

Archaeological Monitoring and Inadvertent Discovery Plan for the Sediment Sampling, Rayonier Mill Site – “Under Dock” and Nearshore Areas, Clallam County, Washington

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1.0 INTRODUCTION AND PROJECT DESCRIPTION

Dalton, Olmsted & Fuglevand (DOF) subcontracted with WestLand Engineering & Environmental Services, a Trinity Consultants Team, to prepare a Monitoring and Inadvertent Discovery Plan (MIDP). This plan is to be followed during geotechnical sampling (Sampling Project or Project) that is in support of remediation efforts at the former Port Angeles Rayonier Mill Site specific to the “under dock” and nearshore locations. The procedures outlined in this document should be followed during all ground-disturbing activities that are associated with this Sampling Project.

Remediation at the Port Angeles Rayonier Mill Site (Project) is located at 700 N. Ennis, Port Angeles, Washington, within Section 2 of Township 30 North (T30N), Range 6 West (R6W). The Project is located on the eastern side of Port Angeles Harbor (Harbor) in Clallam County, Washington, on the north side of the Olympic Peninsula, on the shoreline of the Strait of Juan de Fuca (**Figure 1**). The Project is partially located on land leased by the Washington State Department of Natural Resources and within Port Angeles city limits. The Project is zoned mostly as heavy industrial with an area along the southern margin zoned for public buildings and parks (DOF 2024; Windward 2021).

This Project has been assigned Department of Archaeology and Historic Preservation (DAHP) project number 2025-06-03595; and FSID #19 and CSID #2270 from the Department of Ecology (DOE) with cleanup being completed under Agreed Order (AO) Number DE 6815.

1.1 Project Description

On behalf of Rayonier A.M. Properties, LLC (RAMP), DOF will be conducting geological sampling and testing at the former Rayonier Port Angeles Mill Site. The Rayonier pulp mill operated from 1930 to 1997 and subsequently dismantled. While the mill was in operation, sulfite and acid were utilized to break down wood chips into cellulose fibers. This activity caused contamination of the air, soil, groundwater, and sediments within the site. Cleanup efforts have been ongoing since 1999, with a majority of the “hot spots” having been addressed (DOE 2025). A Draft Pre-Remedial Design Work Plan (PRDWP) was submitted to DOE for review on August 30, 2024, for the current project. DOE provided comments to the current PRDWP that included redistribution of sediment sample locations and an updated MIDP previously provided by Historical Research Associates, Inc. (HRA) (Durkin 2019) to include the Memorandum of Agreement (MOA) from 1999 monitoring provisions and to be specific to this Project.

This Project will be conducted for the cleanup efforts of the mill region known as the “under-dock” (Sediment Management Area [SMA]-3) and nearshore (SMA-4) areas (**Figure 2**). The potential remedial actions include dredging, enhanced monitored natural recovery, or thin-layer capping; the action will be dependent on the results of analytical sediment chemistry data and hydrodynamic modeling. This MIDP may be supplemented to address future in-water or upland activities associated with any selected remedial action. Efforts for sediment sampling include the mobilization of a floating derrick as well as surface and sub-surface sampling equipment. Removal of timber deck stringers will be necessary to allow access to the

sediment surface for the sampling equipment. Removal of dock pilings may also be necessary but would require a Pilot Study (DOE 2025; DOF 2024:1).

To complete this Project, 24 sampling locations have been proposed (see **Figure 2**). There are thirteen (n=13) within the dock area, three (n=3) locations east of the dock, and eight (n=8) locations west of the dock. Surface collections of 0–10 cm will be sampled utilizing a grab sampler, with intertidal surface collections of 0–45 cm to be collected with a vibracore. Sub-surface sediment cores will range in depths of 0 to beyond 8 feet.

