/Health Threats:	
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Status of Investigative
or Remedial Action:

(1/9/06 RPS/VCP) Spill response activities during February and March 2004 included flushing the affected area with water and pumping diesel into vacuum trucks. Booms and sorbents were used to contain the fuel during this phase of cleanup. Following this phase, UPRR installed two groundwater monitoring wells just north of the siding track in May 2004.

By July 2005, nine wells had been installed. These include five along the north side of the siding track and two south of the spill area, which verified that there were no upgradient contamination sources. Some free-phase diesel was found in the three wells closest to the spill. As a result, UPRR installed two wells on the north side of River Road, to monitor groundwater quality near the residential properties between River Road and the Columbia River. No contamination was found in either of these wells during the two sampling rounds conducted to date (July and October 2005).

To get a better sense of the extent of contamination, UPRR installed 51 soil borings in July 2005. About 12 of these were placed along the north side of River Road. The rest were between the siding track and the south side of River Road. Presence of petroleum was determined based on inspection of the soil samples in the field, by sight and smell, and by lab analysis for petroleum. Free-phase petroleum was observed over an area between the tracks and the south side of the road. This area extends about 90 feet east-west by about 25 feet north-south. In addition, detectable concentrations were found in some of the soil samples north of River Road. The highest level of diesel found north of the road was 1,420 mg/kg.

UPRR has proposed conducting soil treatment in place (that is, without excavating the contaminated soil) to reduce petroleum levels. This work is scheduled to take place during spring 2006.

(3/20/06 KJR/SAS) Site proposed for listing on CRL and Inventory. No comments received. Site listed on CRL and Inventory.

(July 9, 2007, Bob Schwarz) Contamination exceeded risk screening levels only marginally following the completion of emergency response activities. However, UPRR installed an air sparge system to reduce contaminant concentrations in groundwater so that the risk of migration of these contaminants would also be reduced. This system, which included three air sparge wells installed at the locations shown in Figure 2. The system operated for about six months, from July 2006 until January 2007.

(Aug. 6, 2007, Bob Schwarz) DEQ issued an NFA for this site on July 31, 2007.

Data Sources:

"Rowena Fuel Release, Emergency Response and Remedial Investigation," CH2M HILL, November 2005

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
NO FURTHER STATE ACTION REQUIRED (Primary Action)	07/31/2007	07/31/2007	<u>Robert Schwarz</u> (mailto:Bob.SCHWARZ@deq.oregon.gov)	VCS

[View Full Report Showing Action History \(ecsidetailfull.asp?segnbr=4065#actions\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx)

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- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting Robert Schwarz at the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>) or via email at bob.schwarz@deq.oregon.gov (<mailto:Bob.SCHWARZ@deq.oregon.gov>). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (<mailto:ximena.cruzcuevas@deq.state.or.us>) or contact the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 4151, UAL Hangar, Port of Portland

General Site Information

Site ID: 4151	Site Name: UAL Hangar, Port of Portland	CERCLIS No:
Address:	NW corner, Portland Int'l Airport, along NE Marine Dr. Portland 97218	
	County: Multnomah	Region: Northwest
Other location information:		
Investigation Status:	No further action required	
	Brownfield Site: No	NPL Site: No
	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 1N , 2E , 6	Tax Lots: 0300
	Latitude: 45.5966 deg.	Longitude: -122.6042 deg.
	Site Size: approx. 0.2 acre	
Other Site Names:		

Site Characteristics

General Site Description:	The site is currently a vacant lot.
Site History:	The former UAL hanger site is located along Northeast Marine Drive. The former hanger was operational from about 1940 to 1958. Operations included fueling and aircraft maintenance and included former above ground fuel storage tanks.

Contamination
Information:

(5/24/04 CH/SAP) Aircraft fueling and maintenance operations were performed at this location from about 1940 to 1958. Low level concentrations of diesel range hydrocarbons and VOCs were detected in site groundwater in May of 2003. Lead was detected in groundwater at 20.4 ug/L in one sample ♦ this level is above EPA maximum contaminant level (MCL) action level of 15 ug/L. Unclear at this time whether source areas for all detected contaminants have been fully characterized. (8/1/05 KJR/VCP) United Airlines joined ICP for ECSI #4150. Review of this site is being incorporated into this ICP agreement.

Manner and Time of
Release:

Hazardous
Substances/Waste
Types:

Pathways:

Environmental/Health
Threats:

Status of Investigative
or Remedial Action:

(3/15/06 KJR/ICP) The following is from DEQ's staff report recommending No Further Action dated 3/15/06. Six soil borings (GP-6 through GP-11) were drilled to 15 feet bgs in May 2003.

One soil sample collected from each soil boring was analyzed for diesel and heavy oil by NW Method TPH-Dx. Diesel and heavy oil were not detected in any of the soil samples. One soil sample (GP-7/S-3) was also analyzed for polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270-SIM and for RCRA 8 metals (arsenic, barium, cadmium, chromium, lead, mercury, silver, and selenium) by EPA Method 6020/7471A. PAHs were not detected. Only the following metal concentrations were detected: arsenic (2.43 milligrams per kilograms (mg/kg)), barium (93.8 mg/kg), chromium (11.2 mg/kg), and lead (3.57 mg/kg). The detected concentration of barium, chromium, and lead are less than their respective industrial PRGs. The detected concentration of arsenic exceeds the industrial PRG, but is less than DEQ's default background concentration of 7 mg/kg, and appears consistent with expected naturally occurring levels. Groundwater samples were analyzed from four soil borings (GP-6, GP-7, GP-8, GP-11) for diesel and heavy oil by NW Method TPH-Dx. Diesel was detected only in the groundwater samples from borings GP-6 and GP-7 at 4,850 ug/l and 303 ug/l, respectively. Heavy oil was not detected in any of the four groundwater samples. The detected concentrations of diesel in groundwater from boring GP-6 (4,850 ug/l) exceeds the occupational ingestion and inhalation from tap water pathway RBC of 350 ug/l. Groundwater from boring GP-6 was also analyzed for PAHs EPA Method 8270-SIM. PAHs were not detected. Groundwater from borings GP-7, GP-8, and GP-11 were analyzed for volatile organic compounds (VOCs) by EPA Method 8260B. Tert-butylbenzene, isopropylbenzene, and n-propylbenzene were detected in groundwater from borings GP-7 and GP-11 at levels ranging from 1.47 ug/l to 4.00 ug/l. VOCs were not detected in groundwater from boring GP-8. Detected concentrations of VOCs were less than their respective PRGs for tap water. Groundwater from boring GP-7 was also analyzed for dissolved RCRA 8 metals by EPA Method 6020/7470A. Concentrations of arsenic (2.61 ug/l), barium (32.9 ug/l), chromium (2.14 ug/l), and lead (20.4 ug/l) were detected. The concentrations of barium and chromium do not exceed their respective PRGs for tap water. The concentration of lead (20.4 ug/l) in groundwater from boring GP-7 exceeds the occupational ingestion and inhalation from tap water pathway RBC of 15 ug/l. The concentration of arsenic (2.61 ug/l) in groundwater from boring GP-7 exceeds the PRG for tap water of 0.045 ug/l as well as the default background level for fresh water of 2 ug/l. The detected concentrations of diesel in groundwater from boring GP-6 (4,850 ug/l) exceeds the occupational ingestion and inhalation from tap water pathway RBC of 350 ug/l. The concentration of lead (20.4 ug/l) in groundwater from boring GP-7 exceeds the occupational ingestion and inhalation from tap water pathway RBC of 15 ug/l. The concentration of arsenic (2.61 ug/l) in groundwater from boring GP-7 exceeds the PRG for tap water of 0.045 ug/l as well as the default background level for fresh water of 2 ug/l. Groundwater contamination identified at the sites is present in localized areas in the shallow groundwater aquifer. Currently there is no beneficial use of groundwater within the designated LOF for the former UAL hanger site. Future beneficial use of the Columbia River Sand, Troutdale Gravel, or deeper groundwater aquifers is possible at the sites, but beneficial use of the shallow fill and overbank deposit groundwater aquifers is unlikely. Based on the available data and the preceding discussion, a no further action determination is recommended for the former UAL hanger sites. Since remedial actions were not performed, a public comment period is not required.

Data Sources: Environmental Resources Management, February 17, 2006, ♦ Document for NFA Completion ♦
HartCrowser, June 16, 2003, ♦ Results of Special Environmental Audit for Subsurface Investigation ♦
HartCrowser, August 11, 2004, ♦ Land and Beneficial Water Use Survey (BUS) Portland International Airport ♦
Kennedy/Jenks Consultants, October 13, 2005, ♦ Level I Scoping Ecological Risk Assessment Terminal Expansion South East Quienscent and Detention Ponds ♦

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
No information is available			

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
NO FURTHER STATE ACTION REQUIRED (Primary Action)	03/17/2006	03/17/2006	Kathleen Daugherty (mailto:Katie.DAUGHERTY@deq.oregon.gov)	ICP

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- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
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You may be able to obtain more information about this site by contacting Kathleen Daugherty at the Northwest regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>) or via email at katie.daugherty@deq.oregon.gov (<mailto:Katie.DAUGHERTY@deq.oregon.gov>). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (<mailto:ximena.cruzcuevas@deq.state.or.us>) or contact the Northwest regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 4346, The Dalles Industrial Center

General Site Information

Site ID: 4346	Site Name: The Dalles Industrial Center	CERCLIS No:
Address:	Chenoweth Creek Industrial Subdivision The Dalles 97058	
	County: Wasco	Region: Eastern
Other location information:		
Investigation Status:	No further action required	
	Brownfield Site: No	NPL Site: No
	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 2N , 13E , 28	Tax Lots: 101
	Latitude: 45.6331 deg.	Longitude: -121.2019 deg.
	Site Size: 31 acres	
Other Site Names:		

Site Characteristics

General Site Description:

Site History:

Contamination Information: (3/3/05 DMC/SAS) Industrial Lands application reviewed byDEQ . Overall site includes ECSI #2383, which received a No Further Action determination by DEQ.

Manner and Time of Release:

Hazardous Substances/Waste Types:

Pathways:

Environmental/Health Threats:

Status of Investigative or Remedial Action: (3/3/05 DMC/SAS) Site received a No Further Action (NFA) determination from DEQ on 12/9/03.

Data Sources:

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
NO FURTHER STATE ACTION REQUIRED (Primary Action)	12/09/2003	12/09/2003	Daniel Crouse	SAS

[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=4346#actions\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx)

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For more information on this site contact the [Eastern regional office](https://www.oregon.gov/DEQ/Pages/Offices.aspx) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 4361, Farm Chemical & Fertilizer Co. - Port Dock

General Site Information

Site ID: 4361	Site Name: Farm Chemical & Fertilizer Co. - Port Dock	CERCLIS No:
Address:	Union ST & Port Dock The Dalles 97058	
	County: Wasco	Region: Eastern
Other location information:		
Investigation Status:	Suspect site requiring further investigation	
	Brownfield Site: No	NPL Site: No
		Orphan Site: No
		Study Area: No
Property:	Twنشp/Range/Sect: 1N , 13E , 3	Tax Lots:
	Latitude: 45.6044 deg.	Longitude: -121.1816 deg.
		Site Size:
Other Site Names:		

Site Characteristics

General Site Description:

Site History:

Contamination Information: (3/24/05 DMC/SAS) Site added to database for tracking as a former farm chemical distributor.

Manner and Time of Release:

Hazardous Substances/Waste Types:

Pathways:

Environmental/Health Threats:

Status of Investigative or Remedial Action: (3/24/05 DMC/SAS) Site screening recommended.

Data Sources: 1. Polk City Directories (1952, 1954, 1956, 1958 & 1960).
2. Sanborn Insurance maps.

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Site Screening recommended (EV) (Primary Action)	03/24/2005	03/24/2005	Daniel Crouse	SAS

[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=4361#actions\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx)

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For more information on this site contact the [Eastern regional office](https://www.oregon.gov/DEQ/Pages/Offices.aspx) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 4557, Northwest Aluminum - Section 2 Property

<u>General Site Information</u>			
Site ID: 4557	Site Name: Northwest Aluminum - Section 2 Property		CERCLIS No:
Address:	River RD The Dalles 97058		
	County: Wasco	Region: Eastern	
Other location information:			
Investigation Status:	No further action required		
	Brownfield Site: No	NPL Site: No	Orphan Site: No Study Area: No
Property:	Twنشp/Range/Sect: 2N , 13E , 28		Tax Lots: 400, 100
	Latitude: 45.6201 deg.	Longitude: -121.1987 deg.	Site Size: ~13 acres
Other Site Names:			
	Martin Marietta footprint		
	See also ECSI 72, 2165, 4793, 5995		

<u>Site Characteristics</u>	
General Site Description:	The site includes drainage ditches that formerly carried wastewater from the Northwest Aluminum Company plant adjacent and to the south of the site.

Site History:	(Bob Schwarz, June 27, 2006) The Northwest Aluminum Section 2 property is between River Road and the Columbia River. It is immediately North of the main portion of the Northwest aluminum site, which occupies 460 acres. The Section 2 property contains drainage channels that were previously used to convey and dispose of effluent and storm water from past aluminum operations. Sediment on the bottom of these channels has been found to have elevated levels of PAHs and arsenic. Lockheed Martin plans to remove the contaminated sediment during the summer of 2007. DEQ is working with the Oregon Department of State Lands to ensure that wetland protection requirements are addressed during this work.
Contamination Information:	Contaminants of potential concern include PAHs, arsenic, Maximum concentrations of contaminants exceeding risk screening levels are shown below: Analyte Max conc., mg/kg Benz(a)anthracene 493 Benzo(a)pyrene 545 Benzo(b)fluoranthene 763 Benzo(k)fluoranthene 280 Chrysene 448 Dibenzo(a,h)anthracene 128 Indeno(1,2,3-cd)pyrene 256 Arsenic 21.4
Manner and Time of Release:	See Site History
Hazardous Substances/Waste Types:	Arsenic, PAHs
Pathways:	
Environmental/Health Threats:	

Status of Investigative
or Remedial Action:

(Bob Schwarz, August 26, 2008) Lockheed Martin removed about 10,300 tons of contaminated soil in November and December 2006. Details of the site investigation and cleanup are summarized in the attached staff report.

DEQ worked with the Oregon Department of State Lands (ODSL) because a portion of the excavated area is within a wetland. ODSL plans to inspect the wetland in October 2008. DEQ intends to issue a No Further Action determination for this portion of the site following the ODSL inspection.

During the 2007 investigation, Lockheed discovered additional contamination further north on the property. Investigation and cleanup of this material is scheduled for 2008-2009.

(March 20, 2009, Bob Schwarz) In a letter dated March 20, 2009, ODSL stated that the wetland area has been restored satisfactorily and all substantive requirements have been met. DEQ issued a No Further Action determination for this portion of the site on March 20, 2009.

(July 1, 2010, Bob Schwarz) The second phase of removal of contaminated sediment took place in September and October 2009, and covered an area of approximately a half acre. The primary objective of this project was to remove sufficient contaminated sediment so that residual PAH concentrations were below risk-based concentrations (RBCs) for nonresidential exposure. Approximately 3,600 tons of contaminated sediment was excavated and taken to Columbia Ridge Landfill near Arlington, Oregon for disposal.

(September 2, 2010, Bob Schwarz) DEQ concluded that, following the second phase of cleanup, acceptable risk levels have been achieved. DEQ therefore proposed a No Further Action determination. A public comment period was held regarding this proposal in August 2010. No comments were received. DEQ issued the No Further Action determination on September 1, 2010.

Data Sources:

Arcadis. 2008. Sampling and Analysis Plan, Lockheed Martin Corporation, Section 2 Swales Phase 2. June 3, 2008.

Arcadis. 2009a. Voluntary Cleanup Work Plan, Section 2 Swales ♦ Phase 2. Revised June 18, 2009.

Arcadis. 2009b. Section 2 Swales ♦ Phase 2 Voluntary Cleanup Action Closure Report, Former Martin Marietta Reduction Facility. November 2009.

Substance Contamination Information

Substance

Media Contaminated

Concentration Level

Date Recorded

No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
NO FURTHER STATE ACTION REQUIRED (Primary Action)	09/10/2010	09/10/2010	<u>David Anderson</u> (mailto:David.ANDERSON@deq.oregon.gov)	VCS

[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=4557#actions\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx)

Key to Certain Acronyms and Terms in this Report:

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- **Region:** DEQ divides the state into three regions, Eastern, Northwest, and Western; the regional office shown is responsible for site investigation/cleanup.
- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting David Anderson at the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>) or via email at david.anderson@deq.oregon.gov (mailto:David.ANDERSON@deq.oregon.gov). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (mailto:ximena.cruzcuevas@deq.state.or.us) or contact the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 4793, Northwest Aluminum Co.

Site Photos			
Click to View Photo	Picture Date	Caption	Size
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6476&siteID=4793)	08/19/2008	Entrance to plant.	234 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6477&siteID=4793)	08/19/2008	Northeast side of plant.	251 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6478&siteID=4793)	08/19/2008	Plant dismantling in progress.	231 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6479&siteID=4793)	08/19/2008	Cranes at north end of plant.	246 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6480&siteID=4793)	08/19/2008	Central portion of the east side of the plant.	220 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6481&siteID=4793)	08/19/2008	CERCLA landfill looking south.	226 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6482&siteID=4793)	08/19/2008	West side dismantling.	208 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6483&siteID=4793)	08/19/2008	West side of plant.	238 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6484&siteID=4793)	08/19/2008	Debris pile.	227 Kb

[View Photo](#)

(<http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6485&siteID=4793>)

08/19/2008

Growing debris piles on west side.

185 Kb

General Site Information

Site ID: 4793	Site Name: Northwest Aluminum Co.	CERCLIS No:
Address:	3313 W 2nd St. The Dalles 97058	
	County: Wasco	Region: Eastern
Other location information:	See ECSI #5955 for specific information about Tax Lot 200, and ECSI #4557 for specific information about the Section 2 property.	
Investigation Status:	Listed on CRL or Inventory	
	Brownfield Site: No	NPL Site: No
	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 2N , 13E , 28	Tax Lots: 200, 700, 901, 1000, 300
	Latitude: 45.6242 deg.	Longitude: -121.2064 deg.
	Site Size:	
Other Site Names:		
	Martin Marietta	
	NW Aluminum	
	Harvey Aluminum	

Site Characteristics

General Site
Description:

Excerpt from 5/14/07 article in The Dalles Chronicle:

"Northwest Aluminum Company announced Friday [5/11/07] that its former smelter plant in The Dalles will be dismantled and razed, and the site restored for sale and redevelopment over the course of the next two years.

Northwest Aluminum has entered into an agreement with Pro-SE Services, Inc., a California company specializing in engineering and demolition services, that includes the complete dismantling and demolition of the plant structures, removal of process materials and wastes, and preparation of the site for redevelopment.

According to a press release from the aluminum company, it will hire about 25 local workers to perform certain utility and maintenance services, The property will be offered for redevelopment upon completion of the project sometime in 2009.

According to a press release from the aluminum company, the site restoration project will have negligible environmental impact, pose no risk to the surrounding community and cause no disruption to neighboring businesses.

The US Environmental Protection Agency, the Oregon Department of Environmental Quality and the City of The Dalles will perform oversight for various phases of the project, according to the release...."

Site History:

Contamination
Information:

(4/4/07 DMC/SAS) Site screening for all areas of the facility other than the CERCLA and RCRA landfills (see ECSI #72) and areas covered by VCP agreement for ECSI 4457.

(4/17/07 KJR/SAS) Site information request sent on 4/17/07. Response due 5/14/07.

Manner and Time of
Release:

Hazardous
Substances/Waste
Types:

Pathways:

Environmental/Health
Threats:

Status of Investigative
or Remedial Action:

(8/25/07 DMC/SAS) PRPs were given option to join Voluntary Cleanup program (VCP) in order to avoid the formal SAS screening process. VCP letter agreement sent to operator; site will be transferred from Site Assessment (SAS) to VCP when agreement is signed.

(March 7, 2008, Bob Schwarz) Removal of buildings is underway. Northwest Aluminum Company's consultant, CH2M HILL, prepared a draft work plan for soil and groundwater sampling. DEQ provided comments, which CH2M HILL is incorporating into the final work plan.

(April 7, 2009, Bob Schwarz) Building demolition is complete. DEQ has agreed to contaminant concentration limits for concrete proposed for crushing and disposal onsite as fill. Soil and groundwater sampling are underway.

(July 1, 2010, Bob Schwarz) Northwest Aluminum's consultant has installed four groundwater monitoring wells in the shallow-most aquifer (the S aquifer), which is not used for drinking water. Fluoride is elevated in one of them up to 35 parts per million (ppm). For reference, the drinking water limit for fluoride is 4 ppm. DEQ is working with Northwest Aluminum's consultant to develop a way to calculate how much contaminant concentrations (fluoride and cyanide) both in soil and in the shallow aquifer groundwater would result in exceedances of drinking water standards in the underlying aquifers, which could potentially be used for drinking.

(April 25, 2012, Bob Schwarz) CH2M HILL completed a remedial investigation, risk assessment and remedial action report summarizing cleanup work conducted at this site. A copy of the report is attached.

(May 9, 2012, Bob Schwarz) On May 8, DEQ issued a public notice of its intent to issue a No Further Action determination for the site. Public comments are requested by May 23, 2012.

(September 27, 2012, Bob Schwarz) DEQ received comments from several parties by the May 23, 2012 deadline. These comments and DEQ responses are documented in a September 18, 2012 memo, attached. Upon review of these comments, DEQ maintains the conclusion that a No Further Action determination is appropriate. This NFA determination was issued on September 27, 2012. A copy is attached.

(October 4, 2013, Bob Schwarz) Two areas of note regarding the cleanup:

1. Northwest Aluminum removed a buried asbestos-lined pipe for most of its length. However, a portion of this pipe runs beneath a transmission tower, so access for removal of this portion of the pipe was not possible.
2. Some PAH-contaminated soil remains beneath 16 feet of clean fill, just south of the former smelter building.

While exposure to either of these materials is unlikely, DEQ intended to have deed notices filed with Wasco County, to alert the public to these conditions. The County refused to file these documents, saying they have the authority to file certain types of documents, such as deed restrictions, but not deed notices.

More information about the locations of these areas is provided with the draft deed notices. Although they were not filed with Wasco County, they are provided here as attachments 7 and 8 of DEQ's staff report.

(Sept. 1, 2016, Bob Schwarz) DEQ issued public notice today requesting comments on its proposed consent judgment for a prospective purchaser agreement with Madrone, LLC concerning its potential acquisition of approximately 98 acres between West Second Street and River Road in The Dalles, Oregon. This property was formerly occupied by the main buildings of the Northwest Aluminum site, whose address was 3313 W. Second Street, The Dalles. The applicant proposes to develop the site for productive use, consistent with the site's zoning designation for industrial use.

The public notice document for this proposed consent judgment, and copies of the draft consent judgment and related documents are attached.

(B Schwarz, 8-16-2017) On August 15, 2017, Design LLC submitted an application for a Prospective Purchaser Agreement (PPA) for the main portion of the former aluminum plant. A copy of this application is attached.

(B Schwarz, 1-30-2018) A consent judgment was recorded with Wasco County on Dec. 8, 2017, along with an Easement and Equitable Servitudes (EES) document. Copies of both are attached.

(August 28, 2018) DEQ has determined that the requirements of the consent judgment have been met by Design LLC. DEQ therefore intends to issue a Certification of Completion for this work. Public comments regarding this decision will be accepted until October 4, 2018.

(Dec 18, 2020) The Certificate of Completion for work conducted by Design LLC was recorded with Wasco County on Dec. 17, 2020. A copy of this certificate is attached.

Data Sources:

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
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No Further Action

(Conditional) (Primary
Action)

09/27/2012

09/27/2012

David Anderson

(mailto:David.ANDERSON@deq.oregon.gov)

VCS

[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=4793#actions\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx)

Site Environmental Controls

Control Description	Begin Date	End Date	Last Reviewed By	Last Review Date
Easement Equitable Servitude	11/13/2012		Bob Schwarz	11/13/2012
Comments: Groundwater use restriction, notification of zoning changes				
Deed Notice	07/08/2009		Bob Schwarz	07/08/2009
Comments: As required under 40 CFR 761.61(a)(8), a deed notice was filed with Wasco County indentifying the location of the capped PCB cleanup area, which covers approximately 750 square feet. USEPA approved the PCB cleanup in a letter dated May 21, 2009.				

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- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
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Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 4799, Underwood Tanker Rollover - Lindsey Pond

General Site Information

Site ID: 4799	Site Name: Underwood Tanker Rollover - Lindsey Pond	CERCLIS No:
Address:	Old Columbia River Hwy near Lindsey Creek	
	County: Hood river	Region: Eastern
Other location information:		
Investigation Status:	Suspect site requiring further investigation	
	Brownfield Site: No	NPL Site: No
		Orphan Site: No
		Study Area: No
Property:	Twنشp/Range/Sect: 2N , 9E , 5	Tax Lots:
	Latitude: 45.6885 deg.	Longitude: -121.7141 deg.
		Site Size:
Other Site Names:		

Site Characteristics

General Site Description:

Site History:

Contamination Information: (4/18/07 DMC/SAS) Site added for tracking as a historic gasoline release. Tanker truck driven by Tom Underwood overturned near Lindsey Creek on 4/2/46 and approximately 5,000-6,000 gallons of gasoline drained into the "pool between the highway and the railroad."

No record of cleanup being performed.

Manner and Time of Release: Tanker truck rollover on 4/2/46.

Hazardous Substances/Waste Types: Gasoline.

Pathways:

Environmental/Health Threats:

Status of Investigative or Remedial Action: (4/18/07 DMC/SAS) Tracking recommended.

Data Sources: 1. Hood River News (4/5/46).

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
No information is available			

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Site Screening recommended (EV) (Primary Action)	04/18/2007	04/18/2007	Daniel Crouse	SAS
View Full Report Showing Action History (ecsidetailfull.asp?seqnbr=4799#actions)				

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- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
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For more information on this site contact the Eastern regional office
(<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 5026, Mosier WWTP - Expansion Project

Site Photos

Click to View Photo	Picture Date	Caption	Size
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6465&siteID=5026)	05/13/2008	Impacted groundwater in pit.	115 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6466&siteID=5026)	05/13/2008	Impacted groundwater in excavation.	104 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6467&siteID=5026)	07/11/2008	Site looking north.	511 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6468&siteID=5026)	07/11/2008	Site looking northwest.	434 Kb

General Site Information

Site ID: 5026	Site Name: Mosier WWTP - Expansion Project	CERCLIS No:
Address:	Hwy 30 (north of) & UPRR tracks (south of) Mosier 97040	
	County: Wasco	Region: Eastern
Other location information:	Rock Creek bisects the property.	
Investigation Status:	Suspect site requiring further investigation	
	Brownfield Site: No	NPL Site: No
		Orphan Site: No
		Study Area: No
Property:	Twنشp/Range/Sect: 2N , 11E , 2	Tax Lots: 200
	Latitude: 45.6849 deg.	Longitude: -121.4044 deg.
		Site Size: 0.27 acres

Other Site Names:

Mosier Waste Water Treatment Plant

Site Characteristics

General Site Description:

Site History:

Contamination Information: (5-19-08 KJR/VCP) The City of Mosier is expanding its sewage treatment plant. They are excavating a pit that is about 50x50 feet for a new clarifier tank. The pit was dug down to the water table and petroleum contamination was discovered when they started to dig a dewatering sump in one corner of the pit.

Manner and Time of Release:

Hazardous Substances/Waste Types:

Pathways:

Environmental/Health Threats:

Status of Investigative or Remedial Action: (Bob Schwarz, April 7, 2009) A project summary is provided in the attached September 30, 2008 memo.

Data Sources:

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Closeout activities on completed project (Primary Action)	06/30/2013	06/30/2013	<u>Robert Schwarz</u> (mailto:Bob.SCHWARZ@deq.oregon.gov)	VCP

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- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
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- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting Robert Schwarz at the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>) or via email at bob.schwarz@deq.oregon.gov (<mailto:Bob.SCHWARZ@deq.oregon.gov>). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (<mailto:ximena.cruzcuevas@deq.state.or.us>) or contact the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 5083, Dry Cleaner - E 1st St. (Former)

General Site Information

Site ID: 5083	Site Name: Dry Cleaner - E 1st St. (Former)	CERCLIS No:		
Address:	E 1st St. The Dalles 97058			
	County: Wasco	Region: Eastern		
Other location information:	North side of East 1st Street between Union and Court.			
Investigation Status:	Suspect site requiring further investigation			
	Brownfield Site: No	NPL Site: No	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 1N , 13E , 3		Tax Lots:	
	Latitude: 45.603 deg.	Longitude: -121.1827 deg.	Site Size:	
Other Site Names:				

Site Characteristics

General Site Description:

Site History:

Contamination Information: (9/25/08 DMC/SAS) Site added for tracking as a former dry cleaner. Site also had a underground storage tank (UST) identified on the 1926 Sanborn map.

Manner and Time of Release:

Hazardous Substances/Waste Types:

Pathways:

Environmental/Health Threats:

Status of Investigative or Remedial Action: (9/25/08 DMC/SAS) Site screening recommended.

Data Sources: 1. Sanborn Insurance map (1926).

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Site Screening recommended (EV) (Primary Action)	09/25/2008	09/25/2008	Daniel Crouse	SAS

[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=5083#actions\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx)

Key to Certain Acronyms and Terms in this Report:

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- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

For more information on this site contact the [Eastern regional office](https://www.oregon.gov/DEQ/Pages/Offices.aspx) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 5106, Hwy 30 & Rock Creek Petroleum Contamination

General Site Information

Site ID: 5106	Site Name: Hwy 30 & Rock Creek Petroleum Contamination	CERCLIS No:
Address:	Hwy 30 & Rock Creek (SE corner of) Mosier 97040	
	County: Wasco	Region: Eastern
Other location information:		
Investigation Status:	Suspect site requiring further investigation	
	Brownfield Site: No	NPL Site: No
		Orphan Site: No
		Study Area: No
Property:	TwnsHP/Range/Sect: 2N , 11E , 2	Tax Lots:
	Latitude: 45.6849 deg.	Longitude: -121.4044 deg.
		Site Size:
Other Site Names:		

Site Characteristics

General Site Description:

Site History:

Contamination Information: (11/21/08 DMC/SAS) Site referred to ER/SAS after petroleum contamination from an unknown source impacted the City's waste water treatment plant (WWTP).

Manner and Time of Release:

Hazardous Substances/Waste Types:

Pathways:

Environmental/Health Threats:

Status of Investigative or Remedial Action: (11/21/08 DMC/SAS) Site screening in progress.

Data Sources:

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Site Screening recommended (EV) (Primary Action)	12/05/2012		Kathleen Daugherty (mailto:Katie.DAUGHERTY@deq.oregon.gov)	SAS

[View Full Report Showing Action History \(ecsdetailfull.asp?seqnbr=5106#actions\)](http://ecsdetailfull.asp?seqnbr=5106#actions)

Key to Certain Acronyms and Terms in this Report:

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- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
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6811, or via email at ximena.cruzcuevas@deq.state.or.us (<mailto:ximena.cruzcuevas@deq.state.or.us>) or contact the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 5112, Central Cleaners (Former)

General Site Information

Site ID: 5112	Site Name: Central Cleaners (Former)	CERCLIS No:
Address:	404 Washington St. The Dalles 97058	
	County: Wasco	Region: Eastern
Other location information:		
Investigation Status:	Suspect site requiring further investigation	
	Brownfield Site: No	NPL Site: No
		Orphan Site: No
		Study Area: No
Property:	Twنشp/Range/Sect: 1N , 13E , 3	Tax Lots:
	Latitude: 45.6003 deg.	Longitude: -121.1825 deg.
		Site Size:
Other Site Names:		

Site Characteristics

General Site Description:

Site History:

Contamination Information: (12/8/08 DMC/SAS) Site added for tracking as a former dry cleaner in the early to mid 1930s. Dry cleaner used carbon tetrachloride in 1933.

Manner and Time of Release:

Hazardous Substances/Waste Types:

Pathways:

Environmental/Health Threats:

Status of Investigative or Remedial Action: (12/8/08 DMC/SAS) Site screening recommended.

Data Sources: 1. The Dalles Chronicle newspaper articles & ads (5/26 & 6/2/33).
2. Sanborn Insurance maps (1926 & 1960).

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Site Screening recommended (EV) (Primary Action)	12/08/2008	12/08/2008	Daniel Crouse	SAS

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For more information on this site contact the [Eastern regional office](https://www.oregon.gov/DEQ/Pages/Offices.aspx) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 5181, Vogt Building (The)

<u>General Site Information</u>				
Site ID: 5181	Site Name: Vogt Building (The)		CERCLIS No:	
Address:	312-320 E 2nd St. The Dalles 97058			
	County: Wasco		Region: Eastern	
Other location information:				
Investigation Status:	Suspect site requiring further investigation			
	Brownfield Site: No	NPL Site: No	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 1N , 13E , 3		Tax Lots:	
	Latitude: 45.6007 deg.	Longitude: -121.181 deg.	Site Size:	
Other Site Names:				

<u>Site Characteristics</u>	
General Site Description:	
Site History:	
Contamination Information:	hydraulic oil
Manner and Time of Release:	
Hazardous Substances/Waste Types:	

Pathways:

Environmental/Health

Threats:

Status of Investigative
or Remedial Action:

(April 24, 2009, Bob Schwarz) Mark Yinger Associates (Yinger) found hydraulic oil staining on the dirt floor in a portion of the basement. Lab analysis (lab report attached) indicated minor levels of contamination. Yinger told DEQ by phone that they plan to remove wooden planks containing oil and cover the dirt floor with concrete. On April 20, 2009, site owner Katherine Drabek signed an agreement to work with DEQ's Cleanup Program. However, buyer agreed a few days later to purchase the building without DEQ approval of remedial measures. Based on contaminant concentrations and proposed remedial measures, DEQ agreed to not pursue the site further.

Data Sources:

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Site Confirmatory Sampling recommended (Primary Action)	04/24/2009	04/24/2009	<u>Robert Schwarz</u> (mailto:Bob.SCHWARZ@deq.oregon.gov)	VCP

[View Full Report Showing Action History \(ecsdetailfull.asp?seqnbr=5181#actions\)](#)

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- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to

Study Areas.

- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting Robert Schwarz at the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>) or via email at bob.schwarz@deq.oregon.gov (<mailto:Bob.SCHWARZ@deq.oregon.gov>). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (<mailto:ximena.cruzcuevas@deq.state.or.us>) or contact the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 5223, NAPA Auto Parts Bldg.

<u>General Site Information</u>				
Site ID: 5223	Site Name: NAPA Auto Parts Bldg.		CERCLIS No:	
Address:	101 E 2nd St. The Dalles 97058			
	County: Wasco		Region: Eastern	
Other location information:				
Investigation Status:	No further action required			
	Brownfield Site: No	NPL Site: No	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 1N , 13E , 3		Tax Lots:	
	Latitude: 45.6023 deg.	Longitude: -121.1837 deg.	Site Size:	
Other Site Names:				

<u>Site Characteristics</u>	
General Site Description:	
Site History:	
Contamination Information:	
Manner and Time of Release:	
Hazardous Substances/Waste Types:	

Pathways:

Environmental/Health

Threats:

Status of Investigative
or Remedial Action:

PCS discovered in basement of NAPA auto parts during The Dalles Streetscape Project in 2001. The source is believed to be hydrocarbon cont. related to the former use of the building as a service station w/ above ground tanks in the 1930's. 4 soil samples were taken at 20' intervals. GPH detected in 2 samples at 1300-2100 mg/kg. These 2 were then sampled for contaminants of concern. Benzene (0.054 and 0.017 mg/kg), ethylbenzene (1.3 and 0.13 mg/kg) xylenes (0.18 and 0.077 mg/kg) and naphthalene (0.029 and 0.016 mg/kg) were detected in the two samples containing gasoline. Each constituent was present at a concentration less than the DEQ generic risk based threshold values for the evaluated possible exposure pathways listed in DEQ Sept. 99 Guidance, "Risk Based Decision Making for the Remediation of Pet. Cont. Sites". Toluene, EDB, EDC, leachable lead were < lab reporting limits. 44 tons of soil to Wasco LF. NFA issued by Warren Niemi on July 18, 2001. Liz Clark 7/7/09.

Data Sources:

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
NO FURTHER STATE ACTION REQUIRED (Primary Action)	07/18/2001	07/18/2001	Warren Niemi	SAS

[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=5223#actions\)](http://ecsidetailfull.asp?seqnbr=5223#actions)

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unable or unwilling to use their own resources for cleanup.

- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
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For more information on this site contact the Eastern regional office
(<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 5335, Mosier Gas Station (Former)

Site Photos

Click to View Photo	Picture Date	Caption	Size
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7115&siteID=5335)	07/17/2012	site photo	1591 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7116&siteID=5335)	07/17/2012	site photo	1606 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7117&siteID=5335)	07/17/2012	site photo with school in background	1391 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6774&siteID=5335)	12/22/2009	Station looking east.	611 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6775&siteID=5335)	12/22/2009	Station looking west.	515 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6776&siteID=5335)	12/22/2009	UST area looking west.	784 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=6777&siteID=5335)	12/22/2009	Pump island looking west.	643 Kb

General Site Information

Site ID: 5335	Site Name: Mosier Gas Station (Former)	CERCLIS No:
Address:	1202 1st AVE Mosier 97040	
	County: Wasco	Region: Eastern

Other location
information:

Investigation Status: No further action required

Brownfield Site: Yes

NPL Site: No

Orphan Site:
No

Study Area:
No

Property:

Twنشp/Range/Sect: 2N , 11E , 1

Tax Lots: 5200

Latitude:

45.6832 deg.

Longitude:

-121.3988 deg.

Site Size: 0.55 acres

Other Site Names:

Site Characteristics

General Site
Description:

Site History:

Contamination
Information:

(5/3/10 KJR/SAS) The site has been a gasoline service station since at least 1965. This site has been closed for over a year. The two 15,000 gallon USTs currently located on the property are in temporary closure.

Two releases of petroleum have been documented at the site and are summarized below.

◆ LUST No. 33-96-0013 Four 6,000-gallon USTs were decommissioned in place in August 1996. The USTs were not filled with inert material but were allowed to be used by the City of Mosier Fire Department for storing water. An estimated 30 cubic yards of PCS was left in place beneath the USTs at a depth ranging from 12 feet to 14 feet bgs. The PCS is located at sufficient depth and at concentrations that would not required any use restrictions on the property. A Pocket Closure No Further Action determination was issued for this LUST release on June 15, 1999.

◆ LUST No. 33-00-0009 A 550 gallon waste oil UST was decommissioned in place in June 2000. Two soil samples were collected, one at either end. One soil sample contained a concentration of diesel at a level of 209 mg/kg. This detected concentration of diesel is less than all generic RBCs for all pathways and receptors. A No Further Action determination was issued for this LUST release on January 17, 2002.

DEQ has requested and recieved EPA approval to perform a Phase I ESA.

Manner and Time of
Release:

Hazardous
Substances/Waste
Types:

Pathways:

Environmental/Health
Threats:

Status of Investigative
or Remedial Action:

(7/16/10 KJR/SAS) A Phase 1 ESA was performed at the site. The USTs were identified as a REC and additional assessment is needed.

(8/9/12 KJR/SAS) another Phase 1 ESA was completed at the site to facilitate the sale of the property. Same REC identified as in 2010 ESA.

(2/11/13 KJR/SAS) A site specific assessment is underway at the property and will include the removal of all USTs to evaluate the subsurface.

(7/11/13 KJR/SAS) Assessment was completed at the property and included the removal of all USTs from the property. Results of SSA are summarized below.

Two 15,000-gallon gasoline and diesel underground storage tanks (USTs) and one 1,100 gallon heating oil UST were decommissioned by removal in May 2013. Four 6,000-gallon USTs and one 550-gallon waste oil UST that were previously decommissioned in place were also removed from the site in May 2013. Groundwater was not encountered in any of the excavations.

The two 15,000-gallon USTs were fiberglass. The UST, labeled as UST#5 on Figure 2, was divided internally to hold two types of fuel. Petroleum contaminated soil (PCS) was noted in localized areas on the north and east sidewalls of the excavation and near the east end of UST #6.

Confirmation soil samples were collected from beneath each end of each UST, from beneath the associated piping run, and from the PCS observed along the eastern sidewall at 6 feet below ground surface (bgs). Low levels of petroleum products and constituents were detected.

The heating oil UST was removed and contamination was not observed in the excavation. Two confirmation soil samples were collected at 11 feet bgs. Concentrations of diesel and heavy oil were not detected.

The four 6,000-gallon USTs were decommissioned in place in August 1996. PCS was documented and leaking UST (LUST) number 33-96-0013 was assigned. A no further action letter was issued in June 1999 allowing a pocket of PCS to remain in place.

During the removal of the four 6,000-gallon USTs in May 2013, contamination was noted between the fill ports of the two southwestern USTs, labeled as UST #1 and UST #2 on the enclosed Figure 2. Confirmation soil samples documented petroleum products and constituents remain present at 13 feet bgs.

5. The waste oil UST was decommissioned in place in June 2000. PCS was documented and LUST number 33-00-0009 was assigned. The PCS was less than applicable risk-based concentrations (RBCs). A no further action letter was issued in January 2002.

During the removal of the waste oil UST in May 2013, contamination was noted along the southern sidewall of the excavation, near the building. Diesel and heavy oil were not detected in the confirmation soil samples collected from beneath each end of the waste oil UST. Diesel (1,900 milligrams per kilograms (mg/kg) and heavy oil (8,100 mg/kg) were detected in the soil sample collected from 3 feet bgs along the southern

sidewall.

6. A conceptual site model, including a land and beneficial water use survey was completed at the site. The locality of the facility was defined as the property boundary. The pocket of PCS along the southern sidewall of the waste oil UST excavation exceeds several RBC including construction worker ingestion, dermal contact, and inhalation. However the PCS is currently capped by the building, limiting the potential for direct contact. During future redevelopment of the property this material will need to be managed in accordance with DEQ regulations and policies.

Contamination remains on the former Mosier Gas site. DEQ approves leaving this contamination because the contamination does not present an unacceptable risk to human health, safety, welfare and the environment.

NFA was issued on 7/11/13.

Select site documents may be viewed in the Site Document section of this database.

Data Sources:

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
NO FURTHER STATE ACTION REQUIRED (Primary Action)	07/11/2013	07/11/2013	Kathleen Daugherty (mailto:Katie.DAUGHERTY@deq.oregon.gov)	SAS

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Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 5390, Sundial Marine Construction & Repair

General Site Information

Site ID: 5390	Site Name: Sundial Marine Construction & Repair	CERCLIS No:
Address:	5605 NE Sundial Rd. Troutdale 97060	
	County: Multnomah	Region: Northwest
Other location information:	The site is a 21.6-acre parcel comprised of two adjoining tax lots located along the south shore of the Columbia River near River Mile 119.7. The site lies at the northwest corner of the City of Troutdale's Urban Growth Boundary. The site shares its western property line with the City of Fairview's northeastern municipal boundary, and the northeastern boundary of the City of Portland's Columbia South Shore Wellfield Wellhead Protection Area. Salmon Creek lies 0.25-mile south of the site; the Portland-Troutdale Regional Airport lies 0.65-mile south-southeast; the Sandy River lies 0.77-mile to the east; Blue Lake Regional Park lies 0.95-mile to the west-southwest; Interstate Highway 84 Exit 17 for Marine Drive lies 1.25-miles southeast of the site.	
Investigation Status:	No further action required	
	Brownfield Site: No	NPL Site: No
	Orphan Site: No	Study Area: No
Property:	Twtnshp/Range/Sect: 1N , 3E , 22	Tax Lots: 100,400
	Latitude: 45.5635 deg.	Longitude: -122.4149 deg.
	Site Size: 21.63 acres	
Other Site Names:	Sundial Marine Tug & Barge Works, Inc. Russell Tugboat and Moorage Co.	

Site Characteristics

General Site
Description:

The site is a ship and barge building, painting, and repair facility located on a 21.6-acre tract of land along the south shore of the Columbia River, within the northwest corner of the City of Troutdale's Urban Growth Boundary. The site is completely fenced; access is controlled at a security office near the center of the site's eastern property line.

Ship building and repair activities are conducted on the northeastern 1/3 of the site. A 300-foot long spud barge and 0.4-acre drydock project into the Columbia River, perpendicular to river flow. A 0.8-acre surface water inlet basin is located at the northeast corner of the site. A 3.3-acre man-made lagoon occupies much of the northwestern quarter of the site. Two wetland areas totalling about 3.65-acres occupy the southern 1/3 of the site.

An aggregate mining operation owned by Knife River Corporation (formerly Morse Bros., Inc.) is located immediately east of the site. A 41-acre forested parcel owned by Metro Parks and Greenspaces is located immediately west of the site. A narrow sliver of wetlands owned by Fort James Corporation separates Metro's greenspaces parcel from the Columbia River. The Port of Portland owns approximately 250-acres of largely undeveloped industrial property south of the site.

Site History:

Marine construction and repair activities have been conducted at the site for more than 35 years. The property had previously been used for farming and ranching. A 3.3-acre lagoon on the northwestern 1/3 of the site was constructed in about 1970, but is currently being backfilled with river sediment dredgings as part of a fish habitat enhancement project.

Site river and lagoon sediments contain elevated concentrations of a broad variety of contaminants, including total and leachable metals (As, Cd, Cu, Pb, Zn), DDTs, TBT, PCBs (1254, 1260), PAHs, dibenzofuran, and phenol.

Site stormwater runoff, which discharges to the Columbia River, has, since 1994, been contaminated with elevated metals concentrations (As, Cd, Cr, Cu, Pb, Hg, Ni, Zn), and less frequently with Al, Ba, oil & grease, and cyanide.

Drinking water from the site's PWS well has contained higher than anticipated concentrations of As, Ni, and fluoride, although groundwater test data is extremely limited. Sodium concentrations in drinking water have exceeded Alert Levels, once by more than a factor of 20.

Soils in the site's Prefab Construction Platform area were contaminated with elevated concentrations of total and leachable metals (As, Ba, Cd, Cr, Pb, Hg, Se, Ag). Contaminated soils were excavated in 2000, but the full extent of soil contamination was never defined, and no cleanup confirmation sampling was conducted.

Past hazardous substance and hazardous waste handling and storage practice may have further contaminated site soils. Further investigation and cleanup are needed.

The site has signed an intent-to-participate in DEQ's voluntary cleanup program. DEQ anticipates a report in November 2011 documenting a preliminary site assessment of environmental contamination at the site.

Contamination
Information:

Columbia River sediments sampled around the site's Drydock in July 1995 contained concentrations of metals (As, Cd, Cu, Pb, and Zn), DDD, DDE, Tributyltin, PCBs (Aroclors 1254 and 1260), Phenol, and PAHs that exceeded DEQ Ecological Risk Assessment Screening Levels for Freshwater Sediments, as well as anticipated background sediment concentrations for the 40-mile reach of the Columbia River between Bonneville Dam and the mouth of the Willamette River. A single sediment sample collected from the site's 3.3-acre manmade lagoon in July 1995 contained concentrations of DDD, DDE, and Tributyltin that also exceeded DEQ Ecological Risk Assessment Screening Levels for freshwater sediments, and anticipated background sediment concentrations for the adjoining 40-mile reach of the Columbia River.

Metals (As, Cd, Cu, Pb, and Zn) in sediments from the two areas were also leachable.

Maintenance Dredging Permits were issued to allow sediments from these two areas to be dredged and deposited on upland portions of the site. If applied to the site surface, sediments from one of the sampling locations contained Arsenic at sufficiently high concentration to represent a potential occupational contact/ingestion/inhalation risk for on-site workers, as well as a potential leachability risk for migration to groundwater used as residential and occupational drinking water. River sediment samples contained Lead at sufficiently high concentrations to represent a potential leaching risk to groundwater used as an occupational and residential drinking water source. The concentration of leachable lead from one sediment sample exceeded the respective Drinking Water MCL.

The river sediment concentrations of metals (Cr, Cu, Pb, and Zn), DDT, and dibenzofuran were sufficiently high to also represent a potential threat to upland ecological receptors (plants, birds, invertebrates, and mammals) if deposited on upland portions of the site.

Metals (As, Cd, Cu, Pb, and Zn) in the dredged sediments were sufficiently leachable to represent a potential ecological risk to aquatic life if discharged back to river and/or lagoon.

The site's stormwater runoff, sampled between Summer 1994 and Summer 2010, contained metals (Al, As, Ba, Cd, Cr, Cu, Pb, Hg, Ni, and Zn) at concentrations that exceed DEQ Stormwater Screening Levels, and/or DEQ's Ecological Risk Assessment Screening Levels for Freshwater Aquatic Life. The stormwater concentrations of Cadmium, Copper, Chromium, Lead, and Zinc have sometimes exceeded National Recommended Water Quality Criteria for Acute Freshwater Toxicity[CMC]; copper and zinc concentrations have frequently exceeded the CMC. Copper concentrations have often exceeded the 95th- to 99th-percentile levels for industrial stormwater in DEQ's Northwest Region. Although the site's stormwater quality has improved over the years, the elevated concentrations of metals in site stormwater may have contributed to localized surface water sediment contamination.

A sediment sample collected along the west side of the site's Drydock in February 2001, contained porewater TBT at a concentration that exceeded DEQ's Ecological Risk Assessment Screening Level for Freshwater Aquatic Life, although the sampling location was later concluded to lie about 30-feet outside of the site's proposed sediment maintenance dredging area.

River sediments sampled in the site's Boat Launch area and east of the site's Drydock area in January 2005 contained concentrations of metals (Cd, Cu, and Zn), DDD, DDE, and DDT that exceeded DEQ Ecological Risk Assessment Screening Levels for Freshwater Aquatic Life, and DEQ Sediment Bioaccumulation Screening Values.

Soils at the site's 8,600-square-foot Prefab Construction Platform area were contaminated with sandblast grit and metal cuttings when sampled in January and March 2000. Total metals concentrations (As, Ba, Cd, Cr, Pb, Hg, Se, and Ag) in soils exceeded anticipated background concentrations, and represented potential risks to both human health and ecological receptors. The metals were also leachable, and represented both a potential runoff threat to nearby ecological receptors, as well as a potential leaching threat to groundwater used for human consumption. One soil sample contained sufficient leachable lead to qualify excavated soil as a hazardous waste. 198-tons of metals-contaminated soil was excavated and sent to Hillsboro Landfill for disposal. However, there is no documentation to indicate that the full vertical and horizontal extent of soil contamination was ever determined, and no record to indicate that soil cleanup confirmation samples were ever collected and analyzed.

Manner and Time of Release:

Sediment contamination in the site's manmade lagoon and in the Columbia River may be attributable to stormwater runoff from on-site boat building, repair, and painting activities; over-water boat building, repair, and painting activities; and potential deposition of suspended contaminants originating farther upstream.

Site soil contamination is likely attributable to on-site ship building and repair activities, including sandblasting and metal cutting activities.

Hazardous Substances/Waste Types:

Metals, PAHs, PCBs, TBT, DDTs, Dieldrin, Chlordane, Dibenzofuran, Phenol, bis(2-Ethylhexyl)phthalate, Cyanide.

Pathways:

Metals, PAHs, DDT, TBT, PCBs, Dieldrin, and Phenol in Columbia River sediments represent a potential ecological threat to Threatened & Endangered salmonids and other aquatic species in the Columbia River, and to wildlife in wetlands areas along the river.

Upland soil contaminants represent a potential human health threat to on-site workers through potential direct contact, incidental ingestion, or dust inhalation. Site soil contaminants also represent a potential ecological threats to on-site plants and wildlife, to nearby wetlands habitat, as well as to aquatic life in nearby surface water bodies, through stormwater runoff.

Metals in site soil contaminants are leachable and represent a potential threat to shallow groundwater, including an on-site drinking water, as well as off-site domestic wells and nearby off-site Community Drinking Water Supply wells.

If deposited on upland portions of the site, contaminants in dredged river and lagoon sediments could also represent potential threats to on-site workers, plants, wildlife, on-site wetlands, shallow groundwater, users of the on-site Public Water Supply well, other nearby domestic wells and Community Water Supply wells, and a stormwater runoff threat to aquatic life in the lagoon and river.

Environmental/Health
Threats:

Site stormwater has contained concentrations of Al, As, Ba, Cd, Cr, Cu, Pb, Hg, Ni, and Zn that exceed freshwater federal-recommended acute toxicity levels, state stormwater screening criteria, or state ecological risk assessment screening criteria for freshwater aquatic life.

River and Lagoon sediments have contained concentrations of As, Cd, Cu, Pb, Zn, DDD, DDE, DDT, TBT, PCB 1254, PCB 1260, a variety of low and high density PAHs, and phenol that exceed both presumed background concentrations and state ecological risk assessment screening values or bioaccumulation screening values for freshwater aquatic life. Some of the metals (Cu, Pb, Zn) are sufficiently leachable to represent a potential acute toxicity threat to freshwater fish. Copper is sufficiently leachable to exceed the drinking water MCL and represent a potential human health drinking water threat.

Site Soils have contained concentrations of total As, Ba, Cd, Cr, Pb, Hg, Se, and Se that exceed both presumed background concentrations as well as DEQ Ecological Risk Assessment screening values and stormwater catchbasin screening values. As, Cr, and Pb were present at concentrations that could represent a potential threat to on-site workers, potential construction workers, and/or potential excavation workers. As, Hg, and Pb were present at concentrations that could represent a potential leaching threat to groundwater used for occupational and residential drinking water. As, Ba, Cd, Cr, Cu, Pb, Hg, and Zn were sufficiently leachable to exceed DEQ stormwater screening values and/or represent a potential DEQ Ecological Risk Assessment threat to freshwater aquatic life. Cd, Cr, Cu, Pb, Hg, and Zn were sufficiently leachable to exceed federal freshwater acute toxicity standards. As, Ba, Cd, Cr, Pb, and Hg were sufficiently leachable to exceed drinking water MCLs.

If disposed on upland areas, contaminated sediments contained arsenic at sufficiently high concentrations to represent a potential contact/ingestion/inhalation threat to on-site workers. As and Pb were present at sufficient concentrations to represent a potential leaching threat to groundwater used as occupational and residential drinking water.

Cr, Cu, Pb, and Zn were present at sufficiently high concentrations to represent a potential ecological threat to plants, birds, and invertebrates. DDT was present at sufficiently high concentrations to represent a potential ecological threat to birds.

Site drinking water (a PWS well) has contained concentrations of sodium that exceed the drinking water alert level, and concentrations of arsenic approaching the drinking water MCL.

Off-site groundwater may be used as domestic drinking water but several Community and Public Drinking Water Supply wells are located within 1.5-mile of the site (Portland Water Bureau, Interlachen Water PUD, City of Fairview, City of Wood Village, Townsend Farms, City of Troutdale).

Status of Investigative
or Remedial Action:

198 tons of metals-contaminated soil within the site's 8,600-square-foot Prefab Construction Platform area, was excavated and sent to Hillsboro Landfill for disposal in July-October 2000.

A small portion of this soil appears to have qualified as Hazardous Waste, based on TCLP-leachable lead concentration (6.75 ppm TCLP-leachable lead in soil samples S7-1.0).

DEQ has reviewed no information that would indicate that the full vertical or horizontal extent of soil contamination was ever defined, or that soil cleanup confirmation samples were ever collected and analyzed.

(11/01/11 EKM) The site has signed an intent-to-participate in DEQ's voluntary cleanup program. DEQ anticipates a report in November 2011 documenting a preliminary site assessment of environmental contamination at the site.

(7-2-2020, B Schwarz) In October 2019, Sundial Marine completed an interim removal action measure, which included excavation and offsite disposal of 3,606 tons of sandblast grit, soil, rock and debris from four areas of their property. The excavated areas were backfilled with clean imported soil or rock. The contaminated material was taken to Hillsboro Landfill. DEQ determined that this removal reduced contaminant concentrations to levels that are safe for humans, plants and animals.

DEQ has determined that this removal action has reduced contaminant concentrations to acceptable levels, and plans to issue a No Further Action determination. A public notice of this proposed decision was issued on July 1, 2020. Comments are requested by July 31, 2020.

Data Sources:

- 1) Response to Site Assessment Review Notice, Sundial Marine Construction & Repair, Inc., prepared by Tidewater Holdings, Inc., October 7, 2010.
- 2) Sediment Characterization Report, Maintenance Dredging and Habitat Improvement Project, Sundial Marine Construction and Repair, prepared by Fishman Environmental Services, LLC, February 20, 2004.
- 3) Report of Findings, Sediment Sampling for Proposed Dry Dock Dredging, Sundial Marine Repair Facility [letter report], prepared by PBS Environmental, July 2, 2001.
- 4) Soil Assessment and Cleanup Activities for Sand Blasting Material and Metals Cutting at the Construction Platform, Sundial Facility, prepared for Sundial Marine Construction & Repair, by TCM Northwest, Inc., December 14, 2000.
- 5) Report of Findings, Sediment Sampling for Proposed Dry Dock Dredging, Sundial Marine Repair Yard [letter report], prepared by PBS Environmental, December 13, 2000.
- 6) Bottom Sediment Sampling and Testing [letter report], prepared for Sundial Tug & Barge Works, Inc., by Lambier Professional Group, August 24, 1995.
- 7) DEQ Hazardous Waste Generator files for Sundial Marine Construction and Repair, Inc.
- 8) DEQ UST Database
- 9) DEQ Pollution Complaints Database
- 10) DEQ Spill Files
- 11) Oregon Health Division Drinking Water Section database for Oregon Public Water Supplies.

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
ACENAPHTHENE	Sediment	34 ppb Acenaphthene in river sediments at 0-6 ft bgs at sampling point S-2 (7/1/95). 32 ppb in sediments at 0-8 ft bgs at S-2 (7/1/95). 14 ppb at 0-5 ft bgs at S-1 (7/1/95).	7/1/1995 1:48:46 PM
ALUMINUM	Other	353 ppb aluminum in stormwater runoff (6/4/10). 184 ppb on 4/6/10.	6/4/2010 9:16:24 AM

AMMONIA NITROGEN	Sediment	83 ppm ammonia (as N) in river sediments at 0-6 ft bgs at sampling point A (1/14/04). 59 ppm in river sediments at 0-8 ft bgs at sampling point C (1/14/04).	1/14/2004 8:40:54 AM
ANTHRACENE	Sediment	333 ppb anthracene in Columbia River sediments at 0-5 ft bgs at sampling point S-2 (7/1/95). 110 ppb at 0-8 ft bgs at S-3 (7/1/95). 68 ppb at 0-5 ft bgs at S-1 (7/1/95).	7/1/1995 4:11:57 PM
ARSENIC	Leachate	20.1 ppb leachable arsenic in soil at 1.0 ft bgs at sampling point S1 (7/17/00). 4.7 ppb from lagoon sediments at 0-8 ft bgs at sampling point S-4 (7/1/95). 3.4 ppb from Columbia River sediments at 0-8 ft bgs at S-3 (7/1/95). 2.2 ppb at S-1 (7/95).	7/17/2000
ARSENIC	Other	100 ppb arsenic in stormwater runoff (6/7/94). 40 ppb in stormwater runoff (10/26/94).	6/7/1994 8:47:43 AM
ARSENIC	Sediment	4.7 ppm arsenic in Columbia River sediments at 0-8 ft bgs at sampling point S-3 (7/1/95). 3.68 ppm in river sediments at 0-9 ft bgs at sampling point Dredge 1-9 (11/30/00).	7/1/1995
ARSENIC	Soil	25.3 ppm arsenic in sandblast grit contaminated surface soil at sampling point S6 (7/21/00). 20.2 ppm in surface soil at S3 (7/19/00). 17.5 ppm at S5 (7/20/00). 5.14 ppm at S5 at 2-ft bgs (7/20/00). 5.06 ppm at S1 at 1.0 ft bgs (7/17/00).	7/21/2000 3:33:24 PM
BARIUM	Leachate	4,380 ppb leachable barium from sandblast grit contaminated soils at sampling point S5 (7/20/00). 2,710 ppb leachable barium at S6 (7/21/00). 2,130 ppb leachable barium in surface soils at S3 (7/19/00).	7/20/2000
BARIUM	Other	20.5 ppb barium in stormwater runoff (6/4/10). 20 ppb on 4/6/10.	6/4/2010 9:17:46 AM
BARIUM	Soil	617 ppm barium in sanblast grit contaminated surface soils at sampling point S5 (7/20/00). 427 ppm at S6 (7/21/00).	7/20/2000 3:06:22 PM
BENZO(a)ANTHRACENE	Sediment	292 ppb benzo(a)anthracene in Columbia River sediments at 0-6 ft bgs at sampling point S-2 (7/1/95). 256 ppb at 0-8 ft bgs at S-3 (7/1/95). 151 ppb at 0-5 ft bgs at S-1 (7/1/95).	7/1/1995 4:14:05 PM

BENZO(a)PYRENE	Sediment	251 ppb benzo(a)pyrene in Columbia River sediments at 0-6 ft bgs at sampling point S-2 (7/1/95). 198 ppb at 0-8 ft bgs at S-3 (7/1/95). 116 ppb at 0-5 ft bgs at S-1 (7/1/95).	7/1/1995 4:16:08 PM
BENZO(k)FLUORANTHENE	Sediment	202 ppb benzo(k)fluoranthene in Columbia River sediments at 0-6 ft bgs at sampling point S-2 (7/1/95). 174 ppb at 0-8 ft bgs at S-3 (7/1/95). 106 ppb at 0-5 ft bgs at S-1 (7/1/95).	7/1/1995 4:18:32 PM
BIS(2-ETHYLHEXYL)PHTHALATE	Sediment	140 ppb bis(2-Ethylhexyl)phthalate in river sediments at 0-8 ft bgs at sampling point C (1/14/04).	1/14/2004 8:38:56 AM
CADMIUM	Leachate	17 ppb leachable cadmium in soils at 1.0-ft bgs at sampling point S7 (7/24/00). 0.74 ppb leachable from Columbia River sediments at 0-8 ft bgs at sampling point S-3 (7/1/95). 0.53 ppb from lagoon sediments at 0-8 ft bgs at S-4 (7/1/95).	7/24/2000
CADMIUM	Other	19 ppb cadmium in stormwater runoff (10/26/94). 2 ppb in stormwater runoff (6/7/94).	10/26/1994 8:49:11 AM
CADMIUM	Sediment	3.4 ppm cadmium in Columbia River sediments at 0-8 ft bgs at sampling point S-3 (7/1/95). 1.74 ppm in river sediments at 0-9 ft bgs at sampling point Dredge 1-9 (11/30/00). 1.21 ppm in river sediments at 0-5 ft bgs at S-1 (7/1/95).	7/1/1995
CADMIUM	Soil	23.1 ppm cadmium in sandblast grit contaminated surface soil at sampling point S5 (7/20/00). 16.9 ppm in surface soils at S6 (7/21/00). 3.83 ppm in surface soils at S3 (7/19/00).	7/20/2000 3:12:25 PM
CHLORDANE,CIS-	Sediment	0.21 ppb alpha-Chlordane in river sediments at sampling points A (0-6 ft bgs) and C (0-8 ft bgs) on 1/14/04.	1/14/2004 8:30:56 AM
CHROMIUM	Leachate	621 ppb leachable chromium in soil at 1.0 ft bgs at sampling point S7 (7/24/00). 58 ppb leachable chromium in surface soil at S5 (7/20/00). 35 ppb leachable chromium in surface soil at S3 (7/19/00). 25 ppb at S6 (7/21/00).	7/24/2000 3:18:55 PM
CHROMIUM	Other	82 ppb chromium in stormwater runoff (10/26/94). 60 ppb in stormwater runoff (6/7/94).	10/26/1994 8:50:41 AM

CHROMIUM	Sediment	27.4 ppm chromium in Columbia River sediments at 0-8 ft bgs at sampling point S-3 (7/1/95). 14.1 ppm in river sediments at 0-9 ft bgs at sampling point Dredge 1-90 (11/30/00).	7/1/1995
CHROMIUM	Soil	335 ppm chromium in sandblast grit contaminated surface soil at sampling point S5 (7/20/00). 289 ppm in surface soil at S6 (7/21/00). 274 ppm in surface soil at S3 (7/19/00).	7/20/2000 3:18:55 PM
CHRYSENE	Sediment	276 ppb chrysene in Columbia River sediments at 0-6 ft bgs at sampling point S-2 (7/1/95). 273 ppb at 0-8 ft bgs at S-3 (7/1/95). 165 ppb at 0-5 ft bgs at S-1 (7/1/95).	7/1/1995 4:20:28 PM
COPPER	Leachate	154 ppb leachable copper from Columbia River sediments at 0-8 ft bgs at sampling point S-3 (7/1/95). 32.3 ppb from lagoon sediments at 0-8 ft bgs at S-4 (7/1/95). 12.5 ppb from river sediments at 0-5 ft bgs at S-1 (7/1/95).	7/1/1995 7:43:21 AM
COPPER	Other	2,700 ppb copper in stormwater runoff (6/23/03). 2,600 ppb on 2/25/04. 1,900 ppb on 10/26/94. 1,000 ppb on 6/7/94 and 4/1/05. 726 ppb on 10/26/09 and 6/4/10. 440 ppb on 5/10/05. 373 ppb on 6/19/09. 341 ppb on 3/9/07. 255 ppb on 12/20/07.	6/23/2003 8:52:11 AM
COPPER	Sediment	356 ppm copper in Columbia River sediments at 0-8 ft bgs at sampling point S-3 (7/1/95). 202 ppm at 0-5 ft bgs at S-1 (7/1/95). 105 ppm at 0-6 ft bgs at S-2 (7/1/95). 76 ppm at 0-9 ft bgs at SED2 (1/29/01). 59.5 ppm at 0-9 ft at Dredge 1-9 (11/30/00)	7/1/1995
CYANIDE (AS ION)	Other	5.1 ppb cyanide in stormwater runoff (6/4/10).	6/4/2010 9:14:29 AM
DDD,p,p'-	Sediment	5 ppb DDD in River sediments at 0-6 ft bgs at sampling pt. S-2 (7/1/95). 4 ppb in riv. sed. at 0-5 ft bgs at S-1 (7/1/95) 3.2 ppb in river sediments at 08- ft bgs at sampling point C (1/14/04). 3 ppb in lagoon sediments at 0-8 ft bgs at S-4 (7/1/95).	

