

January 20, 2022

Via E-Mail

Dario Frisone
Proprietary Coordinator
Oregon Department of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279

Re: Annual Report for 2021 and Updated Cost Projections
Remediation and Habitat Restoration and Easement (61850-RAEA)

Dear Mr. Frisone:

This annual report summarizes the work performed by PacifiCorp and Union Oil Company of California (Unocal) during calendar year 2021 pursuant to the State of Oregon Department of State Lands (DSL) Remediation and Habitat Restoration and Easement, 61850-RAEA (RAEA or Easement). PacifiCorp and Unocal entered into the RAEA with the State of Oregon, by and through DSL, on July 7, 2020. PacifiCorp and Unocal are each and together a Grantee to the RAEA. Annual report requirements are provided for in Section 4.2.7 of the RAEA. In accordance with Section 8.3.2 of the RAEA, this report also provides updated costs estimates for maintaining the cap that was constructed in the Easement.

BACKGROUND

The Grantees obtained an RAEA to support the selected remedy for an intertidal portion of a project referred to as the Former Union Oil/PacifiCorp site, Former Petroleum Terminal #0022 and Manufactured Gas Plant (MGP) at 256 Marine Drive in Astoria, Oregon. The Easement area is described as:

All state-owned submerged and submersible lands in the Columbia River located within Section 7, Township 8 North, Range 9 West Willamette Meridian, City of Astoria, Clatsop County, Oregon (Exhibit A-1 from the RAEA; enclosed).

The intertidal project is located on submerged land owned by the State of Oregon within the Columbia River north of a former petroleum terminal and MGP site. The Grantees entered into a Voluntary Cleanup Agreement with the Oregon Department of Environmental Quality (DEQ) in 2002 to investigate and remediate the site. The DEQ Environmental Cleanup Site Information (ECSI) database number for the site is 1646.

The selected remedy for the intertidal area consists of the following elements:

- An organophilic clay treatment barrier within the sediment management area (SMA) and “Contingency Zone,” encompassing the sediment hot-spot area. The organophilic clay barrier (OCB) is constructed using composite geotextiles which contain organophilic clay inside two layers of geotextile fabric material.

- A treatment barrier that provides enough absorptive capacity for 30 years or more and incorporates a safety factor of 2.1 to 4.3.
- A treatment barrier that prevents the loss of contaminants through potential preferential groundwater flow pathways.
- A protective layer designed to withstand wind and wave action.
- A post-construction monitoring program sufficient to detect LNAPL sheens or seeps that may break through the barrier.
- An Institutional Control Plan (ICP) for the SMA that includes use and access restrictions.
- An Operations, Maintenance and Monitoring Program (OMMP) that includes annual inspections for the first 5 years, at a minimum, after remedy construction is complete; once every 5 years, at a minimum, thereafter, and; after major storms or floods. Repairs will be made to the remedy, as needed, based on observations made during the inspections. Inspection elements are detailed in the final OMMP.

DESCRIPTION OF WORK CONDUCTED DURING 2021

On March 4, 2021, the Oregon Department of Environmental Quality provided comments on the *In-Water (Intertidal) Construction Completion Report, Former Petroleum Terminal #0022 and Manufactured Gas Plant (MGP), DEQ ECSI #1646* that the Grantees submitted to DEQ on November 12, 2020. The report summarized the steps performed by the Grantees to implement and complete the intertidal remediation project. It also included a description of the steps taken to implement use/access restrictions in the intertidal area by installing signs near the sediment cap that prohibit anchoring, beaching or grounding of motorized watercraft, shellfish harvesting, and excavation or construction.

On April 14, 2021, the Grantees submitted the final construction completion report to DEQ and DSL; it was dated April 9, 2021.

On August 25, 2021 and on behalf of the Grantees, Dalton, Olmsted & Fuglevand (DOF) performed the 2021 annual inspection of the intertidal sediment remedy in accordance with the DEQ approved OMMP for the site. Report findings were documented in the Annual Inspection of the Intertidal Sediment Remedy report that was submitted to DEQ and DSL on October 11, 2021. Based on the inspection results, DOF concluded that the organoclay barrier (OCB) appeared to be in good condition and the underlying OCB appeared to be performing its intended function, containing the LNAPL within the OCB and preventing visible sheen at the sediment surface. DOF also noted that the use and access restrictions signs on the Columbia House Condominium parking structure and the chain-link fence adjacent to the trolley tracks were in good condition, unobstructed and clearly visible.