1.2 Regulatory Context

An MOA, consisting of four inter-related agreements, was developed by the DOE with USEPA, Rayonier, Inc. and the Lower Elwha Klallam Tribe (LEKT) in 1999 (collectively, 1999 MOA). The 1999 MOA addresses the actions necessary for cleanup, acknowledges LEKT's right to concur in all major cleanup decisions, and requires LEKT approval of any archaeological monitor at the site and allows LEKT to have its own monitor present to act as a liaison between parties. Disposition of any cultural resources affected by activities carried out under the PRDWP is subject to concurrence of the Tribe. DOE, RAMP, and LEKT will ensure that archaeological monitoring is acceptable to all parties and will be instituted for all ground-disturbing activities carried out under the PRDWP and any subsequent cleanup.

The current Project is subject to Section 815 of the Model Toxics Control Act (MTCA). A United States Army Corps of Engineers (USACE) permit will be required for the in-water work associated with this Project but has yet to be obtained. Therefore, cultural resources review will be conducted under MTCA, Washington Administrative Code (WAC) 173-340.

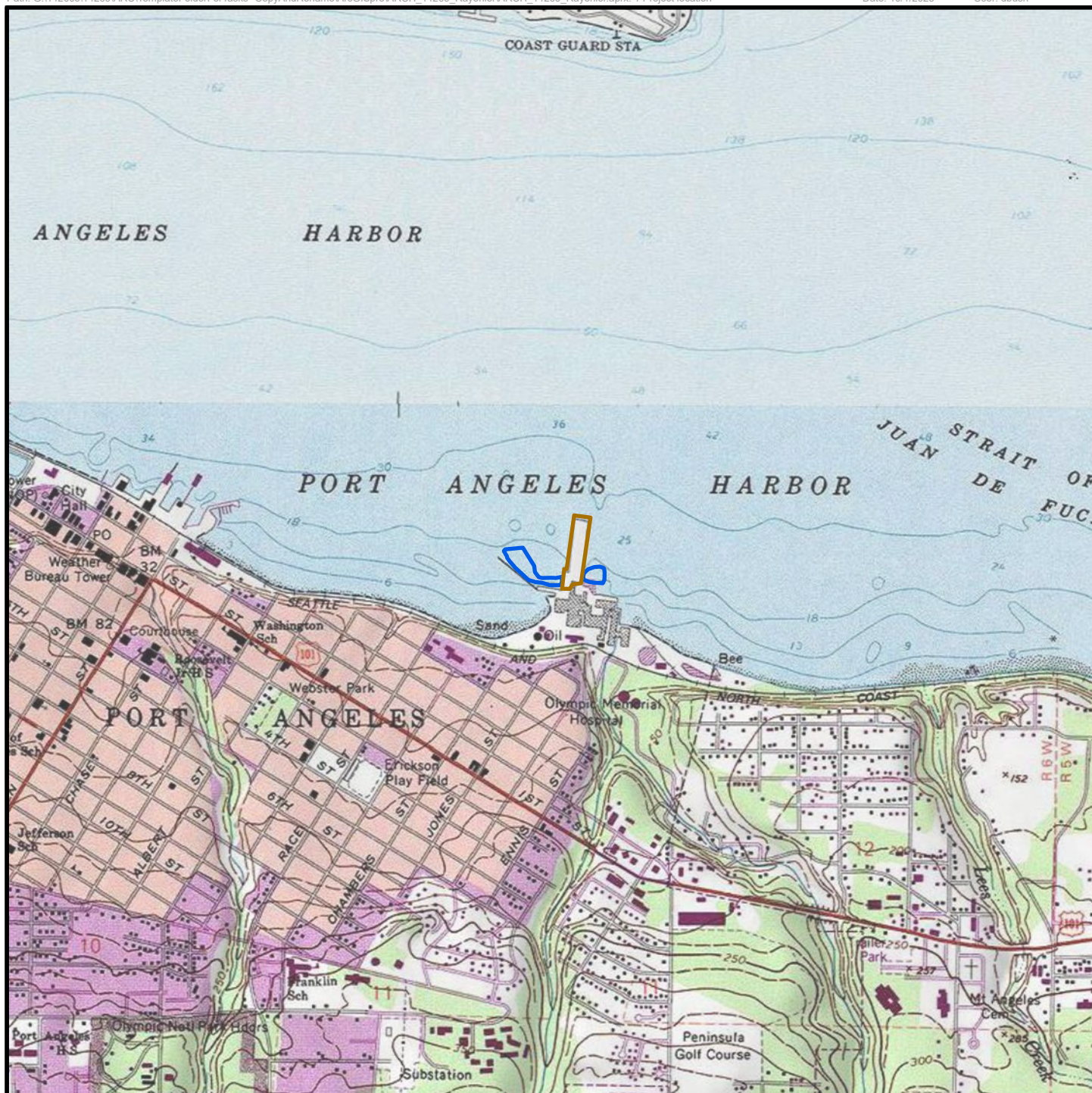
Intertidal, subtidal, and in-water sampling will be conducted under a USACE permit and will be subject to Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations 36 CFR 800. These regulations consider the potential effects of a project on cultural resources. As a lead agency, USACE will consult with DAHP and affected Tribes regarding project findings.