DDE,p,p'-	Sediment	5 ppb DDE in River sediments at 0-5 ft bgs at sampling pt. S-1 (7/1/95). 3.9 ppb at 0-9 ft at SED2 (1/29/01). 3.3 ppb at 0-10 ft at SED3 (1/29/01). 3 ppb in lagoon sed. at 0-8 ft bgs at S-4 (7/1/95). 2.1 ppb in riv. sed. at sampling pt. A (1/14/04).	7/1/2000
DDT,p,p'-	Sediment	16 ppb DDT in Columbia River sediments at 0-6 ft bgs at sampling point S-2 (7/1/95).	7/1/1995 4:04:26 PM
DIBENZO(a,h)ANTHRACENE	Sediment	36 ppb Dibenzo(a,h)anthracene in Columbia River sediments at 0-6 ft bgs at sampling point S-2 (7/1/95). 34 ppb at 0-8 ft bgs at S-3 (7/1/95).	7/1/1995 4:22:44 PM
DIBENZOFURAN	Sediment	60 ppb Dibenzofuran in river sediments at 0-8 ft bgs at sampling point S-3 (7/1/95). 48 ppb in sediments at 0-6 ft bgs at S-2 (7/1/95). 28 ppb in sediments at 0-5 ft bgs at S-1 (7/1/95).	7/1/1995 1:56:07 PM
DIELDRIN	Sediment	0.19 ppb Dieldrin in river sediments at 0-6 ft bgs at sampling point A (1/14/04).	1/14/2004 8:36:54 AM
FLUORANTHENE	Sediment	670 ppb fluoranthene in Columbia River sediments at 0-6 ft bgs at sampling point S-2 (7/1/95). 579 ppb at 0-8 ft bgs at S-3 (7/1/95). 366 ppb at 0-5 ft bgs at S-1 (7/1/95).	7/1/1995 4:24:33 PM
FLUORENE	Sediment	72 ppb Fluorene in river sediments at 0-6 ft bgs at sampling point S-2 (7/1/95). 62 ppb in sediments at 0-8 ft bgs at S-3 (7/1/95). 26 ppb at 0-5 ft bgs at S-1 (7/1/95).	7/1/1995 1:52:05 PM
INDENO(1,2,3-cd)PYRENE	Sediment	153 ppb Indeno(1,2,3-cd)pyrene in Columbia River sediments at 0-6 ft bgs at sampling point S-2 (7/1/95). 112 ppb at 0-8 ft bgs at S-2 (7/1/95). 66 ppb at 0-5 ft bgs at S-1 (7/1/95).	7/1/1995 4:26:39 PM
LEAD	Leachate	6,750 ppb leachable lead in grit contaminated soil at 1.0 ft bgs at S7 (7/24/00). 663 ppb at S4 at 1.0 ft bgs (7/19/00). 637 ppb at S2 at 1.0 ft bgs (7/18/00). 603 ppb in surface soil at S5 (7/20/00). 17.7 ppb from river sediment at S-3 (7/1/95).	7/24/2000
LEAD	Other	450 ppb lead in stormwater runoff on 10/26/94. 160 ppb on 6/7/94. 40.8 ppb on 6/4/10 and 10/26/09. 35 ppb on 4/1/05. 24 ppb on 5/22/06. 19 ppb on 2/25/04. 18 ppb on 5/10/05. 17 ppb on 6/23/03.	10/26/1994 8:57:47 AM

LEAD	Sediment	517 ppm lead in Columbia River sediments at 0-8 ft bgs at sampling point S-3 (7/1/95). 162 ppm at 0-9 ft at Dredge 1-9 (11/30/00). 113 ppm at 0-5 ft bgs at S-1 (7/1/95). 39.5 ppm at 0-6 ft bgs at S-2 (7/1/95).	7/1/1995
LEAD	Soil	1,930 ppm lead in sandblast grit contaminated soil at 1.0 ft bgs at sampling point S7 (7/24/00). 1,750 ppm in surface soil at S5 (7/20/00). 1,420 ppm at S6 (7/21/00). 208 ppm at S2 at 1 ft bgs (7/18/00). 202 ppm at S3 at 1 ft bgs (7/19/00).	7/24/2000 3:24:28 PM
MERCURY	Leachate	17.5 ppb leachable mercury in soil at 1.0 ft bgs at S7 (7/24/00).	7/24/2000 3:40:56 PM
MERCURY	Other	0.9 ppb mercury in stormwater runoff (10/26/94).	10/26/1994 9:02:10 AM
MERCURY	Soil	0.122 ppm mercury in sandblast grit contaminated surface soil at sampling point S6 (7/21/00).	7/21/2000 3:40:56 PM
NAPHTHALENE	Sediment	20 ppb Naphthalene in river sediments at 0-8 ft bgs at sampling point S-3 (7/1/95). 8 ppb in sediments at 0-5 ft bgs at S-1 (7/1/95).	7/1/1995 1:54:26 PM
NICKEL	Leachate	8.7 ppb leachable nickel in lagoon sediments at 0-8 ft bgs at S-4 (7/1/95). 4.1 ppb in river sediments at 0-8 ft bgs at S-3 (7/1/95).	7/1/1995
NICKEL	Other	70 ppb nickel in stormwater runoff (10/26/94). 40 ppb on 6/7/94.	10/16/1994 9:03:20 AM
NICKEL	Sediment	15.2 ppm nickel in Columbia River sediments at 0-8 ft bgs at sampling point S-3 (7/1/95). 12.6 ppm at 0-10 ft bgs at SED3 (1/29/01). 10 ppm at 0-9 ft at SED2 (1/29/01).	7/1/1995
OIL - WASTE	Other	140 ppm Oil & Grease in drydock stormwater runoff (5/22/06). 12 ppm O&G in drydock stormwater runoff (6/23/03).	5/22/2006 8:44:59 AM
PCB 1254	Sediment	160 ppb PCB 1254 in Columbia River sediments at 0-8 ft bgs at sampling point S-3 (7/1/95).	7/1/1995 4:08:53 PM
PCB 1260	Sediment	40 ppb PCB 1260 in Columbia River sediments at 0-8 ft bgs at sampling point S-3 (7/1/95).	7/1/1995 4:10:28 PM

PHENANTHRENE	Sediment	522 ppb phenanthrene in Columbia River sediments at 0-6 ft bgs at sampling point S-2 (7/1/95). 390 ppb at 0-8 ft bgs at S-3 (7/1/95). 224 ppb at 0-5 ft bgs at S-1 (7/1/95).	7/1/1995 4:28:56 PM
PHENOL	Sediment	254 ppb Phenol in Columbia River sediments at 0-8 ft bgs at sampling point S-3 (7/1/95).	7/1/1995 4:32:57 PM
PYRENE	Sediment	595 ppb Pyrene in Columbia River sediments at 0-6 ft bgs at sampling point S-2 (7/1/95). 479 ppb at 0-8 ft bgs at S-3 (7/1/95). 297 ppb at 0-5 ft bgs at S-1 (7/1/95).	7/1/1995 4:30:55 PM
SELENIUM	Soil	1.56 ppm selenium in sandblast grit contaminated surface soil at sampling point S3 (7/19/00). 1.36 ppm at S6 (7/21/00). 1.31 ppm at S5 (7/20/00).	7/19/2000 3:38:24 PM
SILVER	Sediment	0.05 ppm silver in river sediments at 0-6 ft bgs at sampling point A (1/14/04). 0.04 ppm in river sediments at 0-8 ft bgs at sampling point C (1/14/04).	1/14/2004
SILVER	Soil	4.33 ppm silver in sandblast grit contaminated surface soil at sampling point S5 (7/20/00). 3.15 ppm in surface soil at S6 (7/21/00).	7/20/2000 3:31:28 PM
TRIBUTYLTIN	Other	0.22 ppb TBT in Columbia River sediment interstitial water at 9-10 ft bgs at SED2 (2/21/01). 0.047 ppm in river interstitial water at 0-10 ft bgs at SED3 (2/21/01).	2/21/2001 8:02:20 AM
TRIBUTYLTIN	Sediment	430 ppb TBT in Columbia River sediments at 0-5 ft bgs at sampling point S-1 (7/1/95). 310 ppb at 0-8 ft bgs at S-3 (7/1/95). 33 ppb at 0-6 ft bgs at S-2 (7/1/95). 8 ppb in lagoon sediments at 0-8 ft bgs at S-4 (7/1/95).	7/1/1995 4:06:12 PM
ZINC	Leachate	177 ppb leachable zinc in river sediments at 0-8 ft bgs at S-3 97/1/95). 83.1 ppb in river sediments at 0-5 ft bgs at S-1 (7/1/95). 40.5 ppb in lagoon sediments at 0-8 ft bgs at S-4 (7/1/95).	7/1/1995 7:50:13 AM
ZINC	Other	3,100 ppb zinc in stormwater runoff (10/26/04). 2,100 ppb on 6/23/03. 1,500 ppb on 6/7/94. 1,440 ppb on 12/20/07. 1,100 ppb on 2/25/04. 1,000 ppb on 5/10/05. 930 ppb on 4/1/05. 463 ppb on 6/4/10 and 10/26/09. 440 ppb on 5/22/06. 386 ppb on 3/08.	10/26/1994 9:04:53 AM

ZINC	Sediment	3,890 ppm zinc in Columbia River sediments at 0-8 ft bgs at sampling point S-3 (7/1/95). 939 ppm at 0-5 ft bgs at S-1 (7/1/95). 335 ppm at 0-6 ft bgs at S-2 (7/1/95). 115 ppm at 0-9 ft at Dredge 1-9 (11/30/00).	7/1/1995
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Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
NO FURTHER STATE ACTION REQUIRED (Primary Action)	04/06/2020	08/26/2020	<u>Heidi Nelson</u> (mailto:Heidi.NELSON@deq.oregon.gov)	
View Full Report Showing Action History (ecsidetailfull.asp?seqnbr=5390#actions)				

Key to Certain Acronyms and Terms in this Report:

- **CERCLIS No.:** The U.S. EPA's Hazardous Waste Site identification number, shown only if EPA has been involved at the site.
- **Region:** DEQ divides the state into three regions, Eastern, Northwest, and Western; the regional office shown is responsible for site investigation/cleanup.
- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting Heidi Nelson at the Northwest regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>) or via email at heidi.nelson@deq.oregon.gov (mailto:Heidi.NELSON@deq.oregon.gov). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (mailto:ximena.cruzcuevas@deq.state.or.us) or contact the Northwest regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 5665, UPRR Dune Coverage

General Site Information

Site ID: 5665	Site Name: UPRR Dune Coverage	CERCLIS No:
Address:	RR Tracks The Dalles	
	County: Wasco	Region: Eastern
Other location information:		
Investigation Status:	Suspect site requiring further investigation	
	Brownfield Site: No	NPL Site: No
		Orphan Site: No
		Study Area: No
Property:	Twنشp/Range/Sect: 2N , 13E , 8	Tax Lots:
	Latitude: 45.6657 deg.	Longitude: -121.2214 deg.
		Site Size:
Other Site Names:		
	Union Pacific Railroad	

Site Characteristics

General Site Description:

Site History:

Contamination Information: (10/31/11 DMC/SAS) Site is allegedly a material put down by UPRR in 1948 to control the sand dunes.

Manner and Time of Release:

Hazardous Substances/Waste Types:

Pathways:

Environmental/Health Threats:

Status of Investigative or Remedial Action: (10/31/11 DMC/SAS) Site screening recommended.

Data Sources: 1. Dave Nelson

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Site Screening recommended (EV) (Primary Action)	10/31/2011	10/31/2011	Daniel Crouse	SAS

[View Full Report Showing Action History \(ecsdetailfull.asp?seqnbr=5665#actions\)](http://ecsdetailfull.asp?seqnbr=5665#actions)

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For more information on this site contact the [Eastern regional office](https://www.oregon.gov/DEQ/Pages/Offices.aspx) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 5711, Hayden's Corner

General Site Information

Site ID: 5711

Site Name: Hayden's Corner

CERCLIS No:

Address:

1321-1337 N Hayden Island Dr. Portland 97217

County: Multnomah

Region: Northwest

Other location information:

Investigation Status:

No further action required

Brownfield Site: Yes

NPL Site: No

Orphan Sites:
No

Study Area:
No

Property:

Twtnshp/Range/Sect: 2N , 1E , 33

Tax Lots: 300

Latitude:
45.6135 deg.

Longitude:
-122.6794 deg

Site Size: 0.62 acre

Other Site Names:

Hayden Island Landfill

Arco Service Station #4475

Site Characteristics

General Site Description:

Flat-lying, paved site with parking to the north and commercial buildings on the south.

Site History:	An ARCO service station that operated on the property starting in 1971 initiated an investigation in 1989 that showed gasoline contamination in groundwater. Borings also revealed a layer of landfill debris beneath clean fill. The property is apparently located within the footprint of the former Hayden Island Landfill, an unregulated landfill that was located in a seasonal lake basin and probably operated between 1950 and 1970, when it was covered by a 7 to 8-foot layer of clean fill. DEQ's LUST program (file #26-89-0149) requested a Corrective Action Plan from ARCO, leading to pump-and-treat remediation that began operating 8/90. Groundwater samples from eight monitoring wells contained dissolved metals, which are most likely a result of landfill leachate percolating through unknown solid wastes in the unsaturated zone. Because of system fouling from these metals, the treatment program was shut down in May 1991. The ARCO station recieved a No Further Action determination in 1998 with the exception that the determination did not apply to other contaminants found at the site related to the greater Hayden Island Landfill.
Contamination Information:	Suspected methane related to the underlying Hayden Island Landfill. Possible petroleum and VOCs related to the former use of the site as an ARCO service station.
Manner and Time of Release:	
Hazardous Substances/Waste Types:	Methane and potentially hazardous volatile organic compounds (VOC)
Pathways:	Potential intrusion into site buildings of methane and/or VOCs related to the underlying landfill and former use of the site as a gasoline station.
Environmental/Health Threats:	

Status of Investigative or Remedial Action: Methane and other atmospheric gases were measured in confined spaces inside the site buildings using a handheld meter in May 2011. Methane at levels from 1.5 to 5.5% was detected at the drains of two restrooms. This could be related to sewer gas from leaking drain traps. Little or no methane was detected in any other confined space locations within the buildings.

In May 2012 three borings were arrayed around the property and one included the location of a former leaking waste oil tank from the prior gas station. Borings were sampled for methane using a handheld meter as well as summa canister sampling. VOCs samples were also collected using a summa. The maximum methane detection was around 2% in one hole (near the former waste oil tank) and near zero in other holes. Various VOCs (largely associated with petroleum) were found at generally low concentrations. No VOCs were found at concentrations greater than commercial risk-based concentrations.

In July 2012 a plumber was hired by site owner to inspect and correct any problems with the bathroom drains/traps.

No Further Action determination in August 2012. The determination applies only to the immediate Hayden's Corner site and not to the greater Hayden Island Landfill (ECSI #1559).

Data Sources: Methane Testing - Hayden's Corner, PBS Engineering and Environmental, June 2011.

Phase II Sampling and Analysis Report, 1321-1337 N. Hayden Island Drive, prepared for Hayden's Corner LLC by Environmental Inspection Services, June 2012.

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
BENZENE	Air	12 ug/m3 (soil gas)	6/1/2012
CHLOROFORM	Air	32 ug/m3 (soil gas)	6/1/2012
METHANE	Air	2.1% (soil gas)	6/1/2012
TOLUENE	Air	130 ug/m3 (soil gas)	6/1/2012

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
NO FURTHER STATE ACTION REQUIRED (Primary Action)	08/02/2012	08/02/2012	Robert Williams	ICP

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- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
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For more information on this site contact the [Northwest regional office](#) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 5734, Gas Station (Former)

Site Photos

Click to View Photo	Picture Date	Caption	Size
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7399&siteID=5734)	07/17/2012	site view	2076 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7400&siteID=5734)	07/17/2012	site view	1990 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7401&siteID=5734)	07/17/2012	view of pump island and UST location	1709 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7405&siteID=5734)	09/12/2012	waste oil UST found in hillside during hoist removal	35 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7404&siteID=5734)	09/18/2012	gasoline UST	38 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7402&siteID=5734)	09/18/2012	hoist removal	37 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7403&siteID=5734)	09/19/2012	site view post UST removal but pre-ODOT patch	38 Kb

General Site Information

Site ID: 5734	Site Name: Gas Station (Former)	CERCLIS No:
Address:	Bounded by Oregon St., 2nd Ave., and Old US Hwy. 30 Mosier 97040	
	County: Wasco	Region: Eastern

Other location
information:

Investigation Status: No further action required

Brownfield Site: Yes

NPL Site: No

Orphan Site:
No

Study Area:
No

Property:

Twtnshp/Range/Sect: 2N , 11E , 1

Tax Lots: 2800

Latitude:
45.6838 deg.

Longitude:
-121.3968 deg.

Site Size: 0.06 acre

Other Site Names:

Site Characteristics

General Site
Description:

Site History:

Contamination
Information:

Manner and Time of
Release:

Hazardous
Substances/Waste
Types:

Pathways:

Environmental/Health
Threats:

Status of Investigative or
Remedial Action:

(7/9/12 KJR/SAS) The site was a gasoline service station from the late 1920s to the 1967. The station building was removed in 1972. The site is currently a roadside rest stop with a drinking fountain a historical sign and a small shelter. A geophysical survey recently identified two USTs type objects under the pump island remnant. A third UST may also be present. A Site Specific Assessment is underway at the property.

(12/4/12 KJR/SAS) A service station was previously located on the property. The station operated from at least the 1920s to 1967. The station building was removed in 1972.

Three underground storage tanks (USTs), a pump island, a hydraulic hoist, and associated piping were decommissioned by removal on September 18 and 19, 2012. The tanks ranged in size from 550-gallon to 680-gallon and likely stored gasoline, diesel, and waste oil. The presumed waste oil and diesel tanks were in relatively good condition with no obvious holes or signs of leaks. The gasoline tank was in moderate condition with several very small holes on the bottom of the tank. Groundwater was not encountered in the excavation.

Two soil samples were collected from the bottom of each UST excavation and three soil samples were collected from beneath the piping run and pump island. Soil samples were analyzed for gasoline, diesel, and heavy oil. Concentrations of gasoline were detected above the laboratory's reported detection limit in four soil samples at levels up to 1.0 milligrams per kilograms (mg/kg). Concentrations of diesel and/or heavy oil were detected above the laboratory's reported detection limit in seven soil samples at levels up to 54 mg/kg.

The eight soil samples were also analyzed for volatile organic compounds (VOCs) and six soil samples were analyzed for polynuclear aromatic hydrocarbons (PAHs) and lead. Concentrations of one or more VOCs were detected above the laboratory's reported detection limits at levels up to 0.055 mg/kg. Concentrations of one or more PAHs were detected above the laboratory's reported detection limits at levels up to 0.96 mg/kg. Concentrations of lead were detected above the laboratory's reported detection limits at levels up to 85 mg/kg.

The two confirmation samples collected from the waste oil UST excavation were also analyzed for RCRA 8 metals and polychlorinated biphenyls (PCBs). Concentrations of one or more metals were detected at levels up to 48 mg/kg. Concentrations of PCBs were not detected.

One soil sample was collected from the bottom of the hydraulic hoist excavation analyzed for diesel and heavy oil. Concentrations of diesel (14 mg/kg) and heavy oil (77 mg/kg) were detected.

The property is currently used as a rest stop for bicyclist and is zoned for commercial use. The property will continue to be used for public purposes. Groundwater was not encountered during the assessment.

Detected concentrations are either located at depths greater than three feet or less than occupational risk-based concentrations.

NFA issued for the site on 12/4/12.

See site document section of this database to view select site documents.

Data Sources:

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
NO FURTHER STATE ACTION REQUIRED (Primary Action)	12/04/2012	12/04/2012	<u>Kathleen Daugherty</u> (mailto:Katie.DAUGHERTY@deq.oregon.gov)	SAS

[View Full Report Showing Action History \(ecsdetailfull.asp?seqnbr=5734#actions\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx?seqnbr=5734#actions)

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You may be able to obtain more information about this site by contacting Kathleen Daugherty at the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>) or via email at katie.daugherty@deq.oregon.gov (mailto:Katie.DAUGHERTY@deq.oregon.gov). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (mailto:ximena.cruzcuevas@deq.state.or.us) or contact the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 5848, PDX Intl. Airport Bulk Fuel Tanks

<u>General Site Information</u>				
Site ID: 5848	Site Name: PDX Intl. Airport Bulk Fuel Tanks		CERCLIS No:	
Address:	Portland International Airport Portland 97218			
	County: Multnomah		Region: Northwest	
Other location information:				
Investigation Status:	Suspect site requiring further investigation			
	Brownfield Site: No	NPL Site: No	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 1N , 2E , 6		Tax Lots:	
	Latitude: 45.5972 deg.	Longitude: -122.6133 deg.	Site Size: 2 acres	
Other Site Names:				
	ECSI #1832 fuel pipeline terminus investigation			
	ECSI #5848 is the PDX fuel storage tank facility			
	Chevron Pipeline, Kinder Morgan Pipeline			
	Aircraft Services International Group			
	Portland Fuel Facility Corporation			
	Menzies Aviation			
	Portland International Airport (PDX)			
	ECSI #1832 UST and AST release investigations			
	ECSI #5848 site characterization and closeout			

Site Characteristics

General Site Description:

Site History:

Contamination
Information:

Manner and Time of
Release:

Hazardous
Substances/Waste Types:

Pathways:

Environmental/Health
Threats:

Status of Investigative or
Remedial Action:

Data Sources:

Advanced Remediation Technologies, March 31, 2014. Summary Report of ASIG's Bulk Fuel Storage Facility, ECSI No. 1832/5848; Taxiway F, ECSI No. 2240/5849; South Cargo Reload Rack, ECSI No. 5524; Taxiway T, ECSI No. 5846

Advanced Remediation Technologies, Inc. July 20, 2015. Response to Review (DEQ) Letter of Summary Report.

Advanced Remediation Technologies, Inc. April 26, 2016, Response for Additional Information, Bulk Fuel Storage Facility, Portland International Airport. ECSI #1832/5848

Burns and McDonnell, April 26, 2019, Workplan for Site Characterization Related to Final Site Closure. Bulk Fuel Storage Facility, Portland International Airport, Portland, Oregon.

Burns and McDonnell, October 31, 2019. Site Characterization Summary Report Related to Final Site Closure. Bulk Fuel Storage Facility at Portland International Airport, Portland, Oregon. ECSI #5848

ChevronTexaco Pipeline Company. January 3, 2003. Pipeline Integrity Management Plan.

Chevron Pipe Line Company. Revised August 2003. Company Emergency Response Plan and the Oregon State Appendix.

Emcon, March 19, 1998. Annual Groundwater Monitoring Report at Bulk Fuel Storage Facility, Portland International Airport, Portland, Oregon

Environmental Data Resources, Inc. (EDR). April 16, 2003. Environmental Database Site Assessment Report Number 0960825. Is EDR, Inc., Southport, CN.

Environmental Data Resources, Inc. (EDR). March 21, 2003. Environmental Database Site Assessment Report Number 946182. Is EDR, Inc., Southport, CN.

Hahn and Associates, Inc. June 12, 1992. Response to and investigation of a release of Aviation Fuel.

Hart Crowser. 1996. Preliminary Environmental Site Assessment.

IT Group. September 24, 1999. 1999 Annual Groundwater Monitoring at Bulk Fuel Storage Facility, Portland International Airport.

Oregon Department of Environmental Quality. 2002. Bulk Fuel Storage Facility (aka ASII/Chevron Tank Farm) Portland International Airport July 9. ECSI #1832 (options letter).

Oregon Department of Environmental Quality (DEQ). October 9, 2003. Environmental Cleanup Site Information (ECSI) Database, Site Summary Reports (Site IDs 1549, 1832), <http://www.deq.state.or.us/wmc/ecsi/ecsiquery.htm>.

Oregon Department of Environmental Quality. 1996. Administrative transfer of BFF project responsibility from the UST Program to the DEQ Cleanup Program upon recognition of multiple releases at the site (DEQ Memo dated February 28, 1996).

Oregon Department of Environmental Quality. March 13, 2015 Summary Report of ASIG's Bulk Fuel Storage Facility, Portland International Airport. ECSI #1832/5848.

Oregon Department of Environmental Quality. Sept. 24, 2015. Response to DEQ Review letter Summary Report dated July 20, 2015 and discussions of Data Needs for Project Closure. Bulk Fuel Storage Facility Portland International Airport ECSI #1832/5848.

Oregon Department of Environmental Quality. Oct. 2, 2015. Voluntary Cleanup Letter Agreement. West End Tank Farm Portland International Airport ECSI #5848. Signed by 10/20/2015.

Oregon Department of Environmental Quality. May 6, 2019. Approval of Workplan for Site Characterization Related to Final Site Closure Bulk Fuel Storage Facility Portland International Airport. ECSI #5848

Port of Portland, 1996. Memorandum presenting chronology of events at Bulk Fuel Storage Facility from 4/10/1989 to 1/10/1996. Memo dated July 26, 1996.

Riedel Environmental Services, Inc. December 2001. Remediation of Jet A Release. Chevron Pipe Line Company, Willbridge Terminal, Portland, Oregon.

URS Consultants. Environmental site Assessment Update, Chevron Pipe Line Company, Willbridge and Portland International Airport Ends, Portland Oregon. June 2004, 59 pp.

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
No Further Action (Conditional) (Primary Action)	03/12/2020	03/12/2020	<u>Kenneth Thiessen</u> (mailto:Kenneth.THIESSEN@deq.oregon.gov)	

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Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 5955, Northwest Aluminum - Tax Lot 200

<u>General Site Information</u>				
Site ID: 5955	Site Name: Northwest Aluminum - Tax Lot 200		CERCLIS No:	
Address:	2650, 2652 and 2625 River Rd. The Dalles 97058			
	County: Wasco		Region: Eastern	
Other location information:				
Investigation Status:	Suspect site requiring further investigation			
	Brownfield Site: No	NPL Site: No	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 2N , 13E , 33		Tax Lots: 200	
	Latitude: 45.6178 deg.	Longitude: -121.2025 deg.	Site Size: 74 acres	
Other Site Names:				
	Moraine Industries			
	Former Rodeo Grounds			

<u>Site Characteristics</u>	
General Site Description:	
Site History:	
Contamination Information:	
Manner and Time of Release:	

Hazardous
Substances/Waste
Types:

Pathways:

Environmental/Health
Threats:

Status of Investigative or
Remedial Action:

(May 4, 2015, Bob Schwarz) DEQ is working with Moraine Industries, LLC, a prospective purchaser of this site, which occupies the southern portion of land owned by Northwest Aluminum Company. This parcel overlaps or is adjacent to three other ECSI sites. These include the former Martin Marietta Superfund site (ECSI # 72), the Northwest Aluminum site (ECSI # 4793), and The Dalles Disposal Site (ECSI # 2165). Additional information is therefore available under those ECSI entries.

Public notice regarding a draft Prospective Purchaser Agreement was issued on May 1, 2015. A copy of the draft PPA and related documents are attached.

(Aug 7, 2017, B Schwarz) In accordance with the Prospective Purchaser Agreement, representatives of the prospective buyer expanded the existing surface cap to cover the entirety of

Restricted Area 1 with an engineered surface cap, and implemented site restrictions, in the form of institutional and engineering controls. This work is documented in the attached Remedial Action Construction Report dated January 27, 2017. DEQ is proposing to issue a Certification of Completion, based on review of this report. Public comments are requested by October 2, 2017.

(Sept 10, 2018, B Schwarz) Maul Foster Alongi conducted more extensive soil sampling in an area of the site referred to as RA2. Based on this additional sampling, we conclude that no restrictions on site use are needed for this area. These sampling results are contained in a Sept. 7, 2018 report, which is attached. As a result, the contaminated media management plan (CMMP) for this site was revised on Sept. 7, 2018. The modified CMMP is attached.

(May 13, 2019, B Schwarz) An amendment to the Easement and Equitable Servitudes was filed with Wasco County on May 2, 2019 to release area RA2 from restrictions. A copy of the amendment to the EES is attached.

Data Sources:

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Prospective Purchaser Agreement (Primary Action)	04/10/2015	06/24/2015	David Anderson (mailto:David.ANDERSON@deq.oregon.gov)	VCP

[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=5955#actions\)](#)

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- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting David Anderson at the [Eastern regional office \(https://www.oregon.gov/DEQ/Pages/Offices.aspx\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx) or via email at david.anderson@deq.oregon.gov (mailto:David.ANDERSON@deq.oregon.gov). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (mailto:ximena.cruzcuevas@deq.state.or.us) or contact the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 6115, Mosier UPRR Derailment

Site Photos			
Click to View Photo	Picture Date	Caption	Size
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7738&siteID=6115)	06/03/2016	View looking West immediately after derail and prior to fire.	295 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7739&siteID=6115)	06/03/2016	View looking West during fire.	208 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7742&siteID=6115)	06/03/2016	View of water suppression for tank cooling	1310 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7743&siteID=6115)	06/03/2016	View of fire; Friday night 6/3/2016	1159 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7740&siteID=6115)	06/04/2016	Rail cars following fire	3190 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7741&siteID=6115)	06/04/2016	View west of boom in place at mouth of Rock Creek	1825 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7748&siteID=6115)	06/05/2016	Cars being moved and righted.	3029 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7749&siteID=6115)	06/05/2016	Looking East. Cars on side of rail with ballast.	3983 Kb
View Photo (http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7750&siteID=6115)	06/05/2016	Mouth of Rock Creek. Protective booms in place.	3962 Kb

[View Photo](#)

(<http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7751&siteID=6115>)

06/05/2016

Looking East. Cars on side following rerail.

3045 Kb

[View Photo](#)

(<http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7752&siteID=6115>)

06/06/2016

Looking West. Trains moving through Mosier.

2613 Kb

[View Photo](#)

(<http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7753&siteID=6115>)

06/07/2016

Looking West. Rail open and train moving through.

254 Kb

[View Photo](#)

(<http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7744&siteID=6115>)

06/07/2016

View looking West after re-rail.

1096 Kb

[View Photo](#)

(<http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7745&siteID=6115>)

06/07/2016

View looking west. Transload from cars in progress.

862 Kb

[View Photo](#)

(<http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7746&siteID=6115>)

06/07/2016

View looking West. Car empty and purged.

612 Kb

[View Photo](#)

(<http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7853&siteID=6115>)

07/28/2016

Installing sparge wells to treat contaminated groundwater

168 Kb

[View Photo](#)

(<http://www.deq.state.or.us/lq/ecsi/pictureviewer/?pictureID=7852&siteID=6115>)

08/29/2016

Horizontal drilling to run air sparge line beneath the railroad tracks

4282 Kb

General Site Information

Site ID: 6115

Site Name: Mosier UPRR Derailment

CERCLIS No:

Address:

Near Rock Creek Rd. Mosier 97040

County: Wasco

Region: Eastern

Other location information:

Investigation Status:

Suspect site requiring further investigation

Brownfield Site: No

NPL Site: No

Orphan Site:
No

Study Area:
No

Property:

Twnsbp/Range/Sect: 2N , 11E , 6

Tax Lots:

Latitude:
45.6849 deg.

Longitude:
-121.4022 deg.

Site Size:

Other Site Names:

OERS 2016-1305

Site Characteristics

General Site
Description:

Site History:

Contamination
Information:

Manner and Time of
Release:

Hazardous
Substances/Waste
Types:

Pathways:

Environmental/Health
Threats:

Status of Investigative
or Remedial Action:

Investigation and cleanup work through Sept. 9, 2016 is summarized in the attached report by Union Pacific Railroad's consultant, CH2M. That report is attached. Following excavation and offsite disposal of 2,960 tons of petroleum-contaminated soil, two groundwater extraction wells were installed at the crash site and four groundwater monitoring wells were installed north of the railroad tracks. No free product was encountered. However, dissolved-phase petroleum was observed in well MW-4 and in the two extraction wells. CH2M installed a biosparge system to treat groundwater in these two areas.

The status of the investigation and cleanup is summarized in quarterly reports from UPRR's consultant. The most recent of these are attached.

(Aug 20, 2019) DEQ approved a temporary shutdown of the treatment system following more than two and a half years of operation. On March 10, 2019, the biosparge system was turned off. Groundwater was tested on May 2, 2019 and on June 6-7, 2019 to see whether contaminant concentrations would increase as a result of shutdown of this system. These results indicate that contaminant concentrations remain below levels of concern. DEQ therefore plans to notify UPRR that it may decommission the biosparge system and the groundwater monitoring wells.

(Dec. 27, 2019) DEQ oversaw removal of the site's biosparge system and groundwater monitoring wells during the week of November 18, 2019. Environmental cleanup has been completed. UPRR continues to work with the City of Mosier to complete other site restoration activities.

Data Sources:

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
No information is available			

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
CONFIRMATION SAMPLING (Primary Action)	06/08/2016		Robert Schwarz (mailto:Bob.SCHWARZ@deq.oregon.gov)	ERP

[View Full Report Showing Action History \(ecsdetailfull.asp?seqnbr=6115#actions\)](#)

Key to Certain Acronyms and Terms in this Report:

- **CERCLIS No.:** The U.S. EPA's Hazardous Waste Site identification number, shown only if EPA has been involved at the site.
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- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting Robert Schwarz at the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>) or via email at bob.schwarz@deq.oregon.gov (<mailto:Bob.SCHWARZ@deq.oregon.gov>). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (<mailto:ximena.cruzcuevas@deq.state.or.us>) or contact the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 6118, Forrest Motors (Former)

General Site Information

Site ID: 6118	Site Name: Forrest Motors (Former)	CERCLIS No:
Address:	102 W 3rd St. The Dalles 97058	
	County: Wasco	Region: Eastern
Other location information:		
Investigation Status:	No further action required	
	Brownfield Site: No	NPL Site: No
		Orphan Site: No
		Study Area: No
Property:	Twنشp/Range/Sect: 1N , 13E , 3	Tax Lots: 800,900
	Latitude: 45.6016 deg.	Longitude: -121.1849 deg.
		Site Size: 0.24 acres
Other Site Names:		
	Farmers Insurance	

Site Characteristics

General Site Description:

Site History: (08/22/2016;tje)The site was constructed as a service station in approximately 1926; in approximately 1971 the property was converted to a dry cleaning business that operated less than 5 years; Forrest Motor, an auto repair shop and used car dealership then operated at the site until the mid 1980s. The site is currently occupied by an insurance agency.

Contamination Information:

Manner and Time of Release:

Hazardous

Substances/Waste Types:

Pathways:

Environmental/Health
Threats:

Status of Investigative or Remedial Action: Two underground storage tanks were permanently decommissioned by removal, the other by filling in place with inert material. No contamination above acceptable risk levels was left in place.

Data Sources:

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
NO FURTHER STATE ACTION REQUIRED (Primary Action)	08/23/2016	08/23/2018	Tracy England (mailto:Tracy.ENGLAND@deq.oregon.gov)	ICP

[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=6118#actions\)](#)

Key to Certain Acronyms and Terms in this Report:

- **CERCLIS No.:** The U.S. EPA's Hazardous Waste Site identification number, shown only if EPA has been involved at the site.
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- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.

- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting Tracy England at the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>) or via email at tracy.england@deq.oregon.gov (<mailto:Tracy.ENGLAND@deq.oregon.gov>). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (<mailto:ximena.cruzcuevas@deq.state.or.us>) or contact the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 6128, Hayden Island - Umatilla Property

General Site Information

Site ID: 6128	Site Name: Hayden Island - Umatilla Property	CERCLIS No:
Address:	1445 and 1463 N Hayden Island Dr. Portland 97217	
	County: Multnomah	Region: Northwest
Other location information:		
Investigation Status:	No further action required	
	Brownfield Site: No	NPL Site: No
	Orphan Site: No	Study Area: No
Property:	Twnshp/Range/Sect: 2N , 1E , 34	Tax Lots: 200,100
	Latitude: 45.6143 deg.	Longitude: -122.6822 deg.
	Site Size: 1.53 acres	
Other Site Names:	US Bank	

Site Characteristics

General Site Description:	The site is just north of the center of Hayden Island in the Columbia River. The topography is flat and the elevation is approximately 20 feet above of sea level. The main channel of the Columbia River is just over 500 feet north of the site. Subsurface material encountered below asphalt and base gravel was medium-grained sand. At depths as little as 5 feet below ground surface (bgs) fill material consisting of paper, glass, wood, brick, plastic and metal, was encountered and found at depths up to 18 feet bgs.
Site History:	The properties are located on the old unregulated Hayden Island Landfill which was located in a seasonal lake basin and probably operated between 1950 and 1970, when it was covered by a 7 to 8-foot layer of clean fill prior to development.