VALIDATED ANALYTICAL DATA GENERATED BY THE WORK

None

CORRECTIVE ACTIONS

None

WORK EXPECTED TO BE CONDUCTED IN 2022

As provided for and in accordance with Section 8.4.3 of the RAEA, the Grantees plan to submit a request to DSL to reduce the amount of the Surety Bond currently in place for the site to reflect the current estimate of the projected costs to maintain the Easement area.

The Grantees will conduct the required annual visual inspection of the armor layer during a daylight summer low tide (likely in August) and document observations in an inspection report.

The Grantees will perform contingency visual inspections following events that might impact the integrity of the cap. Significant natural events requiring performance of a contingency inspection include a 50-year 24-hour storm event, one percent flood discharge (commonly called the 100-year flood event) or greater. An inspection report will be prepared following any contingency inspections.

DSL will provide the Grantees with an update on their actions to pursue a formal carveout of the area that they currently lease to the CHC and overlaps with the Easement area.

FINANCIAL ASSURANCE COST ESTIMATES

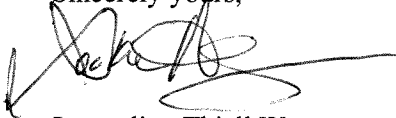
As required under Section 8.3.2 of the RAEA, the current estimate of projected costs to maintain the Easement area for the term of the Easement is \$99,197. Please see the attached table for a breakdown of the costs. As provided for under Section 8.3.3, the Grantees will submit their annual demonstration of financial assurance in accordance with the CJ for the site. Section 4.K. of the CJ requires the Grantees to provide an annual demonstration of financial assurance within 90 days of the close of their fiscal year. For the Grantees, this deadline is March 31st.

FORSEEABLE BARRIERS TO WORK PERFORMANCE

None

Please do not hesitate to contact me if you have any questions.

Sincerely yours,



Jacqueline Thiell Wetzsteon
PacifiCorp Project Manager

Enclosures

cc: Anna Coates, DEQ
J. Mark Inglis, Environmental Lifecycle Management, Inc.
Laura Kerr, Stoel Rives
Ian Robb, Unocal
Anna St. John, Bridgewater Group
Rob Webb, DOF


EXHIBIT A-1

Easement Area Map



EXHIBIT A-1

61850-RAEA Remedial Action Easement
T08N, R09W Section 07DA
2,169 Square Feet
Columbia River, Clatsop County

 Easement Area

This map depicts the approximate location and extent of a Department of State Lands Proprietary authorization for use. This product is for informational purposes only and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Document Path: O:\LM\Land Manager Blake\Authorizations_Template__NEW.mxd

0 50 100
Feet



Map Projection:
Oregon Statewide Lambert
Datum NAD83
International Feet
State of Oregon
Department of State Lands
775 Summer St NE, Suite 100
Salem, OR 97301
503-986-5200
www.oregon.gov/DSL
Date: 4/22/2020



Map Producer: bhelm

Former Petroleum Terminal No. 0022 and Manufactured Gas Plant, Astoria, Oregon

Remediation Cost Estimate - In-Water Long Term

(30 year original duration, 1 year completed, 29 years remaining) Monitoring & Maintenance

January 2022

2022 Sediment Remediation Construction Costs		
Item	Cost	Notes
Construction Cost	\$0	no repairs planned
CM Cost	\$0	no repairs planned
Subtotal	\$0	

Annual O&M In Water SMA - 30 years original duration (1 year completed, 29 years remaining)		
In-Water Inspections (yr. 2-5) and reporting	\$5,000 annual	
In-Water Inspections (yr. 6-10) and reporting	\$5,000 annual	
In-Water Inspections (yr. 11-30) and reporting	\$5,000 annual	Assume once every
Storm event inspections	\$5,000 10 yr.	
In-water Cap repair	\$0 construction cost	Assume once every 5 yr., 10% of initial
Present value yr. 1-5	\$18,365	
Present value yr. 6-10	\$19,673	
Present value yr. 11-30	\$52,140	
Present value storm insp.	\$9,018	
Present value in-water cap repair	\$0	
Present Value of O&M	\$99,197	

Total - 29 Year remaining O&M	\$99,197
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Present Value Calculation			
Present value factor			
5 yr. annual, 3.5%	3.673		
Present value factor			
10 yr. annual, 3.5%	7.608		
Present value factor			
30 yr. annual, 3.5%	18.036		
		30 yr.	10 yr.
interest	3.50%	3.50%	3.50%
periods	29.00	9.00	4.00
payment	1.00	1.00	1.00

Prepared by:
DOF, R.Webb

1/18/2022