1.3 Proposed Area of Potential Effects

For the purpose of this monitoring plan, the proposed area of potential effects (APE) will consist of the 24 sampling locations in the SM-3 and SM-4 areas (**Figure 2**).

1.4 Agency and Tribal Consultation

Sydney Hanson, on behalf of DOE on June 4, 2025, emailed LEKT, Port Gamble S'Klallam Tribe, Jamestown S'Klallam Tribe, and Suquamish Tribe advising of intent to require project-specific MIDP for this sediment sampling (DOE 2025). LEKT has continued to consult with DOE and comment on this MIDP.



T30N, R6W, a Portion of Section 2,
Clallam County, Washington,
Port Angeles USGS 7.5' Quadrangle,
Projection: NAD 1983 UTM Zone 10N

Legend

-  Sediment Management Area 3
-  Sediment Management Area 4



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A horizontal scale bar with tick marks at 0, 300, and 600. The word "Meters" is written to the right of the 600 mark.

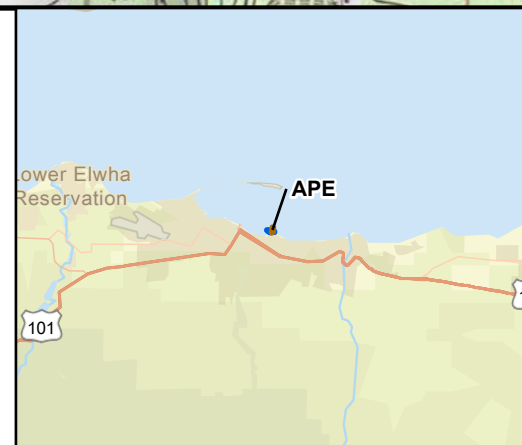


Figure 1. Project location map



T30N, R6W, a Portion of Section 2,
Clallam County, Washington,
Image source: Maxar (3/17/2024),
Projection: NAD 1983 UTM Zone 10N

Legend

- Sampling Locations
- Sediment Management Area 3
- Sediment Management Area 4

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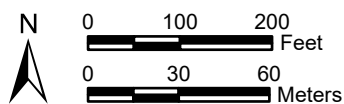