Contamination Information:	Groundwater below the site is contaminated with petroleum, metals, minor VOCs, and PAHs. Contamination is likely from the old Hayden Island Landfill, over which the site is located.
Manner and Time of Release:	
Hazardous Substances/Waste Types:	
Pathways:	
Environmental/Health Threats:	
Status of Investigative or Remedial Action:	(November 2016 RKW) Phase II investigation including sampling of soil and shallow groundwater. Minor diesel and oil contamination was found in soil on the 1445 lot. Groundwater below the site contains widespread petroleum, metals (arsenic, barium, cadmium, lead, silver, and mercury), minor VOCs and PAHs. Follow-up investigation for methane (landfill gas) was undertaken in January 2017 using handheld Landtec instrument. Samples from two boring on each property and from interior confined spaces in the 1463 building. No significant levels of methane were detected. NFAs for both properties were dated April 4, 2017.
Data Sources:	Geosyntec, 2017. Phase II Environmental Site Assessment Report, Hayden Island, 1445 N. Hayden Island Drive, 1463 N. Hayden Island Drive, Portland, Oregon. September 23, 2016. Geosyntec, 2017. Methane Gas Assessment on Hayden Island Properties 1445 through 1463 N. Hayden Island Drive, Portland, Oregon February 6, 2017. Wohlers, 2015. Wohlers Environmental Services, Inc. Phase I Environmental SiteAssessment. 1445 N Hayden Island Drive, Portland, Oregon. October 30, 2015.

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
ARSENIC	Groundwater	98.5 ug/L	12/10/2015
DIESEL - FUEL OIL	Groundwater	664 ug/L	12/10/2015
LEAD	Groundwater	6960 ug/L	12/10/2015
MERCURY	Groundwater	41.3 ug/L	12/10/2015

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
NO FURTHER STATE ACTION REQUIRED (Primary Action)	04/04/2017	04/04/2017	Robert Williams	VCP

[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=6128#actions\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx)

Key to Certain Acronyms and Terms in this Report:

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- **Region:** DEQ divides the state into three regions, Eastern, Northwest, and Western; the regional office shown is responsible for site investigation/cleanup.
- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

For more information on this site contact the [Northwest regional office](https://www.oregon.gov/DEQ/Pages/Offices.aspx) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 6165, The Dalles Columbia River Sediments

General Site Information

Site ID: 6165	Site Name: The Dalles Columbia River Sediments	CERCLIS No:
Address:	Intersection of First & Union Streets The Dalles 97058	
	County: Wasco	Region: Eastern
Other location information:	No information is available	
Investigation Status:	Suspect site requiring further investigation	
	Brownfield Site: No	NPL Site: No
	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 1N , 13E , 3	Tax Lots:
	Latitude: 45.6044 deg.	Longitude: -121.1823 deg.
		Site Size:
Other Site Names:		

Site Characteristics

General Site Description:	No information is available
Site History:	No information is available
Contamination Information:	No information is available
Manner and Time of Release:	No information is available
Hazardous Substances/Waste Types:	No information is available
Pathways:	No information is available
Environmental/Health Threats:	No information is available

Status of Investigative or Remedial Action:

No information is available

Data Sources:

No information is available

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
Site Screening recommended (EV) (Primary Action)	12/19/2016		Tracy England (mailto:Tracy.ENGLAND@deq.oregon.gov)	SAS

[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=6165#actions\)](#)

Key to Certain Acronyms and Terms in this Report:

- **CERCLIS No.:** The U.S. EPA's Hazardous Waste Site identification number, shown only if EPA has been involved at the site.
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- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting Tracy England at the [Eastern regional office](#) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>) or via email at tracy.england@deq.oregon.gov (<mailto:Tracy.ENGLAND@deq.oregon.gov>). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (<mailto:ximena.cruzcuevas@deq.state.or.us>) or contact the [Eastern regional office](#) (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 6231, UPRR Mosier Depot Property

General Site Information

Site ID: 6231	Site Name: UPRR Mosier Depot Property	CERCLIS No:
Address:	Old US Hwy 30 Mosier 97040	
	County: Wasco	Region: Eastern
Other location information:	The UPRR property does not have a Wasco County tax parcel number. The property is an irregular shaped and is bounded on the east by Mosier Creek, the North by the Union Pacific tracks, the south by Old US Highway 30, and on the west by the point where the tracks are within 50 feet of tax parcel 5101 known as the Fruit Growers parcel	
Investigation Status:	No further action required	
	Brownfield Site: Yes	NPL Site: No
	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 2N , 11E , 1	Tax Lots:
	Latitude: 45.6839 deg.	Longitude: -121.3981 deg.
		Site Size: 4.04 acres
Other Site Names:	Totem Park	

Site Characteristics

General Site Description:

Site History:

Contamination
Information:

Manner and Time of
Release:

Hazardous
Substances/Waste
Types:

Pathways:

Environmental/Health
Threats:

Status of Investigative or Remedial Action: (1/24/18 KJR/SAS) A Phase 1 ESA was performed on this site and another property (Mosier Triangle) in December 2011. The report found "...the UPRR site has been used for sidetracks from the mainline, a railroad depot, and in the eastern portion for railroad housing. Because it is not known if fueling occurred on the sidetracks and at the depot, the former presence of railroad tracks and the use as a depot are considered historical RECs for this site.

The City of Mosier will receive this property from UPRR as part of a settlement agreement. An updated Phase 1 ESA will be completed to determine if conditions have changed since the December 2011 report and to meet due diligence standards.

(4/16/18 KJR/SAS) An updated Phase 1 ESA was completed with similar RECs.

(1/4/19 KJR/SAS) A Site Assessment was performed to assess surface and subsurface soil and groundwater if encountered. Groundwater was not encountered to the maximum depth explored of 10 feet below ground surface. Potable water in the area is provided City of Mosier from confined aquifers greater than 70 feet below ground surface and is routinely tested. Detected concentrations of contaminants of concern (COCs) were less than the most conservative residential generic risk-based concentrations (RBCs) with limited exceptions.

A NFA was issued on 1/3/19.

See site document section of this database to view select site documents.

Data Sources:

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
No information is available			

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
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NO FURTHER STATE

ACTION REQUIRED

(Primary Action)

01/03/2019

01/03/2019

Kathleen Daugherty

(mailto:Katie.DAUGHERTY@deq.oregon.gov)

SAS

[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=6231#actions\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx)

Key to Certain Acronyms and Terms in this Report:

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Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 6517, Lockheed-Martin RCRA Landfill

General Site Information

Site ID: 6517	Site Name: Lockheed-Martin RCRA Landfill	CERCLIS No:
Address:	3850 River Road The Dalles 97058	
	County: Wasco	Region: Eastern
Other location information:		
Investigation Status:	Suspect site requiring further investigation	
	Brownfield Site: No	NPL Site: No
	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 2N , 13E , 28	Tax Lots: 2N-13-28 800
	Latitude: 45.6241 deg.	Longitude: -121.2019 deg.
		Site Size: 5.59 acres
Other Site Names:		

Site Characteristics

General Site Description:

Site History:

Contamination Information:

Manner and Time of Release:

Hazardous Substances/Waste Types:

Pathways:

Environmental/Health Threats:

Status of Investigative or Remedial Action:

Data Sources:

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
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Refer to RCRA Program (Primary Action)	06/07/2022		<u>Fredrick Moore</u> (mailto:Fredrick.MOORE@deq.oregon.gov)	
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[View Full Report Showing Action History \(ecsidetailfull.asp?seqnbr=6517#actions\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx)

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- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting Fredrick Moore at the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>) or via email at fredrick.moore@deq.oregon.gov (mailto:Fredrick.MOORE@deq.oregon.gov). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (mailto:ximena.cruzcuevas@deq.state.or.us) or contact the Eastern regional office (<https://www.oregon.gov/DEQ/Pages/Offices.aspx>).

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 6524, Tonys Building

General Site Information

Site ID: 6524	Site Name: Tonys Building	CERCLIS No:
Address:	401 - 407 East 2nd Street The Dalles 97058	
	County: Wasco	Region: Eastern
Other location information:	No information is available	
Investigation Status:	Suspect site requiring further investigation	
	Brownfield Site: No	NPL Site: No
	Orphan Site: No	Study Area: No
Property:	Twنشp/Range/Sect: 1N , 13E , 3	Tax Lots: 2200, 2300
	Latitude: 45.6008 deg.	Longitude: -121.1803 deg.
		Site Size: 0.28 acres
Other Site Names:		

Site Characteristics

General Site Description:	No information is available
Site History:	No information is available
Contamination Information:	No information is available
Manner and Time of Release:	No information is available
Hazardous Substances/Waste Types:	No information is available
Pathways:	No information is available
Environmental/Health Threats:	No information is available

Status of Investigative or Remedial Action:

No information is available

Data Sources:

No information is available

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
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No information is available

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
FEASIBILITY STUDY (Primary Action)	08/30/2022		Alyssa Leidel (mailto:Alyssa.LEIDEL@deq.oregon.gov)	VCP

[View Full Report Showing Action History \(ecsdetailfull.asp?seqnbr=6524#actions\)](https://www.oregon.gov/DEQ/Pages/Offices.aspx#actionhistory)

Key to Certain Acronyms and Terms in this Report:

- **CERCLIS No.:** The U.S. EPA's Hazardous Waste Site identification number, shown only if EPA has been involved at the site.
- **Region:** DEQ divides the state into three regions, Eastern, Northwest, and Western; the regional office shown is responsible for site investigation/cleanup.
- **NPL Site:** Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
- **Orphan Site:** Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
- **Study Area:** Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
- **Pathways:** A description of human or environmental resources that site contamination could affect.
- **Lead Pgm:** This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting Alyssa Leidel at the [Eastern regional office](https://www.oregon.gov/DEQ/Pages/Offices.aspx) (https://www.oregon.gov/DEQ/Pages/Offices.aspx) or via email at alyssa.leidel@deq.oregon.gov (mailto:Alyssa.LEIDEL@deq.oregon.gov). If this does not work, you may contact Ximena Cruz Cuevas (503) 229-6811, or via email at ximena.cruzcuevas@deq.state.or.us (mailto:ximena.cruzcuevas@deq.state.or.us) or contact the [Eastern regional office](https://www.oregon.gov/DEQ/Pages/Offices.aspx) (https://www.oregon.gov/DEQ/Pages/Offices.aspx).

Attachment B-2

Washington Cleanup Site Details

Cleanup Site Details

Cleanup Site ID: 138

Cleanup Site ID: 138 **Facility/Site ID:** 240 **UST ID:** N/A [Site Page](#) [Site Documents](#) [View Map](#)
Cleanup Site Name: US ARMY COE HAMILTON IS LDFL [Glossary](#)
Alternate Names: US ARMY COE HAMILTON IS LDFL

LOCATION

Address: BONNEVILLE LOCK & DAM **City:** NORTH BONNEVILLE **Zip Code:** 98639 **County:** Skamania
Latitude: 45.64447 **Longitude:** -121.94071 **WRIA:** 29 **Legislative District:** 14 **Congressional District:** 3 **TRS:** 2N 7E 22

DETAIL

Status: No Further Action **NFA Received?** Yes **Is PSI site?** No
Statute: MTCA **NFA Date:** 2/21/1995 **Current VCP?** No **Past VCP?** No
Site Rank: 0 - NPL Site (Fed HRS Score) **NFA Reason:** Ecology Supervised/Conducted Cleanup **Brownfield?** No
Site Manager: Poindexter, Chris **Responsible Unit:** Headquarters **Active Institutional Control?** No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
US ARMY COE HAMILTON IS LDFL	Upland	No Further Action Required	HQ	Poindexter, Chris	Federal-supervised or conducted

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Halogenated Organics	R		R			
Metals Priority Pollutants	R		R			

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Hazardous Sites Listing/NPL	Completed		7/15/1993
Remedial Investigation and/or Feasibility Study	Completed	7/15/1993	10/15/1994
Cleanup - Construction	Completed	7/1/1994	8/25/1994
Cleanup Action Plan	Completed	12/15/1994	3/15/1995
Remove site from Hazardous Sites List	Completed		2/21/1995
Site Status Changed to NFA	Completed		2/21/1995

Cleanup Site Details

Cleanup Site ID: 276

Cleanup Site ID: 276 **Facility/Site ID:** 1382 **UST ID:** N/A [Site Page](#) [Site Documents](#) [View Map](#)
Cleanup Site Name: UNOCAL BULK PLANT 0761 [Glossary](#)
Alternate Names: UNOCAL 0761, UNOCAL BULK PLANT 0761

LOCATION

Address: LEAVENS ST & CASCADE AVE **City:** STEVENSON **Zip Code:** 98648 **County:** Skamania
Latitude: 45.69326 **Longitude:** -121.88152 **WRIA:** 29 **Legislative District:** 14 **Congressional District:** 3 **TRS:** 2N 7E 42

DETAIL

Status: Cleanup Started **NFA Received?** No **Is PSI site?** No
Statute: MTCA **NFA Date:** N/A **Current VCP?** No **Past VCP?** Yes
Site Rank: 1 - Highest Assessed Risk **NFA Reason:** N/A **Brownfield?** No
Site Manager: Southwest Region **Responsible Unit:** Southwest **Active Institutional Control?** No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
UNOCAL BULK PLANT 0761	Upland	Cleanup Started	SW	Southwest Region	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Metals Priority Pollutants		C				
Non-Halogenated Solvents	C	C				
Petroleum Products-Unspecified	C	C	S		S	
Polycyclic Aromatic Hydrocarbons	C	C				

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Early Notice Letter(s)	Completed		7/16/1992
Hazardous Sites Listing/NPL	Completed		3/9/1993
VCP Opinion on Remedial Investigation	Completed	5/29/2009	8/19/2009
VCP Status Request	Completed	4/14/2015	6/18/2015

Cleanup Site Details

Cleanup Site ID: 632

Cleanup Site ID: 632 Facility/Site ID: 18962779 UST ID: N/A [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: Vancouver Hatchery [Glossary](#)

Alternate Names: VANCOUVER HATCHERY, WA DFW VANCOUVER HATCHERY

LOCATION

Address: 12208 SE EVERGREEN HWY City: VANCOUVER Zip Code: 98683 County: Clark
Latitude: 45.59790 Longitude: -122.54537 WRIA: 28 Legislative District: 17 Congressional District: 3 TRS: 1N 2E 39

DETAIL

Status: No Further Action NFA Received? Yes Is PSI site? No
Statute: MTCA NFA Date: 2/14/2017 Current VCP? No Past VCP? Yes
Site Rank: N/A NFA Reason: Voluntary Cleanup Program Review Brownfield? No
Site Manager: Mullin, Tim Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
VANCOUVER HATCHERY	Upland	No Further Action Required	SW	Mullin, Tim	Standard Voluntary Cleanup

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum Products-Unspecified	RB	RB				
Petroleum-Diesel	RB					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Initial Investigation / Federal Preliminary Assessment	Completed		3/10/2005
Early Notice Letter(s)	Completed		3/10/2005
VCP Receipt of Plan or Report	Completed		7/7/2016
VCP Opinion on Site Cleanup	Completed	7/7/2016	2/14/2017
VCP Receipt of Plan or Report	Completed		12/21/2016
VCP Receipt of Plan or Report	Completed		12/21/2016
Site Status Changed to NFA	Completed		2/14/2017

Cleanup Site Details

Cleanup Site ID: 690

Cleanup Site ID: 690 **Facility/Site ID:** 1384 **UST ID:** 4824 [Site Page](#) [Site Documents](#) [View Map](#)
Cleanup Site Name: Midstate Land Co [Glossary](#)
Alternate Names: MIDSTATE LAND CO, William Wilson

LOCATION

Address: 70 NW 2ND ST **City:** STEVENSON **Zip Code:** 98648 **County:** Skamania
Latitude: 45.69474 **Longitude:** -121.88036 **WRIA:** 29 **Legislative District:** 14 **Congressional District:** 3 **TRS:**

DETAIL

Status: No Further Action **NFA Received?** Yes **Is PSI site?** No
Statute: MTCA **NFA Date:** 3/30/1999 **Current VCP?** No **Past VCP?** No
Site Rank: N/A **NFA Reason:** SHA, IRAP, or VCP **Brownfield?** Yes
Site Manager: Southwest Region **Responsible Unit:** Southwest **Active Institutional Control?** Yes

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
MIDSTATE LAND CO	Upland	Cleanup Complete-Active O&M/Monitoring ongoing	SW	Southwest Region	Ecology-supervised or conducted

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
Environmental Covenant	Soil, Groundwater	Restrict All Ground Water Extraction/Well Installation, Prohibit Soil Disturbance	11/3/1998	133298	Skamania	373644400000

Institutional Control documents may be available under the 'Site Documents' link at the top of the page. For more details on Institutional Controls, please see the [Environmental Covenants Registry List](#).

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Halogenated Organics	R					

Key:
 B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
 S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
LUST - Notification	Completed		3/6/1990
LUST - Report Received	Completed		6/8/1995
Independent Report Review - Paid	Completed	6/14/1995	5/12/1997
Site Discovery/Release Report Received	Completed		2/1/1996
Site Status Changed to NFA	Completed		3/30/1999
Periodic Review	Completed	5/1/2012	7/30/2012
Periodic Review	Completed	3/1/2017	7/10/2017
Periodic Review	Planned	2/1/2022	7/10/2022

Cleanup Site Details

Cleanup Site ID: 1468

Cleanup Site ID: 1468 **Facility/Site ID:** 5007183 **UST ID:** N/A [Site Page](#) [Site Documents](#) [View Map](#)
Cleanup Site Name: Boise Cascade White Paper Vancouver [Glossary](#)
Alternate Names: Boise Cascade White Paper Vancouver

LOCATION

Address: 907 W 7TH ST **City:** VANCOUVER **Zip Code:** 98660 **County:** Clark
Latitude: 45.62502 **Longitude:** -122.68076 **WRIA:** 28 **Legislative District:** 49 **Congressional District:** 3 **TRS:**

DETAIL

Status: Cleanup Complete-Active O&M/Monitoring **NFA Received?** No **Is PSI site?** No
Statute: MTCA **NFA Date:** N/A **Current VCP?** No **Past VCP?** No
Site Rank: N/A **NFA Reason:** N/A **Brownfield?** No
Site Manager: Schrieve, Garin **Responsible Unit:** Solid Waste Program **Active Institutional Control?** No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
Boise Cascade White Paper Vancouver	Upland	Construction Complete-Performance Monitoring	SWP	Skyllingstad, Paul	Ecology-supervised or conducted

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Metals - Other	C					
Petroleum Products-Unspecified	C					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/Completion Date
Interim Action	Completed	3/1/2006	1/10/2010
Interim Action - O & M/Monitoring	In Process	1/10/2010	

Cleanup Site Details

Cleanup Site ID: 1507

Cleanup Site ID: 1507 **Facility/Site ID:** 3010189 **UST ID:** N/A [Site Page](#) [Site Documents](#) [View Map](#)
Cleanup Site Name: Stevenson Commerce Site [Glossary](#)
Alternate Names: STEVENSON COMMERCE SITE

LOCATION

Address: 167 NW 2ND ST **City:** STEVENSON **Zip Code:** 98648 **County:** Skamania
Latitude: 45.69472 **Longitude:** -121.88250 **WRIA:** 29 **Legislative District:** 14 **Congressional District:** 3 **TRS:** 3N 7E 43

DETAIL

Status: No Further Action **NFA Received?** Yes **Is PSI site?** No
Statute: MTCA **NFA Date:** 8/7/2006 **Current VCP?** No **Past VCP?** No
Site Rank: N/A **NFA Reason:** Site Hazard Assessment **Brownfield?** No
Site Manager: Matthews, Cris (SW) **Responsible Unit:** Southwest **Active Institutional Control?** No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
STEVENSON COMMERCE SITE	Upland	No Further Action Required	SW	Matthews, Cris (SW)	No Process

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum Products-Unspecified	B	S				

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Non-LUST Ind Report Received	Completed		7/2/2003
Initial Investigation / Federal Preliminary Assessment	Completed		8/2/2005
Early Notice Letter(s)	Completed		1/10/2006
Site Hazard Assessment/Federal Site Inspection	Completed	3/8/2006	8/7/2006
Site Status Changed to NFA	Completed		8/7/2006

Cleanup Site Details

Cleanup Site ID: 2033

Cleanup Site ID: 2033 Facility/Site ID: 15891 UST ID: N/A [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: Vancouver Port of Red Lion Hotel [Glossary](#)

Alternate Names: Port of Vancouver Red Lion Hotel, Vancouver Port of Red Lion Hotel

LOCATION

Address: 100 COLUMBIA ST City: VANCOUVER Zip Code: 98660 County: Clark
Latitude: 45.62266 Longitude: -122.67675 WRIA: 28 Legislative District: 49 Congressional District: 3 TRS: 2N 1E 51

DETAIL

Status: Cleanup Started NFA Received? No Is PSI site? No
Statute: MTCA NFA Date: N/A Current VCP? No Past VCP? No
Site Rank: N/A NFA Reason: N/A Brownfield? No
Site Manager: Southwest Region Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
Port of Vancouver Red Lion Hotel	Upland	Cleanup Started	SW	Southwest Region	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA

Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Metals Priority Pollutants	C	S				
Polycyclic Aromatic Hydrocarbons	C	S				

Key:

B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Initial Investigation / Federal Preliminary Assessment	Completed		6/15/2010
Early Notice Letter(s)	Completed		6/15/2010
Non-LUST Ind Report Received	Completed		11/17/2017
Non-LUST Ind Report Received	Completed		2/25/2020
Non-LUST Ind Report Received	Completed		2/25/2020
Non-LUST Ind Report Received	Completed		2/25/2020
Non-LUST Ind Report Received	Completed		2/25/2020
Non-LUST Ind Report Received	Completed		2/25/2020
Non-LUST Ind Report Received	Completed		2/25/2020

Cleanup Site Details

Cleanup Site ID: 2033

SITE ACTIVITIES			
Activity	Status	Start Date	End Date/ Completion Date
Non-LUST Ind Report Received	Completed		2/25/2020
Non-LUST Ind Report Received	Completed		2/25/2020

Cleanup Site Details

Cleanup Site ID: 2441

Cleanup Site ID: 2441 Facility/Site ID: 24972725 UST ID: 6925 [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: PRI Northwest Inc Vancouver

[Glossary](#)

Alternate Names: ALBINA ASPHALT TERMINAL 2, PRI NORTHWEST INC VANCOUVER, VANCOUVER MARINE TERMINAL

LOCATION

Address: 1300 W 8TH ST City: VANCOUVER Zip Code: 98660 County: Clark
Latitude: 45.62797 Longitude: -122.68628 WRIA: 28 Legislative District: 49 Congressional District: 3 TRS: 2N 1E 51

DETAIL

Status: Cleanup Started NFA Received? No Is PSI site? No
Statute: MTCA NFA Date: N/A Current VCP? Yes Past VCP? Yes
Site Rank: N/A NFA Reason: N/A Brownfield? No
Site Manager: Kasperski, Joseph Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
VANCOUVER MARINE TERMINAL	Upland	Cleanup Started	SW	Kasperski, Joseph	Standard Voluntary Cleanup

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA

Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum Products-Unspecified	C	C				
Polycyclic Aromatic Hydrocarbons	B					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Site Discovery/Release Report Received	Completed		10/16/1991
Remedial Investigation and/or Feasibility Study	Completed	9/11/1998	7/1/2005
VCP Opinion on Cleanup Action	Completed	1/9/2002	12/29/2003
VCP Opinion on Interim Action	Completed	12/11/2006	1/16/2007
VCP Status Request	Completed	12/12/2016	2/24/2017
VCP Receipt of Plan or Report	Completed		1/3/2017
VCP Receipt of Plan or Report	Completed		8/21/2017
VCP Receipt of Plan or Report	Completed		11/13/2017
VCP Receipt of Plan or Report	Completed		6/5/2018

Cleanup Site Details

Cleanup Site ID: 2441

SITE ACTIVITIES			
Activity	Status	Start Date	End Date/ Completion Date
VCP Receipt of Plan or Report	Completed		11/26/2018
VCP Receipt of Plan or Report	Completed		5/22/2019
VCP Receipt of Plan or Report	Completed		3/13/2020
VCP Receipt of Plan or Report	Completed		2/2/2021
VCP Receipt of Plan or Report	Completed		1/25/2023

Cleanup Site Details

Cleanup Site ID: 2482

Cleanup Site ID: 2482 Facility/Site ID: 4399598 UST ID: N/A [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: Hambleton Bros Log Yard [Glossary](#)

Alternate Names: HAMBLETON BROS LOG YARD, HAMBLETON LOG POND

LOCATION

Address: 335 S A ST City: WASHOUGAL Zip Code: 98671 County: Clark
Latitude: 45.57889 Longitude: -122.37611 WRIA: 28 Legislative District: 18 Congressional District: 3 TRS: 1N 3E 13

DETAIL

Status: No Further Action NFA Received? Yes Is PSI site? No
Statute: MTCA NFA Date: 8/6/2015 Current VCP? No Past VCP? No
Site Rank: N/A NFA Reason: Ecology Supervised/Conducted Cleanup Brownfield? Yes
Site Manager: Lawson, Rebecca Responsible Unit: Southwest Active Institutional Control? Yes

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
HAMBLETON BROS LOG YARD	Upland	No Further Action Required	SW	Middleton, Tom	Ecology-supervised or conducted

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
Environmental Covenant	Soil, Groundwater	Restrict All Ground Water Extraction/Well Installation, Restrict Domestic Ground Water Extraction/Well Installation, Prohibit Soil Disturbance	7/1/2015	5188876	Clark	73134153 and 73134179

Institutional Control documents may be available under the 'Site Documents' link at the top of the page. For more details on Institutional Controls, please see the [Environmental Covenants Registry List](#).

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Metals Priority Pollutants	RA	B	RB			
Petroleum Products-Unspecified	RA		RB			
Petroleum-Diesel	RA	RA				
Petroleum-Other	RA					
Phenolic Compounds			RB			
Polychlorinated biPhenyls (PCB)	RA					
Polycyclic Aromatic Hydrocarbons	RA		RB			

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Site Discovery/Release Report Received	Completed		10/15/2008
Early Notice Letter(s)	Completed		10/16/2008

Cleanup Site Details

Cleanup Site ID: 2482

SITE ACTIVITIES			
Activity	Status	Start Date	End Date/ Completion Date
Order/Decree/Amendment	In Process	4/30/2013	
Cleanup Action Plan	Completed	5/1/2013	6/28/2013
Cleanup Action - Engineering Design	Completed	6/29/2013	7/3/2014
Cleanup - Construction	Completed	8/22/2014	3/18/2015
Monitoring	In Process	4/17/2015	
Site Status Changed to NFA	Completed		8/6/2015
Periodic Review	Planned	7/1/2020	

Cleanup Site Details

Cleanup Site ID: 2575

Cleanup Site ID: 2575 Facility/Site ID: 24862 UST ID: N/A [Site Page](#) [Site Documents](#) [View Map](#)
 Cleanup Site Name: JT MARINE INC [Glossary](#)
 Alternate Names: JT MARINE INC

LOCATION

Address: 2301 SE HIDDEN WAY STE 100 City: VANCOUVER Zip Code: 98661 County: Clark
 Latitude: 45.61228 Longitude: -122.64406 WRIA: 28 Legislative District: 49 Congressional District: 3 TRS: 2N 1E 39

DETAIL

Status: No Further Action NFA Received? Yes Is PSI site? No
 Statute: MTCA NFA Date: 9/23/1996 Current VCP? No Past VCP? No
 Site Rank: N/A NFA Reason: Independent Remedial Action Program Review Brownfield? No
 Site Manager: Heggen, Dick Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
JT MARINE INC	Upland	No Further Action Required	SW	Heggen, Dick	IRAP

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum Products-Unspecified	R					

Key:

B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
 S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Independent Report Review - Paid	Completed	8/30/1996	9/23/1996
Site Status Changed to NFA	Completed		9/23/1996

Cleanup Site Details

Cleanup Site ID: 2795

Cleanup Site ID: 2795 Facility/Site ID: 1016 UST ID: 8200 [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: FMC Corp Vancouver [Glossary](#)

Alternate Names: Columbia Shores, FMC CORP VANCOUVER, FMC Property, FORMER FMC PROPERTY

LOCATION

Address: 1710 S ACCESS RD City: VANCOUVER Zip Code: 98661 County: Clark
Latitude: 45.61675 Longitude: -122.65452 WRIA: 28 Legislative District: 49 Congressional District: 3 TRS: 2N 1E 35

DETAIL

Status: No Further Action NFA Received? Yes Is PSI site? No
Statute: Pre-MTCA NFA Date: 10/1/1990 Current VCP? No Past VCP? No
Site Rank: N/A NFA Reason: Cleaned up under Prior Authority Brownfield? No
Site Manager: Southwest Region Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
FMC PROPERTY	Upland	No Further Action Required	SW	Southwest Region	No Process

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Halogenated Organics	S					
Polychlorinated biPhenyls (PCB)	S					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Site Discovery/Release Report Received	Completed		3/1/1988
Site Status Changed to NFA	Completed		10/1/1990

Cleanup Site Details

Cleanup Site ID: 2837

Cleanup Site ID: 2837 Facility/Site ID: 2297659 UST ID: N/A [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: Port Way ROW Pacific Coast Shredding [Glossary](#)

Alternate Names: PORT WAY ROW PACIFIC COAST SHREDDING

LOCATION

Address: PORT WAY City: VANCOUVER Zip Code: 98660 County: Clark
Latitude: 45.62889 Longitude: -122.68750 WRIA: 28 Legislative District: 49 Congressional District: 3 TRS: 2N 1E 51

DETAIL

Status: Awaiting Cleanup NFA Received? No Is PSI site? No
Statute: MTCA NFA Date: N/A Current VCP? No Past VCP? No
Site Rank: N/A NFA Reason: N/A Brownfield? No
Site Manager: Southwest Region Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
PORT WAY ROW PACIFIC COAST SHREDDING	Upland	Awaiting Cleanup	SW	Southwest Region	No Process

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum Products-Unspecified	S	S				

Key:

B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Initial Investigation / Federal Preliminary Assessment	Completed		9/2/2008
Early Notice Letter(s)	Completed		9/23/2008

Cleanup Site Details

Cleanup Site ID: 2925

Cleanup Site ID: 2925 Facility/Site ID: 1052 UST ID: 329 [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: ORBIT INDUSTRIES [Glossary](#)

Alternate Names: ORBIT INDUSTRIES, Orbit Industries Inc

LOCATION

Address: 778 S 27TH ST City: WASHOUGAL Zip Code: 98671 County: Clark
Latitude: 45.57080 Longitude: -122.34296 WRIA: 28 Legislative District: 18 Congressional District: 3 TRS: 1N 4E 47

DETAIL

Status: No Further Action NFA Received? Yes Is PSI site? No
Statute: MTCA NFA Date: 6/20/1997 Current VCP? No Past VCP? No
Site Rank: 4 - Low-Moderate Risk NFA Reason: Ecology Supervised/Conducted Cleanup Brownfield? No
Site Manager: Henderson, Mark Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
ORBIT INDUSTRIES INC	Upland	No Further Action Required	SW	Henderson, Mark	No Process

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Metals Priority Pollutants	R	B	B		B	

Key:

B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Site Hazard Assessment/Federal Site Inspection	Completed	3/1/1991	8/1/1991
Hazardous Sites Listing/NPL	Completed		8/27/1991
Remove site from Hazardous Sites List	Completed		6/20/1997
Site Status Changed to NFA	Completed		6/20/1997

Cleanup Site Details

Cleanup Site ID: 3057

Cleanup Site ID: 3057 Facility/Site ID: 1029 UST ID: N/A [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: Fort Vancouver Plywood [Glossary](#)

Alternate Names: Fort Vancouver Plywood, VANCOUVER PLYWOOD, VANCOUVER PORT FVP

LOCATION

Address: W 8TH ST City: VANCOUVER Zip Code: 98660 County: Clark

Latitude: 45.62847 Longitude: -122.68906 WRIA: 28 Legislative District: 49 Congressional District: 3 TRS:

DETAIL

Status: Construction Complete-Performance Monitoring NFA Received? No Is PSI site? No

Statute: MTCA NFA Date: N/A Current VCP? No Past VCP? No

Site Rank: N/A NFA Reason: N/A Brownfield? No

Site Manager: Praisewater, Thomas Responsible Unit: Southwest Active Institutional Control? Yes

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
Fort Vancouver Plywood	Upland	Cleanup Complete-Active O&M/Monitoring ongoing	SW	Rankine, Craig	Ecology-supervised or conducted

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
Environmental Covenant	Soil, Groundwater	Restrict Land Use, Restrict All Ground Water Extraction/Well Installation, Prohibit Soil Disturbance	6/14/2000	3226928	Clark	058657000
Environmental Covenant	Soil, Groundwater	Restrict Land Use, Restrict All Ground Water Extraction/Well Installation	4/21/2006	4155720	Clark	058657000

Institutional Control documents may be available under the 'Site Documents' link at the top of the page. For more details on Institutional Controls, please see the [Environmental Covenants Registry List](#).