Figure 2. Area of Potential Effects

2.0 ENVIRONMENTAL CONTEXT

2.1 Topography and Geology

The APE is located on the Olympic Peninsula physiographic and geologic province (Franklin and Dyrness 1988). This province is bordered by the Puget Trough lowlands to the east, the Olympic Mountains to the south, the Strait of Juan de Fuca to the north, and the Pacific Ocean to the west. The modern topography of region has been influenced by glaciation (Franklin and Dyrness 1988). During the Vashon Glaciation, the Cordilleran ice sheet extended over a majority of the Olympic Peninsula with the Juan de Fuca lobe encompassing 62 miles west of Washington coastline with the Puget lobe encompassing east of the Juan de Fuca lobe, extending south just past current-day Olympia (Durkin 2019; Easterbrook 2003). The Juan de Fuca lobe retreated more rapidly due to the rising sea levels depositing glacial outwash throughout the Olympic Peninsula, with the Puget lobe retreating to Whidbey Island by 13,400 years ago (Dethier et al. 1995; Durkin 2019; Easterbrook 2003; Mosher and Hewitt 2004). The APE is east of Ediz Hook, a significant local geologic feature formed 9,000 years ago from glacial sediments (White 2009). It was created by sediment transport processes tied to the rise of water in the Strait of Juan de Fuca (Lewarch et al. 2005). Due to the rapid increase of sea levels between 11,000 and 5,000 years ago, erosional deposition drastically changed surface elevations causing sand deposits to form platforms effectively developing Ediz Hook approximately 5,000 years ago. Ediz Hook arced eastward approximately 3,000 years ago secluding what we now call Port Angeles Harbor (Lewarch et al. 2005).

The APE is within Port Angeles Harbor, directly east of Ennis Creek. The inland portion of the APE has been heavily modified by the development of Port Angeles and the construction of the Rayonier facilities. This is further evidenced by the surface geology of the APE, which indicates the sediments are modified land (Qml) and most likely reworked by excavation to modify the topography (Durkin 2019; Schasse et al. 2004). Historically, this region has been built up and extended by fill materials for over 100 years. Historic maps, photographs, and stratigraphic studies conducted by previous cultural resource investigations, including the studies as part of the Číxwicən excavations within the LEKT property to the west, identified historic fill and debris dating from 1913 to the 1980s (Lewarch et al. 2005).

2.2 Soils

The APE is characterized as modified land (Schasse et al. 2004). Modified land is described as consisting of soil, sediment, or other geologic material reworked by excavation and/or redistribution to modify topography (DOE 2025; Schasse et al. 2004). The sediments mapped in the APE are “beach” (NRCS 2025) containing no analytical data. Abutting south of the APE are Dystric Xerorthents consisting of colluvium derived from glacial drift parent material typically found on bluffs (NRCS 2025).

2.3 Paleoclimate and Vegetational Shifts

Analysis of pollen samples gathered from several locations in Western Washington indicate that approximately 13,000 to 12,000 years ago, the region underwent climatic change resulting in a cooler, drier climate. The shift in climate enabled a new ecosystem to develop consisting of lodgepole pine (*Pinus contorta*), sedges (*Cyperaceae* sp.), sage (*Artemisia* sp.), and varieties of grasses and herbs (Barnosky 1984; Barnosky et al. 1987:294–295; Brubaker 1991:17, 19–20; Durkin 2019; Whitlock 1992:9–12, 14–15). As temperatures began to rise, Douglas-fir (*Pseudotsuga menziesii*), western hemlock (*Tsuga heterophylla*), and red alder (*Alnus rubra*) began to dominate the landscape between 12,000 to 7,000 years ago (Barnosky et al. 1987:295-296; Brubaker 1991:19–22; Durkin 2019; Whitlock 1992:15–18).

The APE is within the Sitka Spruce vegetation zone, a variant of the Western Hemlock zone. The primary difference between these two zones is that the Sitka Spruce zone is closer to the ocean with the Western Hemlock zone being more inland and around the Puget Lowland (Franklin and Dyrness 1988). This coastal forest zone ecological system extends north to Alaska and south into California. Common vegetation within this zone is Sitka spruce (*Picea sitchensis*), western red cedar (*Thuja plicata*), western hemlock (*Tsuga heterophylla*), Douglas-fir (*Pseudotsuga menziesii*), and red alder (*Alnus rubra*). This area typically has thick understory consisting of salmonberry (*Rubus spectabilis*), brackenfern (*Pteridium aquilinum*), salal (*Gaultheria shallon*), evergreen huckleberry (*Vaccinium ovatum*), black twinberry (*Lonicera involucrata*), deer fern (*Blechnum spicant*), beadruby (*Maianthemum dilatatum*), sword fern (*Polystichum munitum*), and yellow skunk cabbage (*Lysichiton americanum*) (Franklin and Dyrness 1988; NPS 2025a).

2.4 Fauna

The Olympic Peninsula is rich with marine and terrestrial fauna. Port Angeles Harbor and the surrounding vicinity contain both a forest and access to the ocean, creating a vibrant ecosystem with rich biodiversity that includes freshwater streams, rivers, ponds, swamps, and tidal areas. This provided a diversity of food resources for inhabitants occupying the region. Common bivalves include butter clam (*Saxidomus giganteus*), horse clam (*Schizothaerus nuttallii*), littleneck clam (*Protothaca staminea*), bay mussel (*Mytilus edulis*), and basket cockle (*Clinocardium nuttallii*). Marine species include river otter (*Lutra canadensis*), harbor seal (*Phoca vitulina*), and northern fur seal (*Callorhinus ursinus*). Seasonal marine mammals include the humpback whale (*Megaptera novaeangliae*), harbor porpoise (*Phocoena phocoena*), and orca (*Orcinus orca*). Terrestrial mammals consist of Pacific marsh shrew (*Sorex bendirii*), coyote (*Canis latrans*), cougar (*Puma concolor*), bobcat (*Lynx rufus*), Roosevelt elk (*Cervus elaphus roosevelti*), black-tailed deer (*Odocoileus hemionus columbianus*), snowshoe hare (*Lepus americanus*), porcupine (*Erethizon dorsatum*), and various types of vole, shrew, chipmunk, rat, and mouse (Durkin 2019; NPS 2025b, 2025c; Schalk and Yesner 1988; Suttles and Lane 1990; Wessen 1990). The freshwater streams and rivers provided spawning locations for several species of anadromous fish including several species of salmonoids (NPS 2025b, 2025c).

3.0 CULTURAL CONTEXT

3.1 Precontact Period

The archaeological record of the Olympic Peninsula indicates long-term occupation of the region beginning approximately 13,800 years ago, shortly after the retreat of the continental glaciers. The Manis Site (45CA218) is the earliest recorded archaeological site in the peninsula, which consisted of remains of mastodon within a peat bog that included a human-made bone point lodged in a rib fragment along with various lithic artifacts (Durkin 2019; Gustafson et al. 1979; Morgan 1999; Waters et al. 2011). The Orcas Island (*Bison antiquus*) Site dates to the early Holocene, around 11,990 years before present (BP) (Durkin 2019; Kenady et al. 2011). This site consisted of remains of an extinct species of bison. Other excavations along the peninsula that provide a rich archaeological land-use history include several sites associated with the realignment of Highway 101 (Uldall and Ferris 2021; Morgan 1999), Číxwicən (Ferris 2021; Kanipe et al. 2006; Larson and Gillis 2005; Lewarch et al. 2005), and at the Ozette village site (45CA34) (Ferris 2021; Samuels 1991).

There have been multiple chronologies to describe the timing of cultural change throughout the Pacific Northwest. Regional chronology of the Olympic Peninsula was developed by Bergland (1983, 1984), which consists of five periods: Early Prehistoric (12,000–6000 years BP), Middle Prehistoric (6000–3000 BP), Early Maritime (3000–1000 BP), Prehistoric Northwest Coast Pattern (1000–200 BP), and Historic (200 BP–Present) (Bergland 1983, 1984; Durkin 2019; Wessen and Welch 1987: 19–21). Earliest evidence of human occupation is generally recognized by fluted projectile points, leading to gradual shifts from hunter-gatherer subsistence strategies, to semi-sedentary groups, to permanent villages, to increased social complexity, and specialized reliance on marine resources (Durkin 2019).