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Benzene	C					
Halogenated Organics		C				
Lead	C					
Metals - Other		C				
Petroleum-Diesel	C					
Petroleum-Gasoline	C					
Petroleum-Other	C					
Phenolic Compounds	C					
Polycyclic Aromatic Hydrocarbons	C					

Key:
 B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
 S - Suspected R - Remediated RB - Remediated-Below

Cleanup Site Details

Cleanup Site ID: 3057

SITE ACTIVITIES			
Activity	Status	Start Date	End Date/ Completion Date
Order/Decree/Amendment	In Process		
Interim Action	Completed	10/4/1996	12/31/2001
Early Notice Letter(s)	Completed		11/19/1996
Cleanup - Construction	Completed	7/1/2002	12/31/2002
Periodic Review	Completed	1/1/2003	5/1/2008
O & M	In Process	1/1/2003	
Periodic Review	Completed	11/1/2014	3/9/2015
Periodic Review	Completed	6/1/2020	12/7/2020
Periodic Review	Planned	6/1/2025	12/7/2025

Cleanup Site Details

Cleanup Site ID: 3192

Cleanup Site ID: 3192	Facility/Site ID: 27945	UST ID: N/A	Site Page	Site Documents	View Map	
Cleanup Site Name: Columbia Business Park Bldg 41 Bay 3					Glossary	
Alternate Names: COLUMBIA BUSINESS PARK BLDG 41 BAY 3						
LOCATION						
Address: 3001 SE COLUMBIA WAY BLDG 41 BAY 3		City: VANCOUVER	Zip Code: 98661	County: Clark		
Latitude: 45.61815	Longitude: -122.65881	WRIA: 28	Legislative District: 49	Congressional District: 3	TRS: 2N 1E 35	
DETAIL						
Status: No Further Action	NFA Received? Yes	Is PSI site? No				
Statute: MTCA	NFA Date: 7/17/1996	Current VCP? No		Past VCP? No		
Site Rank: N/A	NFA Reason: Independent Remedial Action Program Review	Brownfield? No				
Site Manager: Heggen, Dick	Responsible Unit: Southwest	Active Institutional Control? No				
CLEANUP UNITS						
Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process	
COLUMBIA BUSINESS PARK BLDG 41 BAY 3	Upland	No Further Action Required	SW	Heggen, Dick	IRAP	
ACTIVE INSTITUTIONAL CONTROLS						
Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
There are no current Institutional Controls in effect for this site.						
AFFECTED MEDIA & CONTAMINANTS						
MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum Products-Unspecified	R					
Key: B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above S - Suspected R - Remediated RB - Remediated-Below						
SITE ACTIVITIES						
Activity	Status		Start Date	End Date/ Completion Date		
Independent Report Review - Paid	Completed		6/17/1996	7/17/1996		
Site Status Changed to NFA	Completed			7/17/1996		

Cleanup Site Details

Cleanup Site ID: 3312

Cleanup Site ID: 3312 **Facility/Site ID:** 6368118 **UST ID:** 4280 [Site Page](#) [Site Documents](#) [View Map](#)
Cleanup Site Name: BROUGHTON LUMBER CO [Glossary](#)
Alternate Names: BROUGHTON LUMBER CO, BROUGHTON LUMBER COMPANY

LOCATION

Address: 92 Firehouse RD **City:** UNDERWOOD **Zip Code:** 98651 **County:** Skamania
Latitude: 45.72528 **Longitude:** -121.55936 **WRIA:** 29 **Legislative District:** 14 **Congressional District:** 3 **TRS:** 3N 10E 21

DETAIL

Status: Awaiting Cleanup **NFA Received?** No **Is PSI site?** No
Statute: MTCA **NFA Date:** N/A **Current VCP?** No **Past VCP?** No
Site Rank: 5 - Lowest Assessed Risk **NFA Reason:** N/A **Brownfield?** No
Site Manager: Southwest Region **Responsible Unit:** Southwest **Active Institutional Control?** No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
BROUGHTON LUMBER COMPANY	Upland	Awaiting Cleanup	SW	Southwest Region	No Process

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Asbestos	S	S				
Base/Neutral/Acid Organics	S	S				
Metals Priority Pollutants	S	S				
Non-Halogenated Solvents	S	S				
Petroleum Products-Unspecified	S	S				
Phenolic Compounds	S	S				
Polycyclic Aromatic Hydrocarbons	S	S				

Key:

B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Initial Investigation / Federal Preliminary Assessment	Completed		7/23/2008
Site Discovery/Release Report Received	Completed		7/23/2008
Early Notice Letter(s)	Completed		8/29/2008
Site Hazard Assessment/Federal Site Inspection	Completed	8/18/2014	4/29/2015

Cleanup Site Details

Cleanup Site ID: 3312

SITE ACTIVITIES			
Activity	Status	Start Date	End Date/ Completion Date
Hazardous Sites Listing/NPL	Completed		4/29/2015

Cleanup Site Details

Cleanup Site ID: 3679

Cleanup Site ID: 3679 Facility/Site ID: 1037 UST ID: 3406 [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: Vancouver Ice & Fuel Oil [Glossary](#)

Alternate Names: Albion, VANCOUVER ICE & FUEL ALBINA ASPHALT, VANCOUVER ICE & FUEL OIL, VANCOUVER ICE AND FUEL

LOCATION

Address: 1112 W 7TH ST City: VANCOUVER Zip Code: 98666 County: Clark
Latitude: 45.62678 Longitude: -122.68307 WRIA: 28 Legislative District: 49 Congressional District: 3 TRS: 2N 1E 51

DETAIL

Status: Cleanup Started NFA Received? No Is PSI site? No
Statute: MTCA NFA Date: N/A Current VCP? No Past VCP? No
Site Rank: N/A NFA Reason: N/A Brownfield? No
Site Manager: Kasperski, Joseph Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
VANCOUVER ICE AND FUEL	Upland	Cleanup Started	SW	Kasperski, Joseph	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Benzene	C	C			S	
Lead	C					
Non-Halogenated Solvents	C	C			S	
Petroleum-Diesel	C	C				
Petroleum-Gasoline	C	C			S	
Petroleum-Other	C	C				
Polycyclic Aromatic Hydrocarbons	C	C				

Key:

B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Site Discovery/Release Report Received	Completed		7/30/1988
Initial Investigation / Federal Preliminary Assessment	Completed		9/30/1988
Site Hazard Assessment/Federal Site Inspection	Completed	2/10/1995	6/29/1995
Site Status Changed to NFA	Completed		6/29/1995

Cleanup Site Details

Cleanup Site ID: 3679

SITE ACTIVITIES			
Activity	Status	Start Date	End Date/ Completion Date
LUST - Report Received	Completed		8/10/1999
LUST - Notification	Completed		9/17/2018
LUST - Site Assessment Report	Completed		10/17/2018
Non-LUST Ind Report Received	Completed		3/1/2019
Reopen Site	Completed		4/15/2019
LUST - Report Received	Completed		5/28/2021
LUST - Report Received	Completed		6/16/2021
LUST - Report Received	Completed		3/8/2023

Cleanup Site Details

Cleanup Site ID: 3849

Cleanup Site ID: 3849 **Facility/Site ID:** 406 **UST ID:** N/A [Site Page](#) [Site Documents](#) [View Map](#)
Cleanup Site Name: NW Pipeline Meter Station Hood River [Glossary](#)
Alternate Names: NW Pipeline Meter Station Hood River, NW PIPELINE ST HOOD RIVER

LOCATION

Address: HWY 14 **City:** BINGEN **Zip Code:** 98605 **County:** Klickitat
Latitude: 45.72456 **Longitude:** -121.48979 **WRIA:** 29 **Legislative District:** 14 **Congressional District:** 3 **TRS:** 3N 10E 24

DETAIL

Status: No Further Action **NFA Received?** Yes **Is PSI site?** No
Statute: MTCA **NFA Date:** 2/15/2010 **Current VCP?** No **Past VCP?** Yes
Site Rank: 5 - Lowest Assessed Risk **NFA Reason:** Voluntary Cleanup Program Review **Brownfield?** No
Site Manager: Plath, Brianne **Responsible Unit:** Central **Active Institutional Control?** No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
NW Pipeline Meter Station Hood River	Upland	No Further Action Required	CE	Plath, Brianne	Standard Voluntary Cleanup

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Mercury	RB					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Initial Investigation / Federal Preliminary Assessment	Completed		8/28/1991
Site Hazard Assessment/Federal Site Inspection	Completed	8/19/1994	12/30/1994
Hazardous Sites Listing/NPL	Completed		2/21/1995
VCP Opinion on Cleanup Action Plan	Completed	3/21/2007	7/9/2009
Remove site from Hazardous Sites List	Completed		2/15/2010
Site Status Changed to NFA	Completed		2/15/2010

Cleanup Site Details

Cleanup Site ID: 4018

Cleanup Site ID: 4018 Facility/Site ID: 5922991 UST ID: N/A [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: Vancouver Port of 058720-000 [Glossary](#)

Alternate Names: PORT OF VANCOUVER 058720-000, VANCOUVER PORT 058720-000, Vancouver Port of 058720-000

LOCATION

Address: 1501 W 8TH ST City: VANCOUVER Zip Code: 98660 County: Clark
Latitude: 45.62722 Longitude: -122.68778 WRIA: 28 Legislative District: 49 Congressional District: 3 TRS: 2N 1E 51

DETAIL

Status: Awaiting Cleanup NFA Received? No Is PSI site? No
Statute: MTCA NFA Date: N/A Current VCP? No Past VCP? No
Site Rank: 5 - Lowest Assessed Risk NFA Reason: N/A Brownfield? No
Site Manager: Southwest Region Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
PORT OF VANCOUVER 058720-000	Upland	Awaiting Cleanup	SW	Southwest Region	No Process

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum Products-Unspecified	S	C				

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Early Notice Letter(s)	Completed		10/7/2008
Initial Investigation / Federal Preliminary Assessment	Completed		10/7/2008
Site Hazard Assessment/Federal Site Inspection	Completed	3/6/2012	4/2/2012
Hazardous Sites Listing/NPL	Completed		4/2/2012

Cleanup Site Details

Cleanup Site ID: 4118

Cleanup Site ID: 4118 Facility/Site ID: 1283112 UST ID: 11045 [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: Cascade Paint [Glossary](#)

Alternate Names: BURKES PAINT CO INC, BURKES PAINT COMPANY INC, Cascade Paint

LOCATION

Address: 727 S 27TH ST City: WASHOUGAL Zip Code: 98671 County: Clark
Latitude: 45.57196 Longitude: -122.34367 WRIA: 28 Legislative District: 18 Congressional District: 3 TRS: 1N 4E 47

DETAIL

Status: No Further Action NFA Received? Yes Is PSI site? No
Statute: MTCA NFA Date: 2/5/1999 Current VCP? No Past VCP? No
Site Rank: N/A NFA Reason: Site Hazard Assessment Brownfield? No
Site Manager: Rankine, Craig Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
BURKES PAINT COMPANY INC	Upland	No Further Action Required	SW	Rankine, Craig	No Process

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Halogenated Organics	S	S				
Non-Halogenated Solvents	S	S				
Pesticides-Unspecified	S	S				

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Initial Investigation / Federal Preliminary Assessment	Completed		2/15/1998
Site Hazard Assessment/Federal Site Inspection	Completed	9/15/1998	2/5/1999
Site Status Changed to NFA	Completed		2/5/1999

Cleanup Site Details

Cleanup Site ID: 4718

Cleanup Site ID: 4718 Facility/Site ID: 405 UST ID: N/A [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: NW Pipeline Meter Station White Salmon [Glossary](#)

Alternate Names: NW Pipeline Meter Station White Salmon, NW PIPELINE ST WHITE SALMON

LOCATION

Address: HWY 14 City: BINGEN Zip Code: 98605 County: Klickitat
Latitude: 45.72456 Longitude: -121.48979 WRIA: 29 Legislative District: 14 Congressional District: 3 TRS: 3N 10E 24

DETAIL

Status: No Further Action NFA Received? Yes Is PSI site? No
Statute: MTCA NFA Date: 2/15/2010 Current VCP? No Past VCP? Yes
Site Rank: 5 - Lowest Assessed Risk NFA Reason: Voluntary Cleanup Program Review Brownfield? No
Site Manager: Plath, Brianne Responsible Unit: Central Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
NW Pipeline Meter Station White Salmon	Upland	No Further Action Required	CE	Plath, Brianne	Standard Voluntary Cleanup Program

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Mercury	RB					

Key:

B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Initial Investigation / Federal Preliminary Assessment	Completed		8/28/1991
Site Hazard Assessment/Federal Site Inspection	Completed	8/19/1994	12/30/1994
Hazardous Sites Listing/NPL	Completed		2/21/1995
VCP Opinion on Cleanup Action Plan	Completed	3/21/2007	7/7/2009
Remove site from Hazardous Sites List	Completed		2/15/2010
Site Status Changed to NFA	Completed		2/15/2010

Cleanup Site Details

Cleanup Site ID: 4982

Cleanup Site ID: 4982 Facility/Site ID: 1069 UST ID: 8747 [Site Page](#) [Site Documents](#) [View Map](#)
 Cleanup Site Name: ARCO SS 4185 [Glossary](#)
 Alternate Names: ARCO 04185, ARCO 4185, ARCO SS 4185

LOCATION

Address: 7609 MACARTHUR BLVD City: VANCOUVER Zip Code: 98664 County: Clark
 Latitude: 45.60817 Longitude: -122.58454 WRIA: 28 Legislative District: 49 Congressional District: 3 TRS: 2N 2E 62

DETAIL

Status: No Further Action NFA Received? Yes Is PSI site? No
 Statute: MTCA NFA Date: 10/8/1993 Current VCP? No Past VCP? No
 Site Rank: N/A NFA Reason: Independent Remedial Action Program Review Brownfield? No
 Site Manager: Heggen, Dick Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
ARCO 4185	Upland	No Further Action Required	SW	Southwest Region	IRAP

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum-Other	C					

Key:

B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
 S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
LUST - Notification	Completed		5/24/1993
LUST - Report Received	Completed		6/28/1993
LUST - Report Received	Completed		6/28/1993
Independent Report Review - Paid	Completed	9/2/1993	10/8/1993
Site Status Changed to NFA	Completed		10/8/1993

Cleanup Site Details

Cleanup Site ID: 6232

Cleanup Site ID: 6232 Facility/Site ID: 53227158 UST ID: 11590 [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: Lyle School Dist Bus Garage [Glossary](#)

Alternate Names: LYLE SCHOOL DIST BUS GARAGE, LYLE SCHOOL DISTRICT BUS GARAGE

LOCATION

Address: HWY 14 & 5TH ST City: LYLE Zip Code: 98863 County: Klickitat
Latitude: 45.69340 Longitude: -121.28565 WRIA: 30 Legislative District: 14 Congressional District: 3 TRS: 2N 12E 3

DETAIL

Status: No Further Action NFA Received? Yes Is PSI site? No
Statute: MTCA NFA Date: 12/1/2005 Current VCP? No Past VCP? No
Site Rank: N/A NFA Reason: Independent Cleanup Reviewed by Ecology Brownfield? No
Site Manager: Central Region Responsible Unit: Central Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
Lyle School Dist Bus Garage	Upland	No Further Action Required	CE	Central Region	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum-Diesel	RB					
Petroleum-Gasoline	RB					
Petroleum-Other	RB					

Key:

B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
LUST - Notification	Completed		9/16/1996
Initial Investigation / Federal Preliminary Assessment	Completed		10/3/1996
LUST - Report Received	Completed		2/26/1998
Early Notice Letter(s)	Completed		8/11/1998
LUST - Report Received	Completed		1/28/1999
Site Status Changed to NFA	Completed		12/1/2005

Cleanup Site Details

Cleanup Site ID: 7922

Cleanup Site ID: 7922 Facility/Site ID: 12126843 UST ID: 10252 [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: Hannah Mitsubishi [Glossary](#)

Alternate Names: Hannah Mitsubishi, HANNAH MOTOR COMPANY, Vancouver Mitsubishi

LOCATION

Address: 300 WASHINGTON ST City: VANCOUVER Zip Code: 98668 County: Clark
Latitude: 45.62332 Longitude: -122.67312 WRIA: 28 Legislative District: 49 Congressional District: 3 TRS: 2N 1E 51

DETAIL

Status: No Further Action NFA Received? Yes Is PSI site? No
Statute: MTCA NFA Date: 8/20/2012 Current VCP? No Past VCP? No
Site Rank: N/A NFA Reason: Initial Investigation Brownfield? No
Site Manager: Southwest Region Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
HANNAH MITSUBISHI	Upland	No Further Action Required	SW	Southwest Region	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Benzene	B					
Metals - Other	B					
Other Non-Halogenated Organics	B					
Petroleum-Other	RB					
Polycyclic Aromatic Hydrocarbons	B					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
LUST - Notification	Completed		10/21/1993
Site Discovery/Release Report Received	Completed		10/21/1993
LUST - Report Received	Completed		12/31/1994
Initial Investigation / Federal Preliminary Assessment	Completed		12/12/2011
LUST - NFA Determination II or SHA	Completed		8/20/2012
Site Status Changed to NFA	Completed		8/20/2012

Cleanup Site Details

Cleanup Site ID: 8236

Cleanup Site ID: 8236 **Facility/Site ID:** 19388181 **UST ID:** 100111 [Site Page](#) [Site Documents](#) [View Map](#)
Cleanup Site Name: Skamania General Store [Glossary](#)
Alternate Names: SKAMANIA GENERAL STORE

LOCATION

Address: MP 33L STATE HWY 14 **City:** SKAMANIA **Zip Code:** 98648 **County:** Skamania
Latitude: 45.61447 **Longitude:** -122.05226 **WRIA:** 28 **Legislative District:** 14 **Congressional District:** 3 **TRS:** 2N 6E 34

DETAIL

Status: No Further Action **NFA Received?** Yes **Is PSI site?** No
Statute: MTCA **NFA Date:** 7/26/2012 **Current VCP?** No **Past VCP?** No
Site Rank: N/A **NFA Reason:** Initial Investigation **Brownfield?** No
Site Manager: Southwest Region **Responsible Unit:** Southwest **Active Institutional Control?** No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
SKAMANIA GENERAL STORE	Upland	No Further Action Required	SW	Southwest Region	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Benzene	B					
Lead	RB					
Other Non-Halogenated Organics	B					
Petroleum-Diesel	B					
Petroleum-Gasoline	B					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
LUST - Notification	Completed		7/25/1995
Site Discovery/Release Report Received	Completed		7/25/1995
LUST - Report Received	Completed		9/21/1995
LUST - Report Received	Completed		6/3/1996
Initial Investigation / Federal Preliminary Assessment	Completed		1/5/2012
Site Status Changed to NFA	Completed		7/26/2012

Cleanup Site Details

Cleanup Site ID: 8497

Cleanup Site ID: 8497 Facility/Site ID: 25886634 UST ID: 8855 [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: Hunsaker Oil Stevenson Station [Glossary](#)

Alternate Names: HUNSAKER OIL - STEVENSON STATION, HUNSAKER OIL STEVENSON STATION

LOCATION

Address: 2ND & COLUMBIA City: STEVENSON Zip Code: 98648 County: Skamania
Latitude: 45.69501 Longitude: -121.88113 WRIA: 29 Legislative District: 14 Congressional District: 3 TRS: 3N 7E 43

DETAIL

Status: Cleanup Started NFA Received? No Is PSI site? No
Statute: MTCA NFA Date: N/A Current VCP? No Past VCP? No
Site Rank: N/A NFA Reason: N/A Brownfield? No
Site Manager: Kasperski, Joseph Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
HUNSAKER OIL - STEVENSON STATION	Upland	Cleanup Started	SW	Kasperski, Joseph	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Benzene	C					
Other Non-Halogenated Organics	B					
Petroleum-Diesel	S	S				
Petroleum-Gasoline	C	S				
Petroleum-Other		C				

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
LUST - Notification	Completed		9/4/1998
Site Discovery/Release Report Received	Completed		9/4/1998
LUST - Report Received	Completed		9/18/1998
LUST - Report Received	Completed		10/1/1998
Initial Investigation / Federal Preliminary Assessment	Completed		1/5/2012

Cleanup Site Details

Cleanup Site ID: 8497

SITE ACTIVITIES			
Activity	Status	Start Date	End Date/ Completion Date
Early Notice Letter(s)	Completed		2/12/2013

Cleanup Site Details

Cleanup Site ID: 8689

Cleanup Site ID: 8689 Facility/Site ID: 31863326 UST ID: 200141 [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: Columbia Business Center Bldg 37 [Glossary](#)

Alternate Names: COLUMBIA BUSINESS CENTER BLDG 37, COLUMBIA BUSINESS CENTER UST 200141

LOCATION

Address: 2501 SE COLUMBIA WAY City: VANCOUVER Zip Code: 98661 County: Clark
Latitude: 45.61716 Longitude: -122.64921 WRIA: 28 Legislative District: 49 Congressional District: 3 TRS: 2N 1E 39

DETAIL

Status: No Further Action NFA Received? Yes Is PSI site? No
Statute: MTCA NFA Date: 8/5/1996 Current VCP? No Past VCP? No
Site Rank: N/A NFA Reason: Historic LUST Brownfield? No
Site Manager: Southwest Region Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
COLUMBIA BUSINESS CENTER BLDG 37	Upland	No Further Action Required	SW	Southwest Region	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum-Other	C					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
LUST - Notification	Completed		9/26/1994
LUST - Report Received	Completed		6/14/1996
LUST - Report Received	Completed		7/1/1996
Site Status Changed to NFA	Completed		8/5/1996

Cleanup Site Details

Cleanup Site ID: 8951

Cleanup Site ID: 8951 Facility/Site ID: 37822876 UST ID: 11507 [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: KLINKITAT COUNTY PUBLIC WORKS LYLE [Glossary](#)

Alternate Names: KLINKITAT COUNTY PUBLIC WORKS LYLE, KLINKITAT COUNTY SHOP LYLE, KLINKITAT COUNTY SHOP OF LYLE

LOCATION

Address: 20300 STATE ST City: LYLE Zip Code: 98635 County: Klickitat
Latitude: 45.69157 Longitude: -121.27964 WRIA: 30 Legislative District: 14 Congressional District: 3 TRS: 2N 12E 2

DETAIL

Status: No Further Action NFA Received? Yes Is PSI site? No
Statute: MTCA NFA Date: 8/15/2006 Current VCP? No Past VCP? No
Site Rank: N/A NFA Reason: Historic LUST Brownfield? No
Site Manager: Central Region Responsible Unit: Central Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
KLINKITAT COUNTY PUBLIC WORKS LYLE	Upland	No Further Action Required	CE	Central Region	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum-Diesel	C					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
LUST - Notification	Completed		9/5/1991
LUST - Report Received	Completed		10/8/1991
LUST - Report Received	Completed		12/3/1991
LUST - Site Assessment Report	Completed		4/9/1992
Site Status Changed to NFA	Completed		8/15/2006

Cleanup Site Details

Cleanup Site ID: 10166

Cleanup Site ID: 10166 Facility/Site ID: 68499396 UST ID: 153 [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: Federal Highway Administration Vancouver

[Glossary](#)

Alternate Names: FEDERAL HIGHWAY ADMINISTRATION, Federal Highway Administration Vancouver, US DOT Federal Highway Admin Vancouver

LOCATION

Address: 610 E 5TH ST **City:** VANCOUVER **Zip Code:** 98661 **County:** Clark
Latitude: 45.62490 **Longitude:** -122.67687 **WRIA:** 28 **Legislative District:** 49 **Congressional District:** 3 **TRS:** 2N 1E 51

DETAIL

Status: No Further Action **NFA Received?** Yes **Is PSI site?** No
Statute: MTCA **NFA Date:** 3/21/2012 **Current VCP?** No **Past VCP?** No
Site Rank: N/A **NFA Reason:** Initial Investigation **Brownfield?** No
Site Manager: Headquarters **Responsible Unit:** Headquarters **Active Institutional Control?** No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
FEDERAL HIGHWAY ADMINISTRATION	Upland	No Further Action Required	HQ	Headquarters	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum-Other	C					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
LUST - Notification	Completed		2/26/1990
LUST - Report Received	Completed		5/2/1990
Site Status Changed to NFA	Completed		3/21/2012

Cleanup Site Details

Cleanup Site ID: 11089

Cleanup Site ID: 11089 Facility/Site ID: 92847997 UST ID: 10714 [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: The Port Sider Store on the Marina [Glossary](#)

Alternate Names: CAMAS WASHOUGAL PORT, THE PORT SIDER STORE ON THE MARINA

LOCATION

Address: 24 A ST City: WASHOUGAL Zip Code: 98671 County: Clark

Latitude: 45.57833 Longitude: -122.38270 WRIA: 28 Legislative District: 18 Congressional District: 3 TRS:

DETAIL

Status: No Further Action	NFA Received? Yes	Is PSI site? No
Statute: MTCA	NFA Date: 8/20/2012	Current VCP? No Past VCP? No
Site Rank: N/A	NFA Reason: Initial Investigation	Brownfield? No
Site Manager: Southwest Region	Responsible Unit: Southwest	Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
THE PORT SIDER STORE ON THE MARINA	Upland	No Further Action Required	SW	Southwest Region	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Benzene	B					
Other Non-Halogenated Organics	B					
Petroleum-Gasoline	RB					

Key:

B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
LUST - Notification	Completed		3/19/1990
Site Discovery/Release Report Received	Completed		3/19/1990
Initial Investigation / Federal Preliminary Assessment	Completed		12/12/2011
LUST - NFA Determination II or SHA	Completed		8/20/2012
Site Status Changed to NFA	Completed		8/20/2012

Cleanup Site Details

Cleanup Site ID: 11281

Cleanup Site ID: 11281 Facility/Site ID: 97478399 UST ID: 2595 [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: SDS LUMBER CO [Glossary](#)

Alternate Names: SDS LUMBER CO, SDS LUMBER CO Bingen, SDS LUMBER COMPANY

LOCATION

Address: WALNUT & STEUBEN City: BINGEN Zip Code: 98605 County: Klickitat
Latitude: 45.71469 Longitude: -121.46919 WRIA: 29 Legislative District: 14 Congressional District: 3 TRS: 3N 11E 30

DETAIL

Status: No Further Action NFA Received? Yes Is PSI site? No
Statute: MTCA NFA Date: 2/8/2011 Current VCP? No Past VCP? No
Site Rank: N/A NFA Reason: Initial Investigation Brownfield? No
Site Manager: Central Region Responsible Unit: Central Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
SDS LUMBER CO	Upland	No Further Action Required	CE	Central Region	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum-Diesel	RB					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
LUST - Notification	Completed		1/4/1991
LUST - Report Received	Completed		10/14/1991
Site Discovery/Release Report Received	Completed		10/14/1991
LUST - Report Received	Completed		1/21/1992
LUST - Report Received	Completed		3/22/1993
Initial Investigation / Federal Preliminary Assessment	Completed		2/8/2011
Site Status Changed to NFA	Completed		2/8/2011
LUST - NFA Determination II or SHA	Completed		2/8/2011

Cleanup Site Details

Cleanup Site ID: 11628

Cleanup Site ID: 11628 Facility/Site ID: 37578187 UST ID: 7507 [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: Kiewit Construction

[Glossary](#)

Alternate Names: COLUMBIA VISTA CORP, KIEWIT CONSTRUCTION, Western Forest Products US LLC - Columbia Vista

LOCATION

Address: 18637 SE Evergreen Hwy City: Vancouver Zip Code: 98683 County: Clark
Latitude: 45.58596 Longitude: -122.48705 WRIA: 28 Legislative District: 18 Congressional District: 3 TRS: 1N 3E 50

DETAIL

Status: No Further Action NFA Received? Yes Is PSI site? No
Statute: MTCA NFA Date: 7/7/2011 Current VCP? No Past VCP? No
Site Rank: N/A NFA Reason: Initial Investigation Brownfield? No
Site Manager: Matthews, Cris (SW) Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
Kiewit Construction	Upland	No Further Action Required	SW	Local Government-SW	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum-Other	RB					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Initial Investigation / Federal Preliminary Assessment	Completed		7/7/2011
Site Status Changed to NFA	Completed		7/7/2011

Cleanup Site Details

Cleanup Site ID: 11752

Cleanup Site ID: 11752 **Facility/Site ID:** 33568379 **UST ID:** N/A [Site Page](#) [Site Documents](#) [View Map](#)
Cleanup Site Name: Exterior Wood Inc [Glossary](#)
Alternate Names: Exterior Wood Inc

LOCATION

Address: 2685 INDEX ST **City:** WASHOUGAL **Zip Code:** 98671 **County:** Clark
Latitude: 45.57266 **Longitude:** -122.34643 **WRIA:** 28 **Legislative District:** 18 **Congressional District:** 3 **TRS:** 1N 4E 47

DETAIL

Status: Cleanup Started **NFA Received?** No **Is PSI site?** No
Statute: MTCA **NFA Date:** N/A **Current VCP?** No **Past VCP?** No
Site Rank: N/A **NFA Reason:** N/A **Brownfield?** No
Site Manager: Kaufmann, Ron **Responsible Unit:** Hazardous Waste **Active Institutional Control?** No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
EXTERIOR WOOD INC	Upland	Cleanup Started	HWTR	Kaufmann, Ron	Ecology-supervised or conducted

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Arsenic	C	C				
Metals - Other	C					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Initial Investigation / Federal Preliminary Assessment	Completed		1/4/2011
Site Discovery/Release Report Received	Completed		12/20/2011
Early Notice Letter(s)	Completed		1/4/2012
Non-LUST Ind Report Received	Completed		5/13/2021
Non-LUST Ind Report Received	Completed		5/13/2021

Cleanup Site Details

Cleanup Site ID: 12064

Cleanup Site ID: 12064 **Facility/Site ID:** 879 **UST ID:** N/A [Site Page](#) [Site Documents](#) [View Map](#)
Cleanup Site Name: Waubish St Heating Oil Tank [Glossary](#)
Alternate Names: Waubish St Heating Oil Tank

LOCATION

Address: 725 SW WAUBISH ST **City:** WHITE SALMON **Zip Code:** 98672 **County:** Klickitat
Latitude: 45.72792 **Longitude:** -121.50205 **WRIA:** 29 **Legislative District:** 14 **Congressional District:** 3 **TRS:** 3N 10E 24

DETAIL

Status: No Further Action **NFA Received?** Yes **Is PSI site?** No
Statute: MTCA **NFA Date:** 1/18/2013 **Current VCP?** No **Past VCP?** No
Site Rank: N/A **NFA Reason:** Initial Investigation **Brownfield?** No
Site Manager: Durkee, Matt **Responsible Unit:** Central **Active Institutional Control?** No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
Waubish St Heating Oil Tank	Upland	No Further Action Required	CE	Durkee, Matt	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum-Diesel	RB					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Site Discovery/Release Report Received	Completed		1/30/2012
Initial Investigation / Federal Preliminary Assessment	Completed		12/18/2012
Site Status Changed to NFA	Completed		1/18/2013

Cleanup Site Details

Cleanup Site ID: 12623

Cleanup Site ID: 12623 **Facility/Site ID:** 17655 **UST ID:** N/A [Site Page](#) [Site Documents](#) [View Map](#)
Cleanup Site Name: BNSF RR SR 14 @ MP 54.5 [Glossary](#)
Alternate Names: BNSF RR SR 14 @ MP 54.5, BNSF RR SR 14 at MP 54.5

LOCATION

Address: MP 54.5 SR 14 **City:** Stevenson **Zip Code:** **County:** Skamania
Latitude: 45.70754 **Longitude:** -121.68088 **WRIA:** 29 **Legislative District:** 14 **Congressional District:** 3 **TRS:** 3N 9E 33

DETAIL

Status: No Further Action **NFA Received?** Yes **Is PSI site?** No
Statute: MTCA **NFA Date:** 12/4/2013 **Current VCP?** No **Past VCP?** No
Site Rank: N/A **NFA Reason:** Initial Investigation **Brownfield?** No
Site Manager: Wecker, Kirsten **Responsible Unit:** Southwest **Active Institutional Control?** No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
BNSF RR / SR 14 @ MP 54.5	Upland	No Further Action Required	SW	Wecker, Kirsten	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum-Diesel	RB					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Site Discovery/Release Report Received	Completed		2/7/2013
Initial Investigation / Federal Preliminary Assessment	Completed		12/4/2013
Site Status Changed to NFA	Completed		12/4/2013

Cleanup Site Details

Cleanup Site ID: 13024

Cleanup Site ID: 13024 Facility/Site ID: 13691 UST ID: 620291 [Site Page](#) [Site Documents](#) [View Map](#)
 Cleanup Site Name: Steamboat Landing Marina [Glossary](#)
 Alternate Names: Steamboat Landing Marina

LOCATION

Address: 3710 SE 139TH AVE City: VANCOUVER Zip Code: 98683 County: Clark
 Latitude: 45.59349 Longitude: -122.53081 WRIA: 28 Legislative District: 17 Congressional District: 3 TRS: 1N 2E 37

DETAIL

Status: No Further Action NFA Received? Yes Is PSI site? No
 Statute: MTCA NFA Date: 12/12/2017 Current VCP? No Past VCP? Yes
 Site Rank: N/A NFA Reason: Voluntary Cleanup Program Review Brownfield? No
 Site Manager: Fiedler, Aaren Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
Steamboat Landing Marina	Upland	No Further Action Required	SW	Fiedler, Aaren	Standard Voluntary Cleanup

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Benzene	RB	B	B			
Lead	B	B	B			
Methyl tertiary-butyl ether	B	B	B			
Non-Halogenated Solvents	RB	B	B			
Petroleum-Diesel	B	B	B			
Petroleum-Gasoline	RB	B	B			
Petroleum-Other	B	B	B			

Key:
 B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
 S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Site Discovery/Release Report Received	Completed		4/11/2016
LUST - Report Received	Completed		4/11/2016
Initial Investigation / Federal Preliminary Assessment	Completed		4/12/2016
LUST - Notification	Completed		4/12/2016

Cleanup Site Details

Cleanup Site ID: 13024

SITE ACTIVITIES			
Activity	Status	Start Date	End Date/ Completion Date
Early Notice Letter(s)	Completed		4/19/2016
VCP Receipt of Plan or Report	Completed		4/19/2016
LUST - Site Assessment Report	Completed		4/19/2016
VCP Opinion on Site Cleanup	Completed	4/19/2016	7/18/2016
LUST - Site Assessment Report	Completed		12/5/2016
VCP Opinion on Site Cleanup Plan	Completed	10/13/2017	12/12/2017
LUST - Site Assessment Report	Completed		10/16/2017
Site Status Changed to NFA	Completed		12/12/2017

Cleanup Site Details

Cleanup Site ID: 13035

Cleanup Site ID: 13035 Facility/Site ID: 12126843 UST ID: 10252 [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: Hannah Motor Company [Glossary](#)

Alternate Names: Hannah Mitsubishi, HANNAH MOTOR COMPANY, Vancouver Mitsubishi

LOCATION

Address: 300 WASHINGTON ST City: VANCOUVER Zip Code: 98668 County: Clark
Latitude: 45.62332 Longitude: -122.67312 WRIA: 28 Legislative District: 49 Congressional District: 3 TRS: 2N 1E 51

DETAIL

Status: Cleanup Started NFA Received? No Is PSI site? No
Statute: MTCA NFA Date: N/A Current VCP? No Past VCP? No
Site Rank: N/A NFA Reason: N/A Brownfield? No
Site Manager: Kasperski, Joseph Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
Hannah Motor Company	Upland	Cleanup Started	SW	Kasperski, Joseph	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Lead	B					
Petroleum-Diesel	C					
Petroleum-Other	C					
Polychlorinated biPhenyls (PCB)	B					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Site Discovery/Release Report Received	Completed		11/25/2015
Initial Investigation / Federal Preliminary Assessment	Completed		12/24/2015
Early Notice Letter(s)	Completed		12/24/2015
LUST - Notification	Completed		12/24/2015
LUST - Report Received	Completed		12/24/2015

Cleanup Site Details

Cleanup Site ID: 13158

Cleanup Site ID: 13158 Facility/Site ID: 17727 UST ID: 620288 [Site Page](#) [Site Documents](#) [View Map](#)
 Cleanup Site Name: Curl Property [Glossary](#)
 Alternate Names: Curl Property

LOCATION

Address: 608 Hwy 14 City: Lyle Zip Code: 98635 County: Klickitat
 Latitude: 45.69282 Longitude: -121.28334 WRIA: 30 Legislative District: 14 Congressional District: 3 TRS: 2N 12E 3

DETAIL

Status: No Further Action NFA Received? Yes Is PSI site? No
 Statute: MTCA NFA Date: 11/23/2016 Current VCP? No Past VCP? No
 Site Rank: N/A NFA Reason: Initial Investigation Brownfield? No
 Site Manager: Rodriguez, Krystal Responsible Unit: Central Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
Curl Property	Upland	No Further Action Required	CE	Rodriguez, Krystal	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum-Gasoline	RB					

Key:
 B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
 S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Site Discovery/Release Report Received	Completed		6/14/2016
Initial Investigation / Federal Preliminary Assessment	Completed		11/23/2016
Site Status Changed to NFA	Completed		11/23/2016

Cleanup Site Details

Cleanup Site ID: 14522

Cleanup Site ID: 14522 Facility/Site ID: 76031 UST ID: N/A [Site Page](#) [Site Documents](#) [View Map](#)
 Cleanup Site Name: Elwood Residence UST [Glossary](#)
 Alternate Names: Elwood Residence UST

LOCATION

Address: 61 JACKSON RD City: BINGEN Zip Code: 98605 County: Skamania
 Latitude: 45.71139 Longitude: -121.65726 WRIA: 29 Legislative District: 14 Congressional District: 3 TRS: 3N 9E 34

DETAIL

Status: No Further Action NFA Received? Yes Is PSI site? No
 Statute: MTCA NFA Date: 5/22/2017 Current VCP? No Past VCP? No
 Site Rank: N/A NFA Reason: Initial Investigation Brownfield? No
 Site Manager: Southwest Region Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
Elwood Residence UST Upland	Upland	No Further Action Required	SW	Southwest Region	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Benzene	B					
Lead	B					
Other Non-Halogenated Organics	B					
Petroleum-Gasoline	RB					

Key:
 B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
 S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Site Discovery/Release Report Received	Completed		5/19/2017
Initial Investigation / Federal Preliminary Assessment	Completed		5/22/2017
Site Status Changed to NFA	Completed		5/22/2017

Cleanup Site Details

Cleanup Site ID: 14952

Cleanup Site ID: 14952 **Facility/Site ID:** 94380 **UST ID:** N/A [Site Page](#) [Site Documents](#) [View Map](#)
Cleanup Site Name: Vancouver King Street Substation [Glossary](#)
Alternate Names: Vancouver King Street Substation

LOCATION

Address: 704 KING ST **City:** VANCOUVER **Zip Code:** 98660 **County:** Clark
Latitude: 45.62704 **Longitude:** -122.68309 **WRIA:** 28 **Legislative District:** 49 **Congressional District:** 3 **TRS:** 2N 1E 51

DETAIL

Status: Awaiting Cleanup **NFA Received?** No **Is PSI site?** No
Statute: MTCA **NFA Date:** N/A **Current VCP?** No **Past VCP?** No
Site Rank: N/A **NFA Reason:** N/A **Brownfield?** No
Site Manager: Southwest Region **Responsible Unit:** Southwest **Active Institutional Control?** No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
Vancouver King Street Substation	Upland	Awaiting Cleanup	SW	Southwest Region	No Process

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum-Diesel	C	S				
Polycyclic Aromatic Hydrocarbons	C	S				

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Site Discovery/Release Report Received	Completed		1/29/2019
Initial Investigation / Federal Preliminary Assessment	Completed		3/28/2019
Early Notice Letter(s)	Completed		5/2/2019

Cleanup Site Details

Cleanup Site ID: 15269

Cleanup Site ID: 15269 Facility/Site ID: 25699 UST ID: N/A [Site Page](#) [Site Documents](#) [View Map](#)

Cleanup Site Name: Hwy 14 MP 23 Burlington Environmental LLC [Glossary](#)

Alternate Names: Clean Earth Solvent Waste Truck Rollover, Hwy 14 MP 23 Burlington Environmental LLC

LOCATION

Address: MP 23 Hwy 14 City: Washougal Zip Code: 98671 County: Skamania

Latitude: 45.56597 Longitude: -122.21884 WRIA: 28 Legislative District: 14 Congressional District: 3 TRS:

DETAIL

Status: No Further Action NFA Received? Yes Is PSI site? No
Statute: MTCA NFA Date: 7/31/2023 Current VCP? No Past VCP? Yes
Site Rank: N/A NFA Reason: Voluntary Cleanup Program Review Brownfield? No
Site Manager: Fiedler, Aaren Responsible Unit: Southwest Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
Hwy 14 MP 23 Burlington Environmental LLC	Upland	No Further Action Required	SW	Fiedler, Aaren	Standard Voluntary Cleanup Program
Hwy 14 MP 23 Burlington Environmental LLC Sediments	Sediment	No Further Action Required	SW	Southwest Region	No Process

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
There are no current Institutional Controls in effect for this site.						

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Arsenic	B					
Lead	B		B			
Mercury	B					
Metals - Other	B		B			
Non-Halogenated Pesticides	B					
Other Non-Halogenated Organics	B		B	B		
Petroleum-Other	B		B			
Polycyclic Aromatic Hydrocarbons	B					

Key:
B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Site Discovery/Release Report Received	Completed		8/14/2020

Cleanup Site Details

Cleanup Site ID: 15269

SITE ACTIVITIES			
Activity	Status	Start Date	End Date/ Completion Date
VCP Receipt of Plan or Report	Completed		8/14/2020
Early Notice Letter(s)	Completed		9/23/2020
VCP Receipt of Plan or Report	Completed		12/7/2020
VCP Opinion on Property Cleanup	Completed	12/7/2020	8/10/2021
VCP Receipt of Plan or Report	Completed		5/13/2021
VCP Technical Assistance	Completed		9/21/2021
VCP Opinion on Remedial Investigation Work Plan	Completed	2/17/2022	6/29/2022
VCP Receipt of Plan or Report	Completed		3/14/2023
VCP Opinion on Remedial Investigation	Completed	3/17/2023	7/31/2023
Site Status Changed to NFA	Completed		7/31/2023

Cleanup Site Details

Cleanup Site ID: 16759

Cleanup Site ID: 16759	Facility/Site ID: 99998829	UST ID: N/A	Site Page	Site Documents	View Map
Cleanup Site Name: Hwy 14 MP 77 Truck Spill					Glossary
Alternate Names: Hwy 14 MP 77 Truck Spill					

LOCATION

Address: Hwy 14 Milepost 77			City: Lyle	Zip Code: 98635	County: Klickitat
Latitude: 45.68661	Longitude: -121.27158	WRIA: 30	Legislative District: 14	Congressional District: 3	TRS: 2N 12E 2

DETAIL

Status: No Further Action	NFA Received? Yes	Is PSI site? No
Statute: MTCA	NFA Date: 3/30/2022	Current VCP? No Past VCP? No
Site Rank: N/A	NFA Reason: Initial Investigation	Brownfield? No
Site Manager: Mefford, John	Responsible Unit: Central	Active Institutional Control? No

CLEANUP UNITS

Cleanup Unit Name	Unit Type	Unit Status	Resp Unit	Unit Manager	Current Process
Hwy 14 MP 77 Truck Spill	Upland	No Further Action Required	CE	Mefford, John	Independent Action

ACTIVE INSTITUTIONAL CONTROLS

Instrument Type	Restriction Media	Restrictions/Requirements	Date	Recording Number	Recording County	Tax Parcel
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There are no current Institutional Controls in effect for this site.

AFFECTED MEDIA & CONTAMINANTS

MEDIA						
Contaminant	Soil	Groundwater	Surface Water	Sediment	Air	Bedrock
Petroleum-Diesel	RB					

Key:
 B - Below Cleanup Level C - Confirmed Above Cleanup Level RA - Remediated-Above
 S - Suspected R - Remediated RB - Remediated-Below

SITE ACTIVITIES

Activity	Status	Start Date	End Date/ Completion Date
Site Discovery/Release Report Received	Completed		1/5/2022
Initial Investigation / Federal Preliminary Assessment	Completed		3/30/2022
Site Status Changed to NFA	Completed		3/30/2022

Attachment C

Sample Identification for Previous Sediment Evaluation Locations

Sample Identification for Previous Sediment Evaluation Locations

Map Page	Study Name	Location_ID	Latitude	Longitude
1	Port of Portland Berths 501 and 503 Sediment Characterization	POP_501U	45.64165	-122.77343
1		POP_501D	45.64370	-122.77073
1		POP_501M	45.64234	-122.77230
1		POP_501B	45.64218	-122.77188
1		POP_503M	45.63854	-122.77861
2	Columbia Business Center	COLBC16C1	45.61207	-122.64445
2		COLBC16C2	45.61198	-122.64280
2	JT Marine 2014 Columbia River Sediment Data	JTMarine2014_1	45.61204	-122.64419
2		JTMarine2014_2	45.61199	-122.64428
2		JTMarine2014_3	45.61219	-122.64512
2		JTMarine2014_4	45.61225	-122.64511
2		JTMarine2014_5	45.61228	-122.64504
2		JTMarine2014_6	45.61237	-122.64508
2	Oregon Slough Study	OSD-03	45.61719	-122.70885
2		OSD-06	45.61569	-122.70590
2		OSD-09	45.61333	-122.70109
2		OSD-11	45.61216	-122.69698
2		OSD-02	45.61104	-122.69325
2		OSD-01	45.60970	-122.68930
2		OSD-11Z	45.60980	-122.68925
2		OSD-09-Core	45.61104	-122.69321
2		OSD-10Er	45.61079	-122.69259
2		OSD-10Dr	45.61129	-122.69382
2		OSD-06-Core	45.61224	-122.69686
2		OSD-07&8Er	45.61202	-122.69627
2		OSD-07&8Dr	45.61246	-122.69744
2		OSD-04&5Er	45.61364	-122.70138
2		OSD-03-Core	45.61452	-122.70336
2		OSD-04&5Dr	45.61541	-122.70533
2		OSD-01Z	45.61720	-122.70886
2		OSD-02Dr	45.61598	-122.70641
2		OSD-02Z	45.61569	-122.70587
2		OSD-02Er	45.61541	-122.70533
2	Port of Vancouver Cadet/Swan, NuStar and Kinder Morgan	1026_PNK-RI	45.61870	-122.66314
2	Port of Vancouver Maintenance Dredging Sediment Sampling	POVANC15B1-C1	45.63122	-122.69641
2		POVANC15GT-C1	45.63055	-122.69557
2		POV_B1-3	45.63127	-122.69645
2		POV_B1-C1	45.63126	-122.69643
2		POV_GT-3	45.63054	-122.69544

Map Page	Study Name	Location ID	Latitude	Longitude
2	Vancouver Westside WTP Outfall Sediment Evaluation Study 2018	VWOSES18 D-1	45.63111	-122.69619
2		VWOSES18 D-2	45.63099	-122.69635
2		VWOSES18 O-2	45.63082	-122.69565
2		VWOSES18 I-1	45.63094	-122.69553
2		VWOSES18 I-2	45.63087	-122.69539
2		VWOSES18 O-1	45.63073	-122.69549
2		VWOSES18 O-3	45.63091	-122.69583
2		VWOSES18 U-1	45.63067	-122.69516
2		VWOSES18 U-2	45.63053	-122.69534
3	2019 Vancouver to the Dalles Federal Navigation Channel.	VTDFC19C1	45.60275	-122.58398
3	Columbia Business Center	COLBC16C4	45.61207	-122.63434
3		COLBC16C3	45.61161	-122.63901
3	Tidewater Cove Marina DY2016 maintenance dredging	TIDEC14-TWC-04	45.61215	-122.61335
3		TIDEC14-TWC-05	45.61221	-122.61298
3		TIDEC14-TWC-03	45.61211	-122.61364
3		TIDEC14-TWC-02	45.61125	-122.61472
3		TIDEC14-TWC-01	45.61094	-122.61494
3	Vancouver Marine Park WWTF Outfall Sediment Evaluation Study 2020	VMPOSES20 D-1	45.61018	-122.62037
3		VMPOSES20 D-2	45.60996	-122.62051
3		VMPOSES20 A-1	45.60993	-122.61943
3		VMPOSES20 A-2	45.60977	-122.61951
3		VMPOSES20 A-3	45.60989	-122.61920
3		VMPOSES20 A-4	45.60973	-122.61924
3		VMPOSES20 U-1	45.60995	-122.61888
3		VMPOSES20 U-2	45.60964	-122.61897
3	Vigor Industrial Entrance Channel, Columbia River	VGRCCR21VCC	45.61169	-122.62768
4	Sediment Monitoring at Georgia-Pacific (Camas) for NPDES Permit No. WA0000256	GPCAM17_OF1-1	45.56998	-122.41097
4		GPCAM17_OF1-2	45.56978	-122.41336
4		GPCAM17_OF1-3	45.56974	-122.41373
4		GPCAM17_OF1-4	45.56966	-122.41411
5	2019 Vancouver to the Dalles Federal Navigation Channel.	VTDFC19C2	45.54738	-122.32022
7	Highway 14 MP 23 Burlington Environmental	SW1726-CR2	45.56185	-122.21783
8	2019 Vancouver to the Dalles Federal Navigation Channel.	VTDFC19C3	45.58209	-122.11663

ATTACHMENT D: QA2 DATA REQUIREMENTS Chemical Variables; Organic Compounds and Metals

The following documentation is needed for organic compounds:

- A cover letter referencing or describing the procedure used and discussing any analytical problems
- Reconstructed ion chromatograms for GC/MS analyses for each sample
- Mass spectra of detected target compounds (GC/MS) for each sample and associated library spectra
- GC/ECD and/or GC/flame ionization detection chromatograms for each sample Raw data quantification reports for each sample
- A calibration data summary reporting calibration range used [and decafluorotriphenylphosphine (DFTPP) and bromofluorobenzene (BFB) spectra and quantification report for GC/MS analyses]
- Final dilution volumes, sample size, wet-to-dry ratios, and instrument detection limit
- Analyte concentrations with reporting units identified (to two significant figures unless otherwise justified)
- Quantification of all analytes in method blanks (ng/sample) Method blanks associated with each sample
- Recovery assessments and a replicate sample summary (laboratories should report all surrogate spike recovery data for each sample; a statement of the range of recoveries should be included in reports using these data)
- Data qualification codes and their definitions.

Metals

For metals, the data report package for analyses of each sample should include the following:

- Tabulated results in units as specified for each matrix in the analytical protocols, validated and signed in original by the laboratory manager
- Any data qualifications and explanation for any variance from the analytical protocols
- Results for all of the QA/QC checks initiated by the laboratory
- Tabulation of instrument and method detection limits.

All contract laboratories are required to submit metals results that are supported by sufficient backup data and quality assurance results to enable independent QA reviewers to conclusively determine the quality of the data. The laboratories should be able to supply legible photocopies of original data sheets with sufficient information to unequivocally identify:

- Calibration results
- Calibration and preparation blanks Samples and dilutions
- Duplicates and spikes
- Any anomalies in instrument performance or unusual instrumental adjustment

Memorandum for: U.S. Army Corps of Engineers - Portland District, Regulatory Branch (CENWP-ODG, Brock), Regulatory File No. NWP-2022-126-2, Cascade Renewable Transmission (CRT) Project.

Subject: Portland Sediment Evaluation Team (PSET) Level 2A dredged material suitability determination memorandum (SDM) for the CRT Project. The project is located in the Columbia River from river mile (RM) 105 to 190. The power cable starts in The Dalles, Wasco County, Oregon, downstream through the Columbia River Gorge (in various Oregon and Washington counties) and terminating in Portland, Multnomah County, Oregon.

Introduction: Per the 2018 *Sediment Evaluation Framework for the Pacific Northwest* (SEF)¹, this SDM documents the consensus of the PSET agencies regarding the suitability of the dredge prisms (DP) and post-dredge surfaces (PDS) for unconfined, aquatic placement and unconfined, aquatic exposure, respectively. The PSET reviewed the *Sediment Characterization Report, Cascade Renewable Transmission Project, Columbia River Miles 105 to 190* (SCR)² prepared for Cascade Renewable Transmission, LLC and HDR Engineering, Inc. by ANAMAR Environmental Consulting, Inc., dated April 2025. Sediment physical, conventional, and chemistry testing results are summarized in the SCR; the chemical analytical results were compared to the freshwater benthic toxicity screening levels (SEF SLs) published in the 2018 SEF. The PSET used Oregon Department of Environmental Quality's (ODEQ's) sediment screening level value (SLV) for freshwater fish to evaluate bioaccumulation of total PCB Aroclors³.

PSET Suitability Summary:

Dredge Prism (DP):

☒ Suitable ☐ Unsuitable

Post-dredge Surface (PDS):

☒ Suitable ☐ Unsuitable

SEF Special Condition Categories:

- ☒ **Data Recency Expiration – Very Low** rank; Contact PSET approximately 9 months prior to **November 30, 2034** to determine the need to re-characterize these project sediments.
- ☒ About **30 days prior** to dredging, submit a concise **dredging and disposal quality control plan** consistent with this SDM, U.S. Army Corps of Engineers (USACE) Regulatory permit, Endangered Species Act (ESA) Section 7 consultations, and the

¹ U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, Washington Department of Ecology, Washington Department of Natural Resources, Oregon Department of Environmental Quality, Idaho Department of Environmental Quality, National Marine Fisheries Service, and U.S. Fish and Wildlife Service. 2018. *Sediment Evaluation Framework for the Pacific Northwest*. Published May 2018, by the U.S. Army Corps of Engineers, Northwestern Division, 183 pp with Appendices.

² ANAMAR. 2025. *Sediment Characterization Report, Cascade Renewable Transmission Project*. Dated April 2025. 35 pp with Maps, Tables, and Appendices.

³ Oregon Department of Environmental Quality. 2007. *Guidance for Assessing Bioaccumulative Chemicals of Concern in Sediment*. Updated April 3, 2007 by ODEQ Environmental Cleanup Program, 18 pp with Appendices.

401 certifications from Oregon Department of Environmental Quality (ODEQ) and the Washington Department of Ecology (Ecology), to the PSET, the USACE Regulatory PM, ODEQ, and Ecology for **approval prior to dredging**.

- ☒ **Pre-dredge conference call** with PSET, ODEQ, Ecology, and the Regulatory PM is required approximately **14 days prior to dredging**. The dredging and disposal quality control plan must be submitted to the agencies approximately **14 days prior to the pre-dredge meeting**. Dredging, positioning, transport, daily reports, pre-dredge hydrographic surveys, photographs, BMPs and disposal need to be addressed with sufficient detail to provide assurance to the agencies that the dredging and disposal work will be properly implemented.
- ☒ Submit a **post-dredge and disposal report** with figures to PSET, ODEQ, Ecology, and the USACE Regulatory PM approximately **60 days after dredging/disposal** each time dredging occurs (dates, locations, volumes, acreages, dredge depths, photographs, debris and biological observations, disposal site, and pre-dredge and post-dredge bathymetric surveys of the dredge area)

*** The PSET requests the Regulatory PM provide electronic copies of the USACE permit (NWP-2022-126-2) and associated 401 water quality certifications for our files ***

Reviewers: The PSET agencies include the USACE, U.S. Environmental Protection Agency – Region 10 (EPA), National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife (USFWS), Ecology, and ODEQ. The sediment evaluation review timeline appears in Table 1, below. The reviewers for this project included:

- ☒ James Holm (USACE, PSET Lead) ☒ Bridgette Lohrman (EPA, PSET Co-Lead)
- ☒ Dominic Yballe (USACE) ☒ Pete Anderson (ODEQ) ☒ Tom Hausmann (NMFS)
- ☒ Laura Inouye (Ecology) ☒ Robin Van Meter (USFWS) ☒ Clayton Olinger (USACE)

Table 1. Review Timeline

Pre-Sampling and Analysis Plan (SAP) call between Taylor Engineering and PSET	May 24, 2023
Draft SAP received by PSET	September 27, 2023
Revised draft SAP received by PSET	October 2, 2023
PSET requested revised draft SAP edits	October 13, 2023
Revised SAP received by PSET	December 18, 2023
PSET requested revised SAP edits	January 4, 2024
Final SAP ⁴ received by PSET	January 9, 2024
Final SAP approval ⁵ issued by PSET	January 17, 2024
SAP Addendum received by PSET ⁶	September 18, 2024

⁴ Taylor Engineering. 2024. *Cascade Renewable Transmission Project, Columbia River Miles 105 to 190, Oregon and Washington, Sediment Sampling and Analysis Plan*. January 2024, 26 pp with Maps and Attachments.

⁵ PSET. 2024. *PSET Review: CRTS NWP-2022-126 SAP Approval*. E-mail sent by James Holm (PSET Lead, USACE) January 17, 2024. 3 pp plus attachment.

⁶ Taylor Engineering. 2024. *Cascade Renewable Transmission Project, Columbia River Miles 105 to 190, Oregon and Washington, Sediment Sampling and Analysis Plan Revised September 2024*. September 2024. 27 pp with Maps and Attachments.

SAP Addendum approval issued by PSET ⁷	October 4, 2024
Pre-sampling conference call	October 30, 2024
Sampling date(s)	November 12 to 21, 2024
Draft SCR received by PSET	February 24, 2025
PSET requested draft SCR edits	March 27, 2025
Revised SCR received	April 10, 2025
SDM submitted to Regulatory PM for review	July 3, 2025
Project management area ranking(s)	Very Low
Data recency determination*	Very Low: 10 years, expires November 30, 2034

* If site conditions or the proposed project change, or if new information related contaminants of concerns is discovered, additional coordination with PSET is required to re-verify SDM.

Federal Regulatory Authorities:

- ☒ Section 10, Rivers and Harbors Act
- ☒ Section 404, Clean Water Act (CWA)
- ☒ Section 401, CWA
- ☒ Section 7, Endangered Species Act
- ☒ Section 305, Magnuson-Stevens Fishery Conservation and Management Act
- ☒ Fish and Wildlife Coordination Act
- ☐ Section 103, Marine Protection, Research and Sanctuaries Act
- ☐ Comprehensive Environmental Response, Compensation, and Liability Act

Project Description: Table 2 summarizes the CRT dredging project details. The project would address the need for long-term available transfer capacity across the Cascade Range. The approximate 100-mile high-voltage direct current 1,100-megawatt transmission line would connect the Big Eddy substation located in The Dalles, Oregon to the Harborton substation in Portland, Oregon. Approximately 80 miles of the transmission line would be buried below the riverbed of the Columbia River. Actual core and grab sampling locations appear in SCR overview figure (SDM Figure 1).

Table 2. Project Details

Project Location	The Dalles, OR to Portland, OR
Waterbody / RM	Columbia River / RM 105 to 190
Total dredging volume (CY)	~318,500: ~306,000 (hydroplow), ~8,000 (cofferdams), 4,500 (trench)
Max. dredging depth (ft. CRD)	7' below authorized channel depth
Dredging method	Open trench excavator / clamshell, hydroplow, horizontal directional drilling
Dredged material transport	Same as dredge method
Proposed disposal location(s)	In place and downstream side-cast
Proposed dredging date(s)	In-water work window

Site History: See SAPA Section 1.5. In 2019, the USACE sampled the Vancouver to The Dalles (VTD) Federal Navigation Channel (FNC) from RM 106 to 192.5. The PSET

⁷ PSET. 2024. *PSET Review: CRTS NWP-2022-126 SAP Addendum Approval*. E-mail sent by James Holm (PSET Lead, USACE) October 4, 2024. 5 pp plus attachment.

confirmed the “very low” management area rank for VTD FNC. The suitability for the VTD FNC expires in January 2029.

Sampling and Analysis Plan Description: The CRT Project’s sampling and analytical approach is summarized in Tables 3a (vibracore samples) and 3b (grab samples) per the 2018 SEF.

Table 3a. Sampling and Analysis Description – Vibracore Samples

Sample collection method		Vibracore Sampler					
Station ID		CRT24-VC1	CRT24-VC2	CRT24-VC3	CRT24-VC4	CRT24-VC5	CRT24-VC6
Project Rank		Very Low					
DP sample ID		CRT24-VC1 *	CRT24-VC2 *	NS**	CRT24-VC4 °^	CRT24-VC5 °^	CRT24-VC6 °
PDS sample ID		CRT24-VC1Z **	CRT24-VC2Z **		CRT24-VC4Z **	CRT24-VC5Z **	CRT24-VC6Z **
Dredge Prism	Depth range (ft datum)	-29 to -39 (CRD)	-22 to -34 (CRD)		-60 to -70 (BPE)	-60 to -70 (BPE)	-20 to -30 (BPE)
	Composite (Y/N)	N	N		N	N	N
	Subsamples / DMMU	1	1		1	1	1
	SS Archive (Y/N)	Y	Y		Y	Y	Y
PDS Layer	Depth range (ft datum)	-39 to -41 (CRD)	-36 to -38 (CRD)		-70 to -72 (BPE)	-70 to -72 (BPE)	-30 to -32 (BPE)
	Composite (Y/N)	NS**	NS**		NS**	NS**	NS**
	Subsamples/PDS-layer						
	Archive (Y/N)						
Sediment Physical and Chemical Analysis (No. DP / No. PDS)							
Grain size		1 / 1**	1 / 1**	NS**	1 / 1**	1 / 1**	1 / 1**
Total organic carbon		1 / 1**	1 / 1**		1 / 1**	1 / 1**	1 / 1**
Total solids		1 / 1**	1 / 1**		1 / 1**	1 / 1**	1 / 1**
Metals, freshwater + mercury		- / -	- / -		1 / 1**	1 / 1**	- / -
PAHs		- / -	- / -		1 / 1**	1 / 1**	- / -
SVOCs (phthalates, phenols, misc. extractables)		- / -	- / -		1 / 1**	1 / 1**	- / -
Pesticides		- / -	- / -		1 / 1**	1 / 1**	- / -
Polychlorinated biphenyls (Total PCB Aroclors)		- / -	- / -		1 / 1**	1 / 1**	- / -
Butyltins		- / -	- / -		1 / 1**	1 / 1**	- / -
TPH (dx, rx)		- / -	- / -		1 / 1**	1 / 1**	- / -
Biological Testing Description (No. DP / No. PDS)							
Biological Testing, freshwater		- / -	- / -	- / -	- / -	- / -	- / -

* = Grab samples collected due to refusal during coring attempts; ** = No sample collected due to poor recovery and/or refusal; ° = partial vibracore sample recovered and used for analyses; NS = No Sample collected; ^ = Sediment chemistry testing triggered due to <80% sand and gravel combined; CRD = Columbia River Datum; BPE = Bonneville Pool Elevation (+73.3 feet above NAVD88).

Table 3b. Sampling and Analysis Description – Grab Samples

Sample collection method		PONAR Grab Sampler																			
Station ID (DP Sample ID)		CRT24-G1	CRT24-G2	CRT24-G3	CRT24-G4	CRT24-G5^A	CRT24-G6	CRT24-G7	CRT24-G8	CRT24-G9	CRT24-G10	CRT24-G11	CRT24-G12	CRT24-G13	CRT24-G14	CRT24-G15	CRT24-G16	CRT24-G17	CRT24-G18	CRT24-G19	CRT24-G20
Project Rank		Very Low																			
Dredge Prism	Depth range (ft datum)	-17 CRD	-30 CRD	-20 CRD	-26 CRD	-36 CRD	-38 CRD	-30 CRD	-38 CRD	-26 CRD	-16 CRD	-44 CRD	-48 BPE	-56 BPE	-34 BPE	-44 BPE	-25 BPE	-38 BPE	-40 BPE	-24 BPE	-95 BPE
	Composite (Y/N)	N	N	N	N	N	NS	N	N	N	N	NS	N	N	N	N	N	N	N	N	NS
	Subsamples/Station	1	1	1	1	1		1	1	1	1		1	1	1	1	1	1	1		
	SS Archive (Y/N)	Y	Y	Y	Y	Y		Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	
PDS Layer	Depth range (ft datum)	N/A	N/A	N/A	N/A	N/A		NS	N/A	N/A	N/A		N/A	NS	N/A	N/A	N/A	N/A	N/A	N/A	
	Composite (Y/N)																				
	Subsamples/PDS-layer																				
	Archive (Y/N)																				
Sediment Physical and Chemical Analysis (No. DP / No. PDS)																					
Grain size		1 / -	1 / -	1 / -	1 / -	1 / -	NS	1 / -	1 / -	1 / -	1 / -	NS	1 / -	1 / -	1 / -	1 / -	1 / -	1 / -	1 / -	1 / -	NS
Total organic carbon		1 / -	1 / -	1 / -	1 / -	1 / -		1 / -	1 / -	1 / -	1 / -		1 / -	1 / -	1 / -	1 / -	1 / -	1 / -	1 / -	1 / -	
Total solids		1 / -	1 / -	1 / -	1 / -	1 / -		1 / -	1 / -	1 / -	1 / -		1 / -	1 / -	1 / -	1 / -	1 / -	1 / -	1 / -	1 / -	
Metals, freshwater + mercury		- / -	- / -	- / -	- / -	1 / -		- / -	- / -	- / -	- / -		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
PAHs		- / -	- / -	- / -	- / -	1 / -		- / -	- / -	- / -	- / -		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
SVOCs (phthalates, phenols, misc. extractables)		- / -	- / -	- / -	- / -	1 / -		- / -	- / -	- / -	- / -		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Pesticides		- / -	- / -	- / -	- / -	1 / -		- / -	- / -	- / -	- / -		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Polychlorinated biphenyls (Total PCB Aroclors)		- / -	- / -	- / -	- / -	1 / -		- / -	- / -	- / -	- / -		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Butyltins		- / -	- / -	- / -	- / -	1 / -		- / -	- / -	- / -	- / -		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
TPH (dx, rx)		- / -	- / -	- / -	- / -	1 / -		- / -	- / -	- / -	- / -		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Biological Testing Description (No. DP / No. PDS)																					
Biological Testing, freshwater		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

NS = No sample collected due to poor recovery and/or refusal; ^ = Sediment chemistry testing triggered due to <80% sand and gravel combined; CRD = Columbia River Datum; BPE = Bonneville Pool Elevation (+73.3 feet above NAVD88); N/A = not applicable.

Deviations from the approved SAP/SAPA: Seven (7) SAP/SAPA deviations occurred as listed in SCR Section 3.1 or noted by PSET. SAP/SAPA deviations were coordinated with the PSET Lead prior to sampling or from the field.

1. During field sampling at stations CRT24-VC1, and CRT24-VC2, little to no penetration during three core attempts. The PSET Lead was contacted from the field and provided verbal approval to collect grab samples instead of cores. Only dredge prism samples were collected, as no Z-layer was encountered with the grab sampler.
2. Based on field conditions and little to no core penetration at station CRT24-VC3, a Ponar sampler was deployed. Several grab sample attempts were made with the Ponar at the target location. No sediment, gravel or rocks were collected. No samples were collected from the dredge prism or Z-layer at this station. Copies of the sample collection log for CRT24-VC3 are included in SCR Appendix B.
3. During vibracore sample collection at stations CRT24-VC4, CRT24-VC5, and CRT24-VC6, refusal was encountered prior to reaching full penetration length. Dredge prism samples were collected, however, collection of a Z-layer sample was not possible due to refusal.
4. During grab sample collection at station CRT24-G6, three attempts were made to collect a sample. Despite the sampler closing completely, no rock or sediment was collected. The field team contacted the PSET lead from the field and verbal approval was given to move the sample location, as long as it remained in the FNC. A near-miss incident occurred on the attempt following relocation of the station. The sampler got caught and the swift current moved the vessel downstream. The sampler line became taught causing the stern to become submerged in the water. The sampling line was cut, and no sample was collected at this station.
5. During several grab sample collection attempts at station CRT24-G11, no sediment was encountered and only rocks were collected.
6. During grab sample collection at station CRT24-G12, wind and wave conditions made it such that the crew was unable to process the sample on the vessel. The sample was retained in a stainless-steel pan and transported to the dock for processing upon return. The field team did not collect a photograph of the samples collected prior to containerizing the sediment in laboratory approved containers.
7. After three unsuccessful grab attempts at station CRT24-G20, rocks and bivalves (*Corbicula fluminea*). No sediment samples were collected for laboratory analysis.

Results and Discussion: Tables 4a (vibracore samples) and 4b (grab samples) below, summarize the physical and chemical test results for the discrete dredge prism (DP) samples. No post-dredge surface (PDS, Z-layer) samples were collected from the

vibracore sampler due to refusal and poor recovery. The PSET relies upon the DP suitability to assess the suitability of the PDS. Chemical testing was triggered on samples CRT24-VC4, CRT24-VC5, and CRT24-G5 because sand and gravel fractions totaled less than 80%. Analytical results were compared to the 2018 SEF freshwater screening levels (SLs) and ODEQ's freshwater, fish-based SLV for total PCB Aroclors.

Except for CRT24 stations VC4, VC5, and G5, grain size in the dredge prism samples were mostly sand (72 to 98%) and gravel (<1 to 24%) with trace silt and clay (2 to 7%). The TOC ranged from 0.05% (U) to 0.18%. No chemical testing is required for samples with >80% sand/gravel and with TOC <0.5%.

For stations VC4, VC5, and G5, grain size was 23 to 75% sand/gravel and 25 to 77% silt/clay. The TOC ranged from 0.05% (U) to 0.74%. The DP samples have chemical concentrations below SEF freshwater SLs and ODEQ's SLV for total PCB Aroclors). Therefore, the dredge prisms are suitable for unconfined, aquatic placement without additional testing.

PSET Suitability Determination:

Dredge Prism – There were no detections or non-detection (U) exceedances of analytes with freshwater SEF screening levels (SLs) or ODEQ's SLV for total PCB Aroclors in the discrete samples. As such, the **dredge prism material** is **suitable** for **unconfined, aquatic placement** per the SEF guidance without further testing.