Land-use patterns described by Schalk (1988) described an early, very mobile, land-based foraging-hunting strategy that lasted from the retreat of the last glaciation to the closure of the Douglas-fir forests around 6000 BP. At this time, subsistence pivoted to an aquatic approach that developed sedentary residential patterns that were oriented around salmon runs by 3000 BP. From 3000 to 1000 BP, a marine-mammal and deep-sea fish focused economy had developed when salmon was not available (Durkin 2019; Schalk 1988:85-121; Schalk et al. 1996:3.2).

The Olympic Peninsula during the late Holocene (after 4000 BP) is characterized by the presence of both marine and terrestrial lifeways. The inner coast and riverine systems provided both aquatic and terrestrial resources while the outer coast provided solely maritime resources. The adaptations to both lifeways provided a rich economic specialization that included shells, artistic objects, and a variety of tools for hunting, fishing, woodworking, and plant processing made from stone, bone, and wood (Durkin 2019). Seasonal occupation of locations within the inland region combined with outer coast semipermanent and/or

permanent villages with year-round resources , replaced flaked tools with many ground stone and bone tools after 1000 BP (Bergland 1984:60; Durkin 2019; Nelson 2006:6; Schalk 1988:107-108; Wessen and Welch 1987:20).

There have been several archaeological sites within the Olympic Peninsula that have been radiocarbon dated to the past 3,000 years. A majority of these sites are situated on the north to northwestern coasts (Durkin 2019). These sites have been characterized as either “wet” (permanent anerobic conditions) or “dry” (alternating wetting and drying conditions) (Durkin 2019). West of the APE, at the base of Ediz Hook in Port Angeles, the village and burial ground Číxwicən (also referred to as *Tse-whit-zen* or *Tcīwītsen*) has been dated to an occupation of 2700 BP to early twentieth century (Durkin 2019, Gill 2005; Lewarch et al. 2005; Schumacher and Gill 2005; Silverman et al. 2010:14). This site (45CA523) contains over 1,000 features and artifacts including shell middens, hearth features, structural postmolds, ground and chipped stone lithics, incised stones, shaped bone and antler tools, decorative items, and faunal remains.

3.2 Contact Period

The *nəxʷsłáy'em'* (Salish word), Klallam (or Clallam) means “strong people,” and they were the traditional inhabitants and current habitants within the region of the APE (Durkin 2019; Gunther 1927:174; Suttles and Lane 1990). Linguistically, they spoke Central Coast Salish with their villages ranging from the north shore of the Olympic Peninsula from the Hoko River to Port Discovery Bay, with some territory extending into the San Juan Islands and Hood Canal, and inland to the crest of the Olympic Mountains (Gunther 1927; Suttles and Lane 1990; Uldall and Ferris 2021). The Klallam were strongly related to the First Nations of Saanich, Songish, and Sooke from the southern portion of Vancouver Island. They had close ties to inhabitants of the Puget Sound, east of the San Juan Islands, and groups along the western side of the Olympic Peninsula. These groups included the Lummi, Samish, and Skokomish (Durkin 2019; Gunther 1927:177, 181–182; Suttles and Lane 1990).

There are three known traditional Klallam villages near the Project APE. The aforementioned Tse-whit-zen located west of the APE near Ediz Hook Lagoon (Durkin 2019; Gunther 1927), the l'e'nis village directly east of the APE at the mouth of Ennis Creek (Durkin 2019; Gunther 1927), and TSAHLh-met east of the APE, near the mouth of Morse Creek (Durkin 2019).

As skilled fishers, hunters, and gatherers, the Klallam had economic subsistence strategies much like those of their neighbors. This included a pattern of seasonal movements that were dependent on the availability of different types of resources such as plant or shellfish collecting as well as hunting and fishing. Semipermanent to permanent winter villages were marked by the presence of large plank longhouses. Seasonal camps were small, pole-framed lodges covered with brush or woven mats (Durkin 2019). Their economic activities were oriented toward marine and riverine environments.

Just as other Coastal Salish groups, the Klallam were skilled craftsmen and technicians who produced a wide range of goods from plant, bone, and stone materials (Durkin 2019). They were particularly skilled with wood and plant fibers, creating a variety of basketry, cordage, nets, clothing, and over woven objects. They relied heavily on cedar to develop plank longhouses, canoes, boxes, and smaller utilitarian items. Other important items included bone, stone, and shells that were used for cutting and ornaments (Durkin 2019; White 2013). Today, three modern communities of the Klallam remain: Lower Elwha Klallam, Jamestown S'Klallam, and Port Gamble S'Klallam. The Lower Elwha Klallam include the descendants that have historically occupied Port Angeles Harbor in the vicinity of Ediz Hook (White 2013).

3.3 Historic Period

Francisco de Eliza headed the Spanish exploring expedition in 1791 and was the first to visit the area, with the British explorer George Vancouver, who named Port Angeles Harbor, following suite in 1792. Early colonists included Angus Johnson, Alexander Sampson, Rufus Holmes, and William Winsor in 1856 (Durkin 2019; Oldham 2007b). The area received increased colonization after the mid-1800s by Euro-Americans due to the passing of the Homestead Act of 1862.

First attempts to establish a town at the Harbor was in 1859 by Holmes and Winsor. They developed the Cherbourg Land Company, and in 1861 investor Victor Smith moved the port of entry to Port Angeles and petitioned a plat for a townsite from the USACE. Unfortunately, in 1865 Smith died in a shipwreck and plans to develop a town disintegrated (Durkin 2019; Oldham 2007b). It wasn't until the logging industry took foothold in the region that development occurred. The Morse family began building in 1883, which included a hotel, general store, and a wharf in Port Angeles (Durkin 2019). Soon railroads were developed to bring logs to Port Angeles to be loaded onto ships. The rail line nearest the APE was constructed by the Seattle and Olympic Railroad Company that was operated by the Chicago, Milwaukee, St. Paul and Pacific Railway by 1912. This line was multifunctional and carried a variety of freight as well as passengers and extended west beyond Port Angeles (Durkin 2019; Nelson 2006:9).

It wasn't until 1887 that Port Angeles was established as a town. This was due to the Puget Sound Cooperative Colony (PSCOC) developing a community located on Ennis Creek, east of the APE. The community quickly grew to over 200 people, as individuals left Seattle in search of a better life. PSCOC promised improved living conditions for the working class and built the first sawmill and community buildings. The colony was led by George Smith but was short-lived as commercial ventures failed and radicalism within the colony began in 1888 (Durkin 2019). Further discourse mixed with the Panic of 1893 and decline of the logging industry led to the dissolution of the colony in 1904 (Durkin 2019; Oldham 2007a).

Though the PSCOC was struggling, the whole of Port Angeles was not. By 1890, the population was over 3,000 and became the county seat for Clallam County (Durkin 2019). By 1914, Port Angeles opened a

county courthouse, regraded the downtown area, and began construction on the Elwah River Dam. Soon after, the pulp mill industry began in Port Angeles with three mills being fully operational by 1930 (Durkin 2019; Oldham 2007b).

As part of the expansion, the lumber mill along Ennis Creek began construction in 1917. The federal government owned the mill as United States Spruce Production Corporation. The intention of this mill was to aid in the construction of aircraft by providing a supply of spruce lumber. When World War I ended in 1918, the demand for spruce declined and the mill never became operational (Durkin 2019; Robbins et al. 1997). Original mill designs indicate the mill was built on 11 feet of fill (Durkin 2019; Robbins et al. 1997). Olympic Forest Products acquired the mill in 1929, and then demolished much of the mill and constructed the dock and associated bulkheads; they also realigned Ennis Creek to the east (Durkin 2019). The mill was operated by Olympic Forest Products until 1937 when it was purchased by Rainer Pulp and Paper Company and the Grays Harbor Pulp and Paper Company. The merger formed Rayonier and continued to operate and expand until 1996 and subsequently closed in 1997 (Durkin 2019; Robbins et al. 1997).