Post-Dredge Surface – Based on the "Very Low" management area rank and suitability of the overlying dredge prism sediments, the PSET infers the **post-dredge surfaces** are **suitable** for **unconfined, aquatic exposure** per the SEF guidance without further testing

Contact: This memorandum was prepared by James Holm (PSET Lead, Corps) and reviewed by the participating PSET agency staff identified above.

Questions regarding the PSET suitability determination should be directed to James Holm at (503) 808-4963 or e-mail to: James.A.Holm@usace.army.mil.

Table 4a. Sediment Analytical Summary – Vibracore, Dredge Prism

DP Sample ID: Parameter	CRT24-VC1	CRT24-VC2	CRT24-VC3*	CRT24-VC4	CRT24-VC5	CRT24-VC6	SEF FW SL1 (SLV)
Grain size – gravel, sand, silt, clay (%)	1.9, 94.6, 0.8, 2.7	3.8, 93.8, 0.1, 2.4		2.2, 45.7, 42.3, 9.6	0.2, 22.7, 59.8, 17.2	9.9, 85.1, 2.5, 2.6	--
Total Solids (%)	72.8	80.8		64.8	67.5	80.6	--
Total Organic Carbon (%)	0.05 U	0.05 U		0.74	0.52	0.16	--
Metals (mg/kg)	-	-		Detect J <SLs	Detect J <SLs	-	Varies
Total PAHs (ug/kg)	-	-		39.9 U	40.0 U	-	17,000
SVOCs (ug/kg)	-	-		Non-detect U, detect <SLs	Non-detect U, detect J <SLs	-	Varies
Pesticides (ug/kg)	-	-		Non-detect U <SLs	Non-detect U <SLs	-	Varies
Sum DDD	-	-		1.0 U	1.0 U	-	310
Sum DDE	-	-		1.0 U	1.0 U	-	21
Sum DDT	-	-		1.0 U	1.0 U	-	100
Total PCB Aroclors (ug/kg)	-	-		4.0 U	4.0 U	-	110 (22†)
Butyltins (ug/kg)	-	-		Non-detect U <SLs	Non-detect U <SLs	-	Varies
TPH dx / rx (ug/kg)	-	-		7.1 U / 14.2 U	7.3 U / 14.7 U	-	340 / 3,600

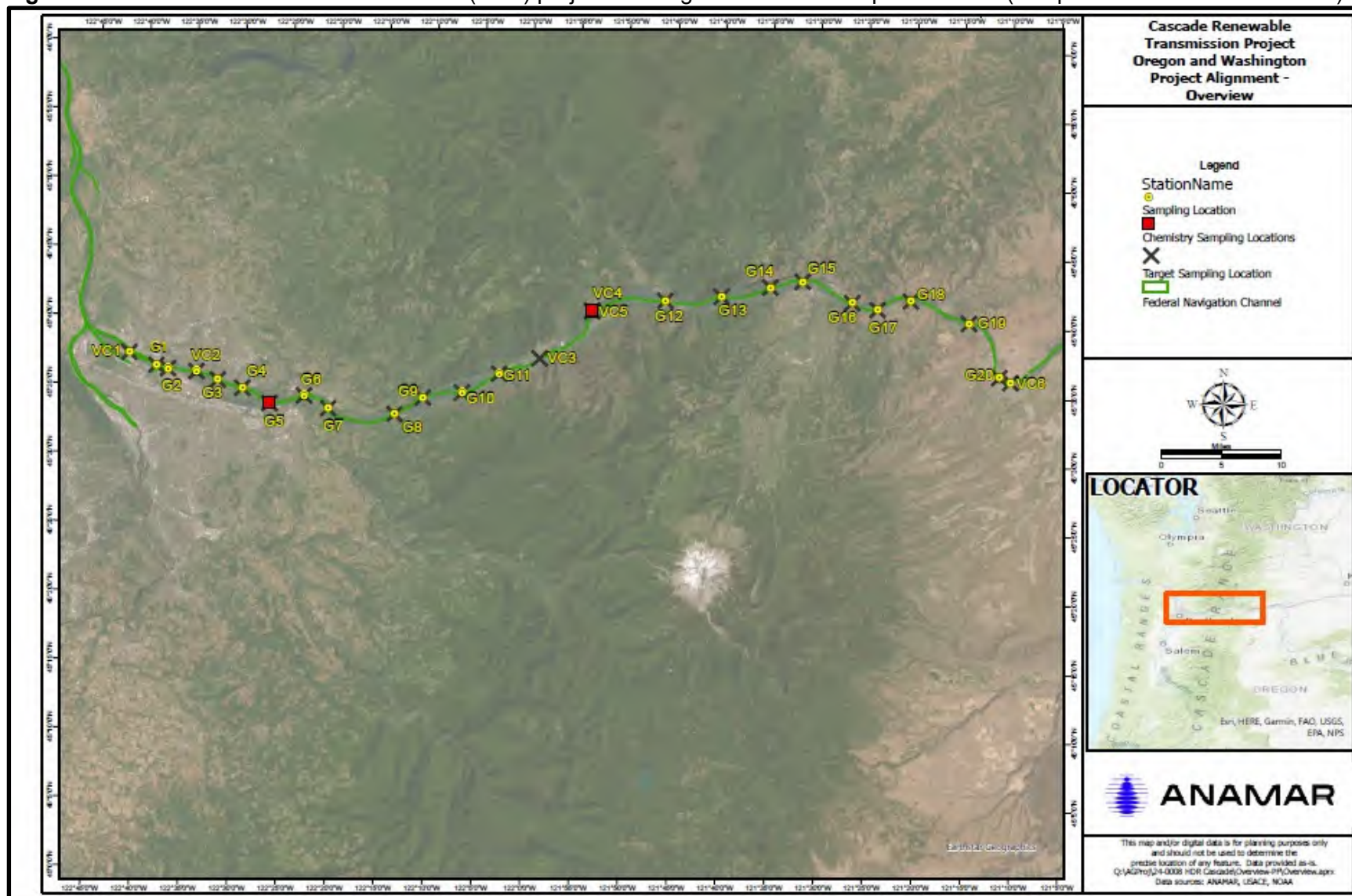
U = analyte not detected at or above the method reporting limit (MRL) or the method detection limit (MDL), MRL reported; J = estimated concentration between the MDL and the MRL; † = ODEQ (2007) freshwater, fish-based bioaccumulative screening level value (SLV); * = No sample collected due to poor recovery and/or rock refusal.

Table 4b. Sediment Analytical Summary – Grabs, Dredge Prism

DP Sample ID: Parameter	CRT24-G1	CRT24-G2	CRT24-G3	CRT24-G4	CRT24-G5	CRT2 4-G6	CRT24-G7	CRT24-G8	CRT24-G9	CRT24-G10	CRT2 4-G11	CRT24-G12	CRT24-G13	CRT24-G14	CRT24-G15	CRT24-G16	CRT24-G17	CRT24-G18	CRT24-G19	CRT2 4-G20	SEF FW SL1 (SLV)
Grain size – gravel, sand, silt, clay (%)	23.9, 72.6, 0.7, 2.7	15.2, 82.0, 0.3, 2.4	3.5, 93.6, 0.3, 2.5	0.2, 97.1, 0.0, 2.7	0.9, 74.6, 23.2, 1.4	NS	1.2, 95.1, 2.4, 1.4	7.2, 89.8, 1.6, 1.3	1.7, 96.4, 0.5, 1.3	0.1, 98.5, 0.1, 1.3	NS	0.2, 94.2, 4.4, 1.3	0.2, 97.5, 1.1, 1.3	0.3, 97.2, 0.7, 1.9	0.0, 97.0, 0.9, 1.9	0.0, 97.0, 1.2, 1.9	0.2, 92.9, 5.1, 2.0	0.4, 96.7, 1.0, 1.9	0.1, 97.8, 0.8, 1.3	NS	--
Total Solids (%)	73.8	81.8	79.1	72.3	70.8		71.8	77.5	77.2	77.2		77.2	79.4	78.2	78.0	77.6	76.7	78.1	77.8		--
Total Organic Carbon (%)	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U		0.05 U	0.06	0.05 U	0.05 U		0.12	0.05 U	0.05 U	0.05 U	0.07	0.18	0.05 U	0.05 U		--
Metals (mg/kg)	-	-	-	-	Non-detect U, detect J <SLs		-	-	-	-		-	-	-	-	-	-	-	-		Varies
Total PAHs (ug/kg)	-	-	-	-	39.9 U		-	-	-	-		-	-	-	-	-	-	-	-		17,000
SVOCs (ug/kg)	-	-	-	-	Non-detect U <SLs		-	-	-	-		-	-	-	-	-	-	-	-		Varies
Pesticides (ug/kg)	-	-	-	-	Non-detect U <SLs		-	-	-	-		-	-	-	-	-	-	-	-		Varies
Sum DDD	-	-	-	-	1.0 U		-	-	-	-		-	-	-	-	-	-	-	-		310
Sum DDE	-	-	-	-	1.0 U		-	-	-	-		-	-	-	-	-	-	-	-		21
Sum DDT	-	-	-	-	1.0 U		-	-	-	-		-	-	-	-	-	-	-	-		100
Total PCB Aroclors (ug/kg)	-	-	-	-	4.0 U		-	-	-	-		-	-	-	-	-	-	-	-		110 (22†)
Butyltins (ug/kg)	-	-	-	-	Non-detect U <SLs		-	-	-	-		-	-	-	-	-	-	-	-		Varies
TPH dx / rx (ug/kg)	-	-	-	-	251 / 1,470		-	-	-	-		-	-	-	-	-	-	-	-		340 / 3,600

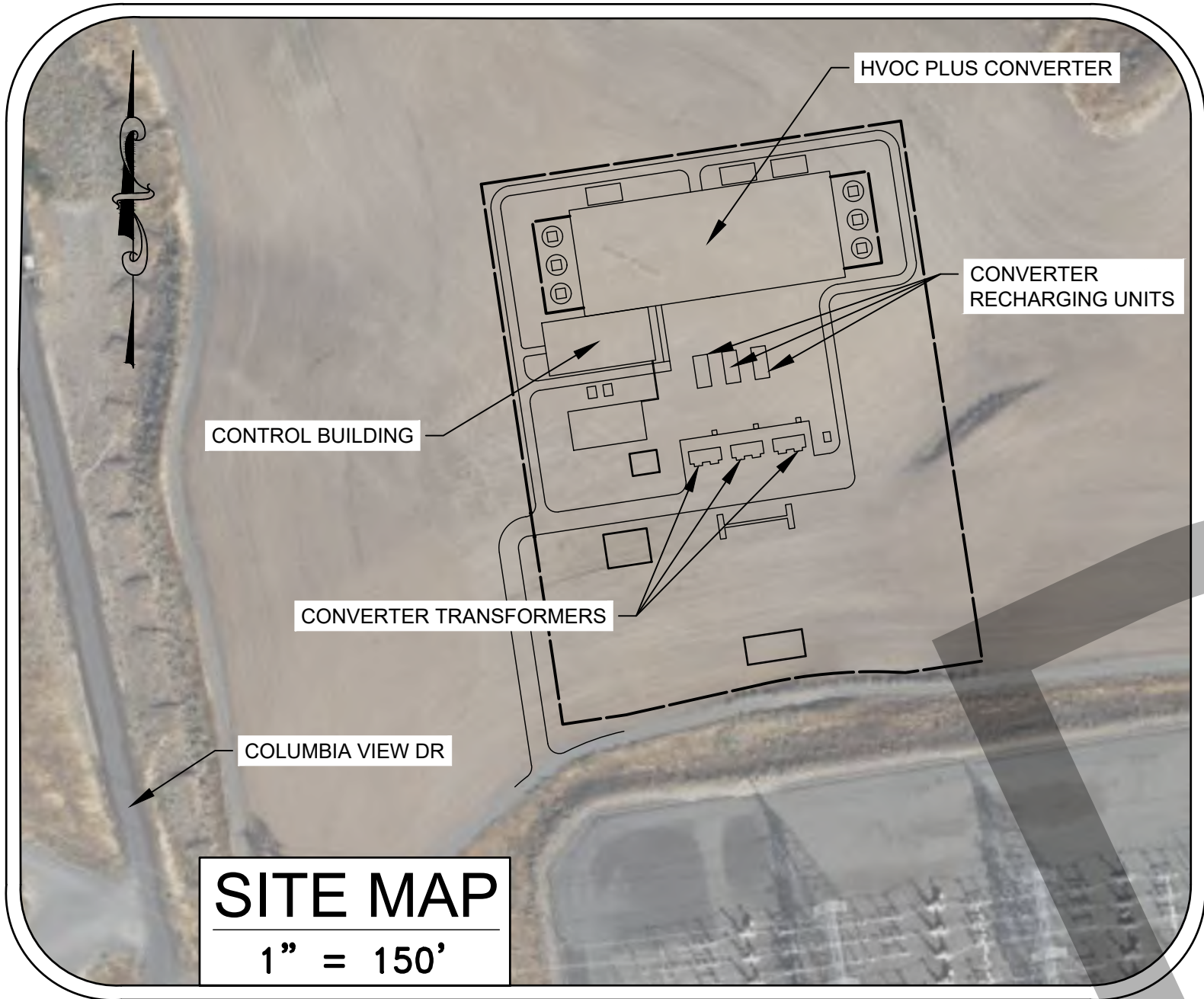
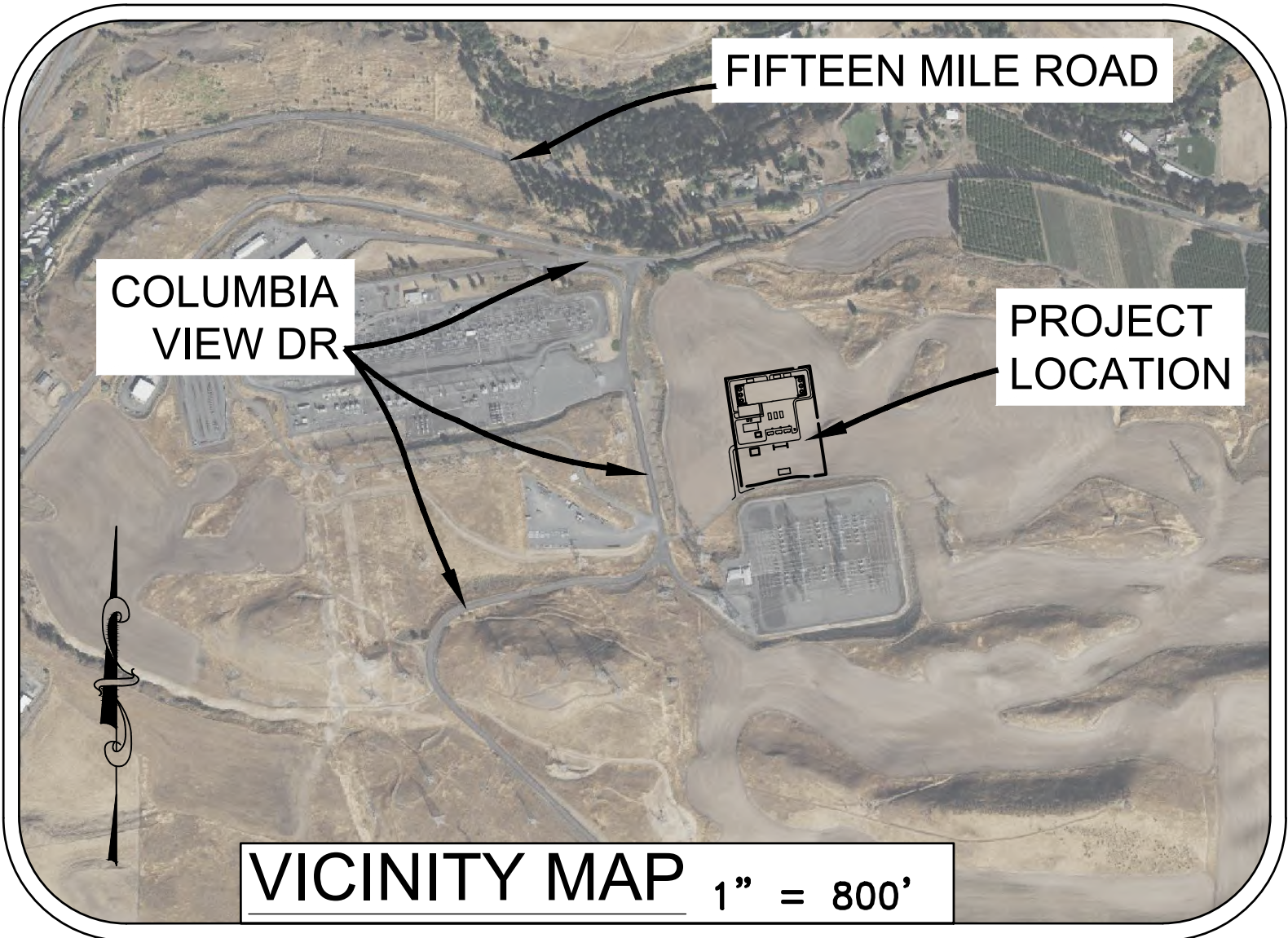
U = analyte not detected at or above the method reporting limit (MRL) or the method detection limit (MDL), MRL reported; J = estimated concentration between the MDL and the MRL; † = ODEQ (2007) freshwater, fish-based bioaccumulative screening level value (SLV); NS = No sample collected due to poor recovery and/or refusal.

Figure 1. Cascade Renewable Transmission (CRT) project actual grab and core sample locations (sampled 12-21 November 2024).





Attachment 3. Draft NPDES 1200-C Erosion and Sediment Control Plan



EROSION AND SEDIMENT CONTROL PLAN SHEET INDEX

10236122-001-ESC01	COVER SHEET
10236122-001-ESC02	GENERAL NOTES
10236122-001-ESC03	EXISTING CONDITIONS
10236122-001-ESC04	DEMO, CLEARING, GRADING, EXCAVATING, AND LAND DEVELOPMENT PHASE
10236122-001-ESC05	STREET AND UTILITIES
10236122-001-ESC06	VERTICAL CONSTRUCTION PHASE - NOT INCLUDED IN THIS SUBMITTAL
10236122-001-ESC07	FINAL LANDSCAPING AND STABILIZATION PHASE
10236122-001-ESC08	BMP DETAILS 1
10236122-001-ESC09	BMP DETAILS 2

CASCADE RENEWABLE TRANSMISSION
THE DALLES SITE

PROJECT LOCATION:

LOCATED ALONG COLUMBIA VIEW DR. SOUTH OF FIFTEEN MILE ROAD
SITE SPANS TAX LOTS IN TOWNSHIP 1 NORTH, RANGE 14 EAST AND
TOWNSHIP 2 NORTH, RANGE 14 EAST, WILLAMETTE PRINCIPAL
MERIDIAN, WASCO COUNTY, OREGON.

LATITUDE = 45°36'18"N LONGITUDE = 121°6'35"W

ATTENTION EXCAVATORS:

OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THESE RULES FROM THE CENTER BY CALLING 503-232-1987. IF YOU HAVE ANY QUESTIONS ABOUT THE RULES, YOU MAY CONTACT THE CENTER. YOU MUST NOTIFY THE CENTER AT LEAST TWO BUSINESS DAYS, BEFORE COMMENCING AN EXCAVATION. CALL 503-246-6699.

OWNER

CASCADE RENEWABLE TRANSMISSION, LLC
CONTACT: CHRIS HOCKER
501 KINGS HIGHWAY EAST, SUITE 300
FAIRFIELD, CT 06825
PHONE: (203) 416-5590

ENGINEERING FIRM

HDR ENGINEERING, INC.
CONTACT: SUZY CAVANAGH
412 E PARKCENTER BLVD
BOISE, ID 83706
PHONE: (208) 387-7141

SURVEYING FIRM

XXX
CONTACT: XXX
XXX (ADDRESS)
PHONE: XXX-XXX-XXXX

NARRATIVE DESCRIPTIONS

EXISTING SITE CONDITIONS

UNDEVELOPED GRASSY LOT WITH MODERATE TO STEEP SLOPES.

DEVELOPED CONDITIONS

FENCED TRANSMISSION SITE WITH CONTROL BUILDING, AC AND DC TRANSMISSION LINES, TRANSFORMERS, PARKING STALLS, VEHICLE TURNING AREA, GATED ENTRANCE ROAD, AND PAVED ASPHALT ACCESS ROADS.

NATURE OF CONSTRUCTION ACTIVITY AND ESTIMATED TIME TABLE

THE PROJECT CONSTRUCTION TIMELINES ARE TO BE DETERMINED:

- * CLEARING (TBD)
- * GRADING (TBD)
- * UTILITY INSTALLATION (TBD)
- * STREET CONSTRUCTION (TBD)
- * FINAL STABILIZATION (TBD)

TOTAL SITE AREA = 312.3 ac
TOTAL DISTURBED AREA = 6.45 ac

SITE SOIL CLASSIFICATION:

- WATO VERY FINE SANDY LOAM - HYDROLOGIC GROUP B - 100%

RECEIVING WATER BODIES:

FIFTEEN MILE CREEK (USEPA WATERSHED 170701050306) - CREEK IS NORTH OF THE PROJECT SITE.

PERMITTEE'S SITE INSPECTOR:

CONTRACTOR TO PROVIDE

COMPANY/AGENCY: TBD

PHONE: TBD

FAX: TBD

E-MAIL: TBD

DESCRIPTION OF EXPERIENCE: CESCL#: TBD

NOTE:

STORMWATER RUNOFF GENERATED IN AREAS DISTURBED BY PROJECT CONSTRUCTION WILL BE MANAGED ON-SITE, THROUGH THE USE OF CONSTRUCTION STORMWATER BMPS AS DESCRIBED IN THE NPDES 1200-C CONSTRUCTION PERMIT AND ACCOMPANYING ESCP (REFERENCE EXHIBIT I). THE PROJECT WILL COMPLY WITH FEDERAL, STATE, AND LOCAL STATUTES AND REGULATIONS RELATED TO CONSTRUCTION STORMWATER RUNOFF, INCLUDING DRAINAGE DISTRICTS AND OTHER FLOOD PROTECTION PROVIDERS, INCLUDING BUT NOT LIMITED TO THE MULTNOMAH COUNTY DRAINAGE DISTRICT REGARDING POTENTIAL IMPACTS TO THE PORTLAND METRO LEVEE SYSTEM AND THE NPDES 1200-C PERMIT AND ESCP WHICH WILL BE COMPLETED PRIOR TO CONSTRUCTION. THE PROJECT WILL ALSO COMPLY WITH FEDERAL, STATE, AND LOCAL STATUTES FOR POST CONSTRUCTION PERMANENT STORMWATER BMPS, WHICH WILL REDUCE STORMWATER IMPACTS TO BELOW SIGNIFICANT LEVELS.

THE PERMITTEE IS REQUIRED TO MEET ALL THE CONDITIONS OF THE 1200C PERMIT. THIS ESCP AND GENERAL CONDITIONS HAVE BEEN DEVELOPED TO FACILITATE COMPLIANCE WITH THE 1200C PERMIT REQUIREMENTS. IN CASES OF DISCREPANCIES OR OMISSIONS, THE 1200C PERMIT REQUIREMENTS SUPERCEDE REQUIREMENTS OF THIS PLAN.

BMP MATRIX FOR CONSTRUCTION PHASES

REFER TO DEQ GUIDANCE MANUAL FOR A COMPREHENSIVE LIST OF AVAILABLE BMPS.

	CLEARING	MASS GRADING	UTILITY INSTALLATION	STREET CONSTRUCTION	FINAL STABILIZATION	WET WEATHER (OCT. 1 - MAY 31ST)
EROSION PREVENTION						
PRESERVE NATURAL VEGETATION	**X	X	X	X	X	X
GROUND COVER						
HYDRAULIC APPLICATIONS						
PLASTIC SHEETING	X	X	X	X	X	X
MATTING						
DUST CONTROL	X	X	X	X	X	
TEMPORARY PERMANENT SEEDING					X	X
BUFFER ZONE	X	X	X	X	X	X
OTHER						
SEDIMENT CONTROL						
SEDIMENT FENCE (PERIMETER)	**X	X	X	X	X	X
SEDIMENT FENCE (INTERIOR)	**X	X	X	X	X	X
STRAW MATS/TIES	**X	X	X	X	X	X
FILTER BERM						
INLET PROTECTION			X	X	X	X
DEWATERING						
SEDIMENT TRAP	**X	X	X	X	X	
NATURAL BUFFER ENCROACHMENT						
OTHER						
RUN OFF CONTROL						
CONSTRUCTION ENTRANCE	X	X	X	X	X	X
PIPE SLOPE DRAIN				X	X	X
OUTLET PROTECTION						
SURFACE ROUGHENING						
CHECK DAMS	X	X	X	X	X	X
DIVERSION	X	X	X	X	X	X
OTHER						
POLLUTION PREVENTION						
PROPER SIGNAGE		X	X	X	X	X
HAZ WASTE MGMT						
SPILL KIT ON-SITE	X	X	X	X	X	X
CONCRETE WASHOUT AREA	X	X	X	X	X	X
OTHER						

*SIGNIFIES ADDITIONAL BMPS REQUIRED FOR WORK WITHIN 50' OF WATER OF THE STATE.
**SIGNIFIES BMP THAT WILL BE INSTALLED PRIOR TO ANY GROUND DISTURBING ACTIVITY.

RATIONALE STATEMENT

A COMPREHENSIVE LIST OF AVAILABLE BEST MANAGEMENT PRACTICES (BMP) OPTIONS BASED ON DEQ's GUIDANCE MANUAL HAS BEEN REVIEWED TO COMPLETE THIS EROSION AND SEDIMENT CONTROL PLAN. SOME OF THE ABOVE LISTED BMPS WERE NOT CHOSEN BECAUSE THEY WERE DETERMINED TO NOT EFFECTIVELY MANAGE EROSION PREVENTION AND SEDIMENT CONTROL FOR THIS PROJECT BASED ON SPECIFIC SITE CONDITIONS. THESE INCLUDE SOIL CONDITIONS, TOPOGRAPHIC CONSTRAINTS, ACCESSIBILITY TO THE SITE, AND OTHER RELATED CONDITIONS. AS THE PROJECT PROGRESSES AND THERE IS A NEED TO REVISE THE ESC PLAN, AN ACTION PLAN WILL BE SUBMITTED.

INITIAL _____

INSPECTION FREQUENCY:

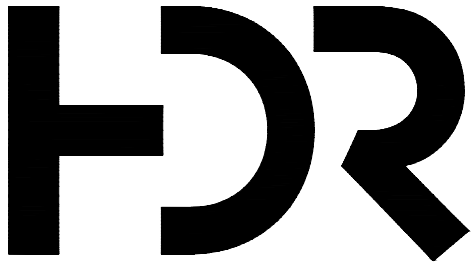
SITE CONDITION	MINIMUM FREQUENCY
1. ACTIVE PERIOD	ON INITIAL DATE THAT LAND DISTURBANCE ACTIVITIES COMMENCE. WITHIN 24 HOURS OF ANY STORM EVENT, INCLUDING RUNOFF FROM SNOW MELT, THAT RESULTS IN DISCHARGE FROM THE SITE. AT LEAST ONCE EVERY 14 DAYS, REGARDLESS OF WHETHER STORMWATER RUNOFF IS OCCURRING.
2. INACTIVE PERIODS GREATER THAN FOURTEEN(14) CONSECUTIVE CALENDAR DAYS	THE INSPECTOR MAY REDUCE THE FREQUENCY OF INSPECTIONS IN ANY AREA OF THE SITE WHERE THE STABILIZATION STEPS IN SECTION 2.2.20 HAVE BEEN COMPLETED TO TWICE PER MONTH FOR THE FIRST MONTH, NO LESS THAN 14 CALENDAR DAYS APART, THEN ONCE PER MONTH.
3. PERIODS DURING WHICH THE SITE IS INACCESSIBLE DUE TO INCLEMENT WEATHER	IF SAFE, ACCESSIBLE AND PRACTICAL, INSPECTIONS MUST OCCUR DAILY AT A RELEVANT DISCHARGE POINT OR DOWNSTREAM LOCATION OF THE RECEIVING WATERBODY.
4. PERIODS DURING WHICH CONSTRUCTION ACTIVITIES ARE SUSPENDED AND RUNOFF IS UNLIKELY DUE TO FROZEN CONDITIONS.	VISUAL MONITORING INSPECTIONS MAY BE TEMPORARILY SUSPENDED. IMMEDIATELY RESUME MONITORING UPON THAWING, OR WHEN WEATHER CONDITIONS MAKE DISCHARGES LIKELY.
5. PERIODS DURING WHICH CONSTRUCTION ACTIVITIES ARE CONDUCTED AND RUNOFF IS UNLIKELY DURING FROZEN CONDITIONS.	VISUAL MONITORING INSPECTIONS MAY BE REDUCED TO ONCE A MONTH. IMMEDIATELY RESUME MONITORING UPON THAWING, OR WHEN WEATHER CONDITIONS MAKE DISCHARGES LIKELY.

PROFESSIONAL ENG STAMP	REVISION			APPROVAL			PROJECT INFORMATION	DRAWING INFORMATION		
	REV	DATE	DESCRIPTION	CAD	CHK	APP		CASCADE RENEWABLE TRANSMISSION - THE DALLES EROSION AND SEDIMENT CONTROL PLAN COVER SHEET		
	A	07/15/24	FOR INFORMATION ONLY	ERE	NTF		POWER BRIDGE CASCADE RENEWABLE TRANSMISSION PROJECT			
							COORDINATE SYSTEM	NAD83 OREGON STATE PLANES, NORTH ZONE, US FEET		
							VERTICAL DATUM	NAVD88		
							TOPOGRAPHIC DATA	PUBLIC DATA		
							AERIAL IMAGERY	GOOGLE EARTH		
							SURVEY COMPANY	N/A		
								LOCATION		
								SCALE NOTED	SHEET 1 OF 9	10236122-001-ESC01



STANDARD EROSION AND SEDIMENT CONTROL PLAN DRAWING NOTES:

- ONCE KNOWN, INCLUDE A LIST OF ALL CONTRACTORS THAT WILL ENGAGE IN CONSTRUCTION ACTIVITIES ON SITE, AND THE AREAS OF THE SITE WHERE THE CONTRACTOR(S) WILL ENGAGE IN CONSTRUCTION ACTIVITIES. REVISE THE LIST AS APPROPRIATE UNTIL PERMIT COVERAGE IS TERMINATED (SECTION 4.4.C.1). IN ADDITION, INCLUDE A LIST OF ALL PERSONNEL (BY NAME AND POSITION) THAT ARE RESPONSIBLE FOR THE DESIGN, INSTALLATION AND MAINTENANCE OF STORMWATER CONTROL MEASURES (E.G. ESCP DEVELOPER, BMP INSTALLER (SEE SECTION 4.10), AS WELL AS THEIR INDIVIDUAL RESPONSIBILITIES. (SECTION 4.4.C.1)
- VISUAL MONITORING INSPECTION REPORTS MUST BE MADE IN ACCORDANCE WITH DEQ 1200-C PERMIT REQUIREMENTS. (SECTION 6.5)
- INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ'S 1200-C PERMIT REQUIREMENTS. (SECTION 6.5.Q)
- RETAIN A COPY OF THE ESCP AND ALL REVISIONS ON SITE AND MAKE IT AVAILABLE ON REQUEST TO DEQ, AGENT, OR THE LOCAL MUNICIPALITY. (SECTION 4.7)
- THE PERMIT REGISTRANT MUST IMPLEMENT THE ESCP. FAILURE TO IMPLEMENT ANY OF THE CONTROL MEASURES OR PRACTICES DESCRIBED IN THE ESCP IS A VIOLATION OF THE PERMIT. (SECTIONS 4 AND 4.11)
- THE ESCP MUST BE ACCURATE AND REFLECT SITE CONDITIONS. (SECTION 4.8)
- SUBMISSION OF ALL ESCP REVISIONS IS NOT REQUIRED. SUBMITTAL OF THE ESCP REVISIONS IS ONLY UNDER SPECIFIC CONDITIONS. SUBMIT ALL NECESSARY REVISION TO DEQ OR AGENT WITHIN 10 DAYS. (SECTION 4.9)
- SEQUENCE CLEARING AND GRADING TO THE MAXIMUM EXTENT PRACTICAL TO PREVENT EXPOSED INACTIVE AREAS FROM BECOMING A SOURCE OF EROSION. (SECTION 2.2.2)
- CREATE SMOOTH SURFACES BETWEEN SOIL SURFACE AND EROSION AND SEDIMENT CONTROLS TO PREVENT STORMWATER FROM BYPASSING CONTROLS AND PONDING. (SECTION 2.2.3)
- IDENTIFY, MARK, AND PROTECT (BY CONSTRUCTION FENCING OR OTHER MEANS) CRITICAL RIPARIAN AREAS AND VEGETATION INCLUDING IMPORTANT TREES AND ASSOCIATED ROOTING ZONES, AND VEGETATION AREAS TO BE PRESERVED. IDENTIFY VEGETATIVE BUFFER ZONES BETWEEN THE SITE AND SENSITIVE AREAS (E.G., WETLANDS), AND OTHER AREAS TO BE PRESERVED, ESPECIALLY IN PERIMETER AREAS. (SECTION 2.2.1)
- PRESERVE EXISTING VEGETATION WHEN PRACTICAL AND RE-VEGETATE OPEN AREAS. RE-VEGETATE OPEN AREAS WHEN PRACTICABLE BEFORE AND AFTER GRADING OR CONSTRUCTION. IDENTIFY THE TYPE OF VEGETATIVE SEED MIX USED. (SECTION 2.2.5)
- MAINTAIN AND DELINEATE ANY EXISTING NATURAL BUFFER WITHIN THE 50-FEET OF WATERS OF THE STATE. (SECTION 2.2.4)
- INSTALL PERIMETER SEDIMENT CONTROL, INCLUDING STORM DRAIN INLET PROTECTION AS WELL AS ALL SEDIMENT BASINS, TRAPS, AND BARRIERS PRIOR TO LAND DISTURBANCE. (SECTIONS 2.1.3) BARRIERS PRIOR TO LAND DISTURBANCE. (SECTIONS 2.1.3).
- CONTROL BOTH PEAK FLOW RATES AND TOTAL STORMWATER VOLUME, TO MINIMIZE EROSION AT OUTLETS AND DOWNSTREAM CHANNELS AND STREAMBANKS. (SECTIONS 2.1.1. AND 2.2.16)
- CONTROL SEDIMENT AS NEEDED ALONG THE SITE PERIMETER AND AT ALL OPERATIONAL INTERNAL STORM DRAIN INLETS AT ALL TIMES DURING CONSTRUCTION, BOTH INTERNALLY AND AT THE SITE BOUNDARY. (SECTIONS 2.2.6 AND 2.2.13)
- ESTABLISH CONCRETE TRUCK AND OTHER CONCRETE EQUIPMENT WASHOUT AREAS BEFORE BEGINNING CONCRETE WORK. (SECTION 2.2.14)
- APPLY TEMPORARY AND/OR PERMANENT SOIL STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS AS GRADING PROGRESSES. TEMPORARY OR PERMANENT STABILIZATIONS MEASURES ARE NOT REQUIRED FOR AREAS THAT ARE INTENDED TO BE LEFT UNVEGETATED, SUCH AS DIRT ACCESS ROADS OR UTILITY POLE PADS.(SECTIONS 2.2.20 AND 2.2.21)
- ESTABLISH MATERIAL AND WASTE STORAGE AREAS, AND OTHER NON-STORMWATER CONTROLS. (SECTION 2.3.7)
- KEEP WASTE CONTAINER LIDS CLOSED WHEN NOT IN USE, AND CLOSE LIDS AT THE END OF THE BUSINESS DAY FOR THOSE CONTAINERS THAT ARE ACTIVELY USED THROUGHOUT THE DAY. FOR WASTE CONTAINERS THAT DO NOT HAVE LIDS, PROVIDE EITHER (1) COVER (E.G., A TARP, PLASTIC SHEETING, TEMPORARY ROOF) TO PREVENT EXPOSURE OF WASTES TO PRECIPITATION, OR (2) A SIMILARLY EFFECTIVE MEANS DESIGNED TO PREVENT THE DISCHARGE OF POLLUTANTS (E.G., SECONDARY CONTAINMENT). (SECTION 2.3.7)
- PREVENT TRACKING OF SEDIMENT ONTO PUBLIC OR PRIVATE ROADS USING BMPS SUCH AS: CONSTRUCTION ENTRANCE, GRAVELED (OR PAVED)EXITS AND PARKING AREAS, GRAVEL ALL UNPAVED ROADS LOCATED ONSITE, OR USE AN EXIT TIRE WASH. THESE BMPS MUST BE IN PLACE PRIOR TO LAND- DISTURBING ACTIVITIES. (SECTION 2.2.7)
- WHEN TRUCKING SATURATED SOILS FROM THE SITE, EITHER USE WATER-TIGHT TRUCKS OR DRAIN LOADS ON SITE. (SECTION 2.2.7.F)
- CONTROL PROHIBITED DISCHARGES FROM LEAVING THE CONSTRUCTION SITE, I.E., CONCRETE WASH-OUT, WASTEWATER FROM CLEANOUT OF STUCCO, PAINT AND CURING COMPOUNDS. (SECTIONS 1.5 AND 2.3.9)
- ENSURE THAT STEEP SLOPE AREAS WHERE CONSTRUCTION ACTIVITIES ARE NOT OCCURRING ARE NOT DISTURBED. (SECTION 2.2.10)
- PREVENT SOIL COMPACTION IN AREAS WHERE POST-CONSTRUCTION INFILTRATION FACILITIES ARE TO BE INSTALLED. (SECTION 2.2.12)
- USE BMPS TO PREVENT OR MINIMIZE STORMWATER EXPOSURE TO POLLUTANTS FROM SPILLS; VEHICLE AND EQUIPMENT FUELING, MAINTENANCE, AND STORAGE; OTHER CLEANING AND MAINTENANCE ACTIVITIES; AND WASTE HANDLING ACTIVITIES. THESE POLLUTANTS INCLUDE FUEL, HYDRAULIC FLUID, AND OTHER OILS FROM VEHICLES AND MACHINERY, AS WELL AS DEBRIS, FERTILIZER, PESTICIDES AND HERBICIDES, PAINTS, SOLVENTS, CURING COMPOUNDS AND ADHESIVES FROM CONSTRUCTION OPERATIONS. (SECTIONS 2.2.15 AND 2.3)
- PROVIDE PLANS FOR SEDIMENTATION BASINS THAT HAVE BEEN DESIGNED PER SECTION 2.2.17 AND STAMPED BY AN OREGON PROFESSIONAL ENGINEER. (SEE SECTION 2.2.17.A)
- IF ENGINEERED SOILS ARE USED ON SITE, A SEDIMENTATION BASIN/IMPOUNDMENT MUST BE INSTALLED. (SEE SECTIONS 2.2.17 AND 2.2.18)
- PROVIDE A DEWATERING PLAN FOR ACCUMULATED WATER FROM PRECIPITATION AND UNCONTAMINATED GROUNDWATER SEEPAGE DUE TO SHALLOW EXCAVATION ACTIVITIES. (SEE SECTION 2.4)
- IMPLEMENT THE FOLLOWING BMPS WHEN APPLICABLE: WRITTEN SPILL PREVENTION AND RESPONSE PROCEDURES, EMPLOYEE TRAINING ON SPILL PREVENTION AND PROPER DISPOSAL PROCEDURES, SPILL KITS IN ALL VEHICLES, REGULAR MAINTENANCE SCHEDULE FOR VEHICLES AND MACHINERY, MATERIAL DELIVERY AND STORAGE CONTROLS, TRAINING AND SIGNAGE, AND COVERED STORAGE AREAS FOR WASTE AND SUPPLIES. (SECTION 2.3)
- USE WATER, SOIL-BINDING AGENT OR OTHER DUST CONTROL TECHNIQUE AS NEEDED TO AVOID WIND-BLOWN SOIL. (SECTION 2.2.9)
- THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS TO MINIMIZE NUTRIENT RELEASES TO SURFACE WATERS. EXERCISE CAUTION WHEN USING TIME-RELEASE FERTILIZERS WITHIN ANY WATERWAY RIPARIAN ZONE. (SECTION 2.3.5)
- IF AN ACTIVE TREATMENT SYSTEM (FOR EXAMPLE, ELECTRO-COAGULATION, FLOCCULATION, FILTRATION, ETC.) FOR SEDIMENT OR OTHER POLLUTANT REMOVAL IS EMPLOYED, SUBMIT AN OPERATION AND MAINTENANCE PLAN (INCLUDING SYSTEM SCHEMATIC, LOCATION OF SYSTEM, LOCATION OF INLET, LOCATION OF DISCHARGE, DISCHARGE DISPERSION DEVICE DESIGN, AND A SAMPLING PLAN AND FREQUENCY) BEFORE OPERATING THE TREATMENT SYSTEM. OBTAIN ENVIRONMENTAL MANAGEMENT PLAN APPROVAL FROM DEQ BEFORE OPERATING THE TREATMENT SYSTEM. OPERATE AND MAINTAIN THE TREATMENT SYSTEM ACCORDING TO MANUFACTURER'S SPECIFICATIONS. (SECTION 1.2.9)
- TEMPORARILY STABILIZE SOILS AT THE END OF THE SHIFT BEFORE HOLIDAYS AND WEEKENDS, IF NEEDED. THE REGISTRANT IS RESPONSIBLE FOR ENSURING THAT SOILS ARE STABLE DURING RAIN EVENTS AT ALL TIMES OF THE YEAR. (SECTION 2.2)
- AS NEEDED BASED ON WEATHER CONDITIONS, AT THE END OF EACH WORKDAY SOIL STOCKPILES MUST BE STABILIZED OR COVERED, OR OTHER BMPS MUST BE IMPLEMENTED TO PREVENT DISCHARGES TO SURFACE WATERS OR CONVEYANCE SYSTEMS LEADING TO SURFACE WATERS. (SECTION 2.2.8)
- SEDIMENT FENCE: REMOVE TRAPPED SEDIMENT BEFORE IT REACHES ONE THIRD OF THE ABOVE GROUND FENCE HEIGHT AND BEFORE FENCE REMOVAL. (SECTION 2.1.5.B)
- OTHER SEDIMENT BARRIERS (SUCH AS BIOBAGS): REMOVE SEDIMENT BEFORE IT REACHES TWO INCHES DEPTH ABOVE GROUND HEIGHT AND BEFORE BMP REMOVAL. (SECTION 2.1.5.C)
- CATCH BASINS: CLEAN BEFORE RETENTION CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT. SEDIMENT BASINS AND SEDIMENT TRAPS: REMOVE TRAPPED SEDIMENTS BEFORE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT AND AT COMPLETION OF PROJECT. (SECTION 2.1.5.D)
- WITHIN 24 HOURS, SIGNIFICANT SEDIMENT THAT HAS LEFT THE CONSTRUCTION SITE, MUST BE REMEDIATED. INVESTIGATE THE CAUSE OF THE SEDIMENT RELEASE AND IMPLEMENT STEPS TO PREVENT A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN-UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DEPARTMENT OF STATE LANDS REQUIRED TIMEFRAME. (SECTION 2.2.19.A)
- THE INTENTIONAL WASHING OF SEDIMENT INTO STORM SEWERS OR DRAINAGE WAYS MUST NOT OCCUR. VACUUMING OR DRY SWEEPING AND MATERIAL PICKUP MUST BE USED TO CLEANUP RELEASED SEDIMENTS. (SECTION 2.2.19)
- DOCUMENT ANY PORTION(S) OF THE SITE WHERE LAND DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED OR WILL BE TEMPORARILY INACTIVE FOR 14 OR MORE CALENDAR DAYS. (SECTION 6.5.F.)
- PROVIDE TEMPORARY STABILIZATION FOR THAT PORTION OF THE SITE WHERE CONSTRUCTION ACTIVITIES CEASE FOR 14 DAYS OR MORE WITH A COVERING OF BLOWN STRAW AND A TACKIFIER, LOOSE STRAW, OR AN ADEQUATE COVERING OF COMPOST MULCH UNTIL WORK RESUMES ON THAT PORTION OF THE SITE. (SECTION 2.2.20)
- DO NOT REMOVE TEMPORARY SEDIMENT CONTROL PRACTICES UNTIL PERMANENT VEGETATION OR OTHER COVER OF EXPOSED AREAS IS ESTABLISHED. ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED, ALL TEMPORARY EROSION CONTROLS AND RETAINED SOILS MUST BE REMOVED AND DISPOSED OF PROPERLY, UNLESS NEEDED FOR LONG TERM USE FOLLOWING TERMINATION OF PERMIT COVERAGE. (SECTION 2.2.21)

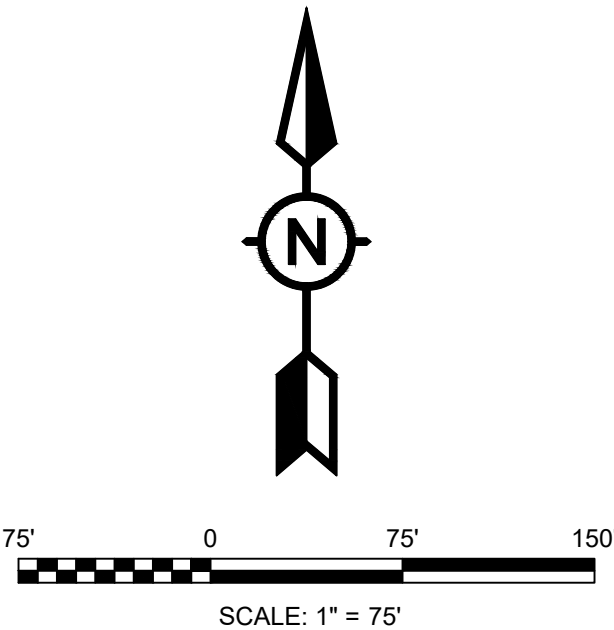
PROFESSIONAL ENG STAMP		REVISION			APPROVAL					PROJECT INFORMATION		DRAWING INFORMATION		
	REV	DATE	DESCRIPTION	CAD	CHK	APP	POWER BRIDGE CASCADE RENEWABLE TRANSMISSION PROJECT			CASCADE RENEWABLE TRANSMISSION - THE DALLS EROSION AND SEDIMENT CONTROL PLAN GENERAL NOTES				
	A	07/15/24	FOR INFORMATION ONLY	ERE	NTF									
COORDINATE SYSTEM		NAD83 OREGON STATE PLANES, NORTH ZONE, US FEET		LOCATION										
VERTICAL DATUM		NAVD88		SCALE										
TOPOGRAPHIC DATA		PUBLIC DATA		NOTED										
AERIAL IMAGERY		GOOGLE EARTH												
SURVEY COMPANY		N/A												
						SHEET		10236122-001-ESC02						
						2 OF 9								



SIZE - ANSI D (34x22)



- LEGEND:**
- PROPERTY LINE
 - EASEMENT
 - EXISTING 10' CONTOUR LINE
 - EXISTING 2' CONTOUR LINE
 - LIMITS OF DISTURBANCE
 - DIRECTION OF RUNOFF



NOTE: SURFACE BASED ON 10-METER
RESOLUTION LIDAR DATA PUBLISHED
BY THE STATE OF OREGON. ONLINE
DATASET ACCESSED ON 10 MAY 2024.



PROFESSIONAL ENG STAMP		REVISION			APPROVAL			PROJECT INFORMATION		DRAWING INFORMATION		
REGISTERED PROFESSIONAL ENGINEER 100489PPE DIGITAL SIGNATURE OREGON NOVEMBER 8, 2025 NATHAN FASTENAU EXPIRES: 12/31/2025	REV	DATE	DESCRIPTION	CAD	CHK	APP	HDR	POWER BRIDGE CASCADE RENEWABLE TRANSMISSION PROJECT		CASCADE RENEWABLE TRANSMISSION - THE DALLES EROSION AND SEDIMENT CONTROL PLAN EXISTING CONDITIONS		
	A	07/15/24	FOR INFORMATION ONLY	ERE	NTF							
COORDINATE SYSTEM		NAD83 OREGON STATE PLANES, NORTH ZONE, US FEET							LOCATION			
VERTICAL DATUM		NAVD88							SCALE		SHEET	
TOPOGRAPHIC DATA		PUBLIC DATA							NOTED		3 OF 9	
AERIAL IMAGERY		GOOGLE EARTH										
SURVEY COMPANY		N/A									10236122-001-ESC03	

SIZE - ANSI D (34x22)

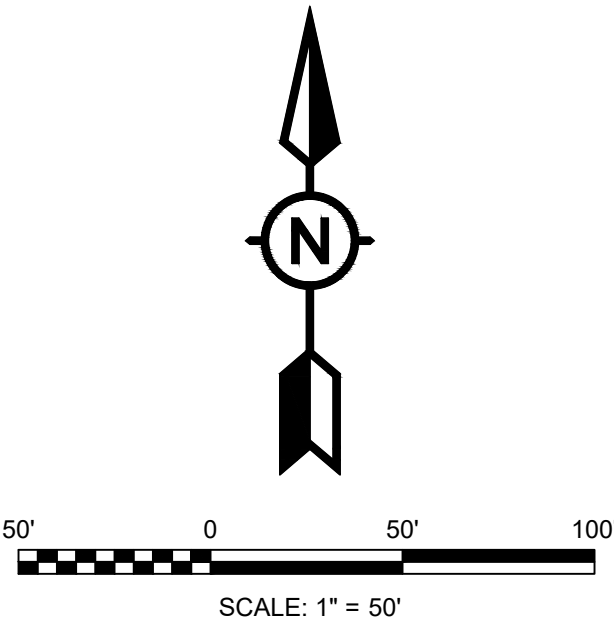


LEGEND:

- PROPERTY LINE
- EASEMENT
- CONDUIT ALIGNMENT CENTERLINE
- EXISTING 10' CONTOUR LINE
- EXISTING 2' CONTOUR LINE
- LIMITS OF DISTURBANCE
- SEDIMENT FENCE PER DETAIL RD1040 / 8
- SOIL STOCKPILE AREA WITH SLOPE MATTING PER DETAIL RD1055 / 8
- STABILIZED CONSTRUCTION ENTRANCE PER DETAIL RD1000 / 8
- WHEEL WASH PER DETAIL RD1070 / 8
- INLET PROTECTION PER DETAIL RD1010 / 8 - TO BE SHOWN IN FUTURE SET

- GRADING PHASE INFORMATION:**
- ONSITE SOIL TYPES:
 - A) WATO VERY FINE SANDY LOAM - HYDROLOGIC SOIL GROUP B - 100%
 - EXISTING VEGETATION YET TO BE SURVEYED.
 - CUT AND FILL DATA:
 - CUT: TBD
 - FILL (1.20 FACTOR): TBD
 - NET ADJUSTED: TBD
 - ONSITE FILL MATERIALS:
 - NATIVE SOIL
 - CRUSHED ROCK

- GRADING PHASE NOTES:**
- PROPOSED SITE DRAINAGE DITCHES SHALL BE PERMANENTLY STABILIZED AS SOON AS POSSIBLE AFTER EXCAVATION.
 - STRAW MULCH AND/OR HYDROSEED SHALL BE USED FOR TEMPORARY STABILIZATION OF EXPOSED SOILS AFTER EXCAVATION (INCLUDING SOIL STOCKPILES IF SLOPE MATTING DOES NOT WORK).

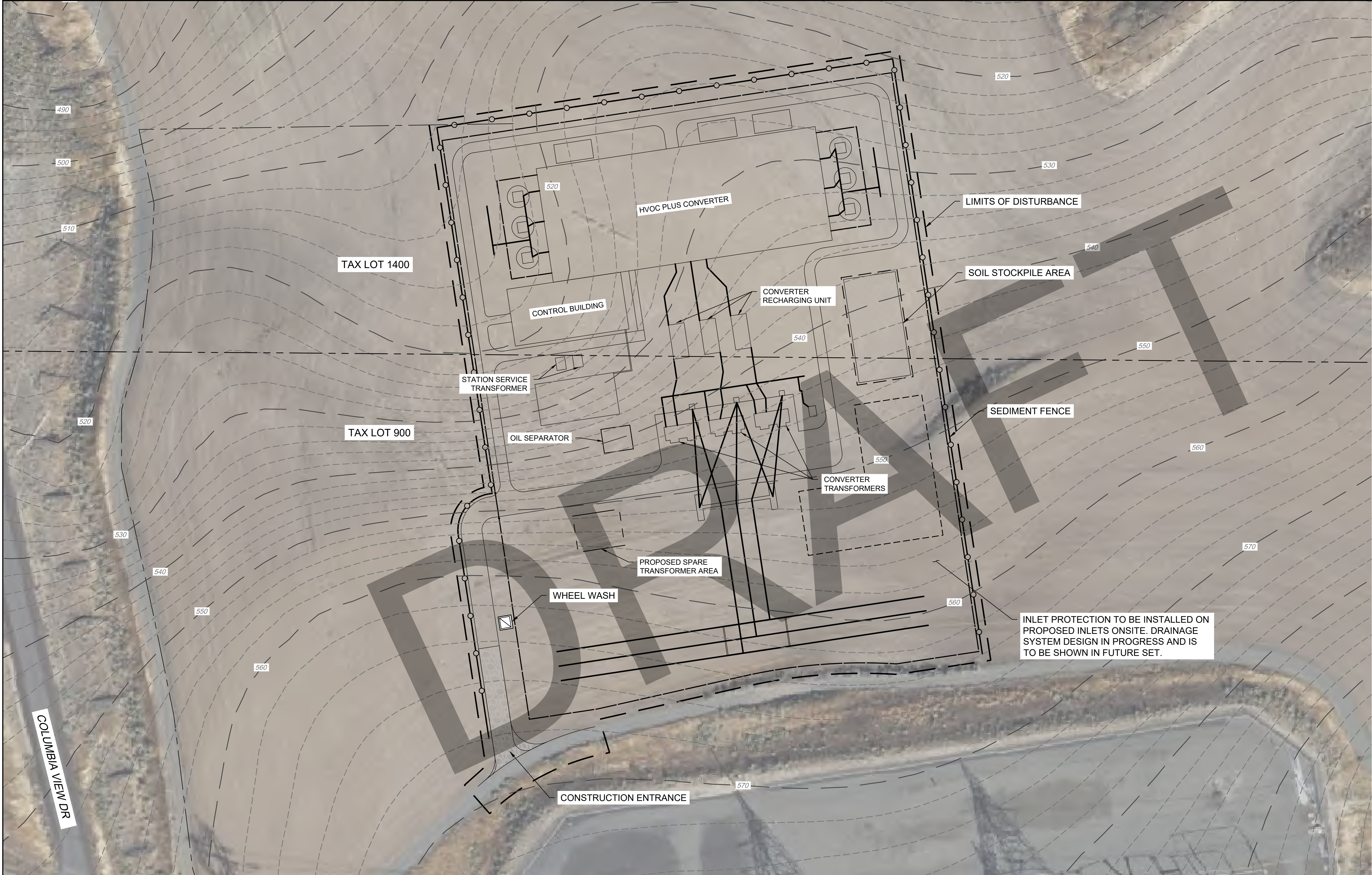


NOTE: FINAL GRADING IS IN PROGRESS. CUT/FILL AREAS AND ADDITIONAL DEMO INFORMATION TO BE PROVIDED IN FUTURE SET.



PROFESSIONAL ENG STAMP		REVISION			APPROVAL			HDR				PROJECT INFORMATION		DRAWING INFORMATION				
REGISTERED PROFESSIONAL ENGINEER 100489PE DIGITAL SIGNATURE OREGON NOVEMBER 8, 2025 NATHAN FASTENAU EXPIRES: 12/31/2025	REV	DATE	DESCRIPTION	CAD	CHK	APP	POWER BRIDGE CASCADE RENEWABLE TRANSMISSION PROJECT					CASCADE RENEWABLE TRANSMISSION - THE DALLES EROSION AND SEDIMENT CONTROL PLAN DEMO, CLEARING, GRADING, EXCAVATING, AND LAND DEVELOPMENT PHASE						
	A	07/15/24	FOR INFORMATION ONLY	ERE	NTF													
												COORDINATE SYSTEM	NAD83 OREGON STATE PLANES, NORTH ZONE, US FEET		LOCATION			
												VERTICAL DATUM	NAVD88		SCALE		SHEET	
												TOPOGRAPHIC DATA	PUBLIC DATA		NOTED		4 OF 9	
												AERIAL IMAGERY	GOOGLE EARTH				10236122-001-ESC04	
												SURVEY COMPANY	N/A					

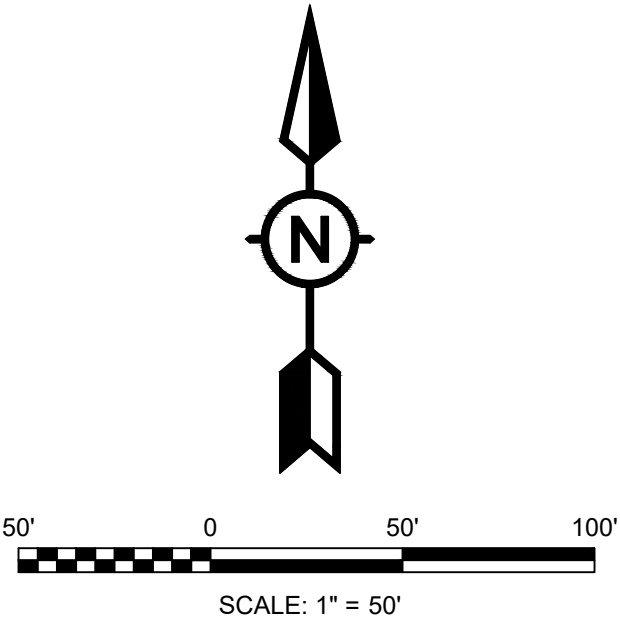
SIZE - ANSI D (34x22)



LEGEND:

- PROPERTY LINE
- EASEMENT
- CONDUIT ALIGNMENT CENTERLINE
- EXISTING 10' CONTOUR LINE
- EXISTING 2' CONTOUR LINE
- LIMITS OF DISTURBANCE
- SEDIMENT FENCE PER DETAIL RD1040 / 8
- SOIL STOCKPILE AREA WITH SLOPE MATTING PER DETAIL RD1055 / 8
- STABILIZED CONSTRUCTION ENTRANCE PER DETAIL RD1000 / 8
- WHEEL WASH PER DETAIL RD1070 / 8
- INLET PROTECTION PER DETAIL RD1010 / 8 - TO BE SHOWN IN FUTURE SET

- UTILITIES PHASE INFORMATION:**
- PHASE SCHEDULE:
START: TBD
FINISH: TBD
- UTILITIES PHASE NOTES:**
- ANY TRENCH DEWATERING SHALL BE DISCHARGED THROUGH A FILTER BAG OR SEDIMENT TRAP.
 - STRAW MULCH AND/OR HYDROSEED SHALL BE USED FOR TEMPORARY STABILIZATION OF ANY EXPOSED TRENCH SPOILS (INCLUDING STOCKPILES IF SLOPE MATTING DOES NOT WORK).



PROFESSIONAL ENG STAMP		REVISION			APPROVAL			PROJECT INFORMATION		DRAWING INFORMATION		
REGISTERED PROFESSIONAL ENGINEER 100489PE DIGITAL SIGNATURE OREGON NOVEMBER 8, 2023 MATHAN FASTENLU EXPIRES: 12/31/2025	REV	DATE	DESCRIPTION	CAD	CHK	APP		POWER BRIDGE CASCADE RENEWABLE TRANSMISSION PROJECT		CASCADE RENEWABLE TRANSMISSION - THE DALLES EROSION AND SEDIMENT CONTROL PLAN STREET AND UTILITIES		
	A	07/15/24	FOR INFORMATION ONLY	ERE	NTF							
								COORDINATE SYSTEM		LOCATION		
								VERTICAL DATUM	NAD83 OREGON STATE PLANES, NORTH ZONE, US FEET	SCALE		
								TOPOGRAPHIC DATA	NAV088	NOTED	SHEET 5 OF 9	10236122-001-ESC05
								AERIAL IMAGERY	PUBLIC DATA			
								SURVEY COMPANY	GOOGLE EARTH			
									N/A			



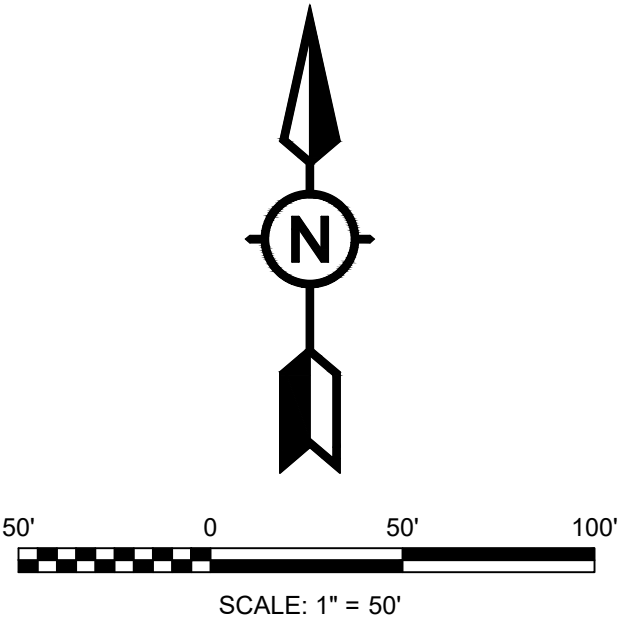
SIZE - ANSI D (34x22)



- LEGEND:
- PROPERTY LINE
 - EASEMENT
 - CONDUIT ALIGNMENT CENTERLINE
 - EXISTING 10' CONTOUR LINE
 - EXISTING 2' CONTOUR LINE

- FINAL STABILIZATION PHASE INFORMATION:
- PHASE SCHEDULE:
START: TBD
FINISH: TBD

- FINAL STABILIZATION PHASE NOTES:
- ALL SEDIMENT AND EROSION CONTROLS TO BE REMOVED UPON COMPLETION OF THIS PHASE.



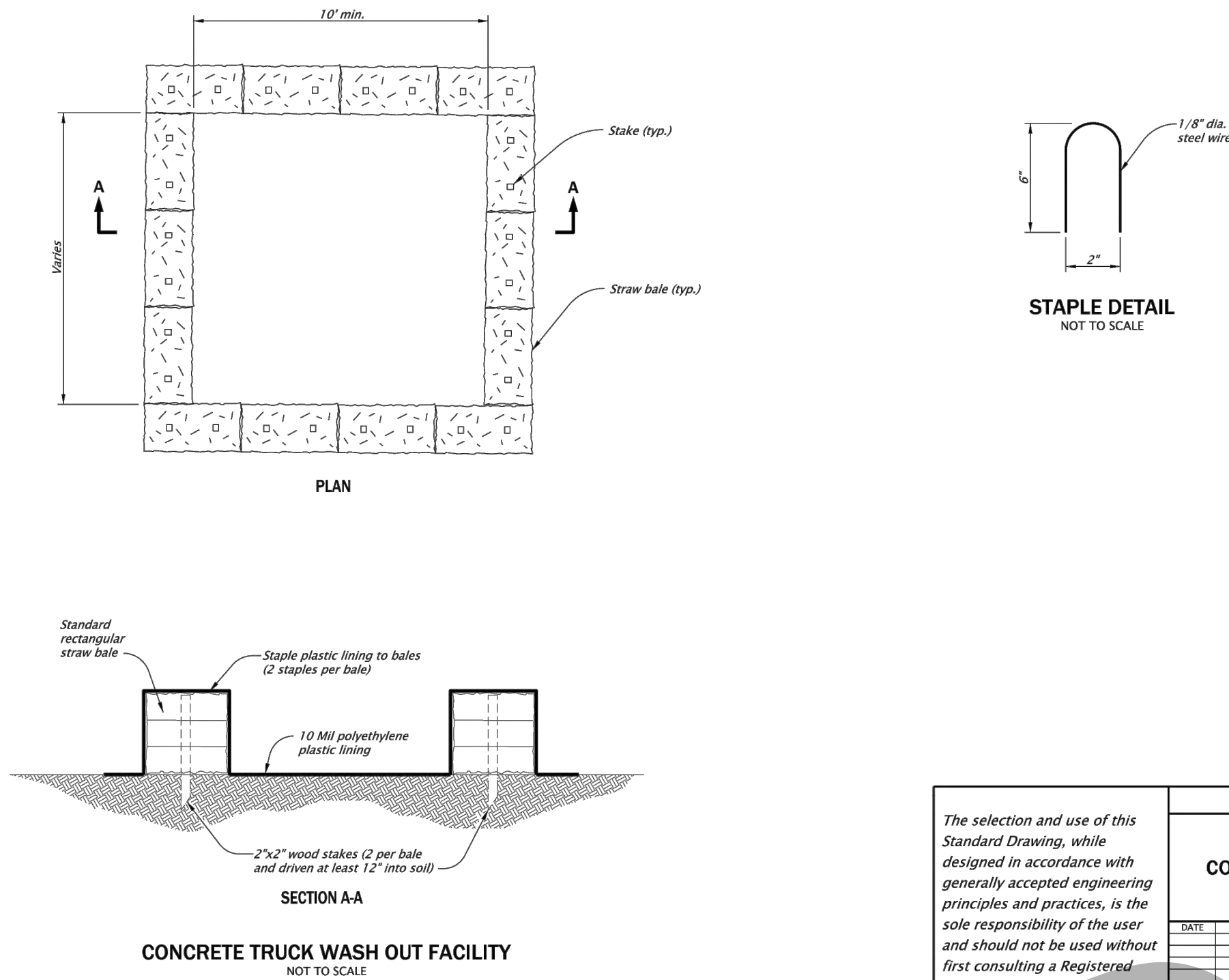
NOTE: FINAL LANDSCAPING IS IN PROGRESS. PLANTING AREAS AND ADDITIONAL STABILIZATION INFORMATION TO BE PROVIDED IN FUTURE SET.



PROFESSIONAL ENG STAMP		REVISION			APPROVAL					PROJECT INFORMATION		DRAWING INFORMATION		
	REV	DATE	DESCRIPTION	CAD	CHK	APP	POWER BRIDGE CASCADE RENEWABLE TRANSMISSION PROJECT			CASCADE RENEWABLE TRANSMISSION - THE DALLES EROSION AND SEDIMENT CONTROL PLAN FINAL LANDSCAPING AND STABILIZATION PHASE				
	A	07/15/24	FOR INFORMATION ONLY	ERE	NTF									
COORDINATE SYSTEM		NAD83 OREGON STATE PLANES, NORTH ZONE, US FEET		LOCATION										
VERTICAL DATUM		NAVD88		SCALE										
TOPOGRAPHIC DATA		PUBLIC DATA		NOTED										
AERIAL IMAGERY		GOOGLE EARTH		SHEET										
SURVEY COMPANY		N/A		7 OF 9		10236122-001-ESC07								

SIZE: ANSI D (34x22)

RD1070.dgn 20-JAN-2021



The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user and should not be used without first consulting a Registered Professional Engineer.

All materials shall be in accordance with the current Oregon Standard Specifications.

OREGON STANDARD DRAWINGS

CONCRETE TRUCK WASH OUT

2024

DATE	REVISION	DESCRIPTION

CALC. BOOK NO. N/A

SOP. DATE 20-JAN-2021

RD1070

Effective Date: June 1, 2024 – November 30, 2024

PROFESSIONAL ENG STAMP		REVISION			APPROVAL			PROJECT INFORMATION		DRAWING INFORMATION		
REGISTERED PROFESSIONAL ENGINEER 100489PE DIGITAL SIGNATURE OREGON NOVEMBER 8, 2022 NATHAN FASTENAU EXPIRES: 12/31/2025	REV	DATE	DESCRIPTION	CAD	CHK	APP		POWER BRIDGE CASCADE RENEWABLE TRANSMISSION PROJECT		CASCADE RENEWABLE TRANSMISSION - THE DALLES EROSION AND SEDIMENT CONTROL PLAN BMP DETAILS 2		
	A	07/15/24	FOR INFORMATION ONLY	ERE	NTF							
COORDINATE SYSTEM		NAD83 OREGON STATE PLANES, NORTH ZONE, US FEET							LOCATION			
VERTICAL DATUM		NAVD88							SCALE		SHEET	
TOPOGRAPHIC DATA		PUBLIC DATA							NOTED		9 OF 9	
AERIAL IMAGERY		GOOGLE EARTH										
SURVEY COMPANY		N/A									10236122-001-ESC09	



SIZE - ANSI D (34x22)