Works Progress Administration helped Port Angeles through the Great Depression. These projects included the construction of the Army and Naval facilities as well as the Coast Guard Air Station located at Ediz Hook. When World War II began, the demand of timber increased, causing the mills along the water to become operational again (Durkin 2019). Operation of the mills ended in the 1970s due to environmental regulations that were not previously established. Today, the major industries of Port Angeles include tourism, shipyards, hospitals, and government (Durkin 2019; Oldham 2007b).

4.0 ARCHIVAL RESEARCH

4.1 Previous Cultural Resources Investigations

Twenty-five previous cultural resource studies have been conducted within 1 mile of the APE (**Table 1**). Six previous cultural resource studies overlap with the APE, including five studies completed as part of this Project.

The Rayonier Mill Site was first investigated for cultural resources by Larson Anthropological Archaeological Services (LAAS) in 1997. Their investigation was for the Rayonier Port Angeles Mill dismantling and remediation project (Robins et al. 1997). Their results included the identification of precontact archaeological site 45CA468, which consisted of shell fragments and lithic artifacts near the bank of Ennis Creek approximately 0.5 km south of the shoreline. Research indicated it may be associated with an ethnographically documented Klallam winter village that was mapped at the mouth of Ennis Creek (Durkin 2019; Robbins et al. 1997:10). Results of the LAAS survey included recommendations for archaeological monitoring of ground-disturbing work conducted for work above the high-tide line, which includes the location of 45CA468 and the historic location of the PSCOC.

As part of cleanup-related geotechnical boring and soil sampling, LAAS monitored ground-disturbing work at the mill site in 2003. The archaeological monitoring resulted in the identification of both modern and historic-period debris. As the artifacts were found in disturbed context, no archaeological resources were documented as a result of the project (Durkin 2019; Trudel and Larson 2003). Subsequent monitoring and cultural resource surveys have resulted in negative findings (Adams and Miller 2019; Durkin et al. 2020; Nelson 2006).

Table 1. Previous Cultural Resources Investigations Within 1 Mile of the APE

NADB #	Reference	Report Title	Distance (mi.) and Direction From APE	Cultural Materials
1693766	Brian Durkin, Matt Warren, Ron Adams	<i>Archaeological Monitoring Report for In-water Sediment Sampling and Upland Soil Sampling, Former Rayonier Port Angeles Mill Site, Port Angeles, Clallam County, Washington</i>	Overlaps	None
1681313	Derek S. Beery	<i>Pre-Construction Archaeological Sampling Report: Combined Sewer Overflow, Project Phase 1</i>	0.1 (S)	None
1343793	Leonard A. Forsman, Lynn L. Larson	<i>Letter to Jack Anderson Regarding Final Port Angeles Mill-Finishing Room/Ennis Creek Excavation and Waterfront Trail Bridge Abutment Excavation Archaeological Monitoring</i>	0.2 (S)	None

NADB #	Reference	Report Title	Distance (mi.) and Direction From APE	Cultural Materials
1343891	Jeff Robbins, Lynn L. Larson	<i>Letter to Paul Perlwitz Regarding Cultural Resource Assessment of the Water Filter Plant and the South Property, Rayonier Incorporated, Port Angeles Mill</i>	0.1 (S)	None
1343893	Jeff Robbins, Lynn L. Larson	<i>Letter to Jack Anderson Regarding Cultural Resource Monitoring of Excavations at the Finishing Room, Rayonier Port Angeles Mill</i>	0.1 (S)	None
1343843	Leonard A. Forsman, Lynn L. Larson	<i>Letter to Jack Anderson Regarding Cultural Resource Monitoring for the Water Pipeline Reroute Trench at the Rayonier Port Angeles Mill</i>	0.1 (S)	None
1697681	Derek S. Beery	<i>PREHISTORIC LAND-USE PLANNING ON PORT ANGELES HARBOR: an Urban Industrial Predictive Model of Ethnographic and Prehistoric Period Aboriginal Site Probabilities.</i>	0.9 (SE)	None
1349493	Charles M. Hodges, Alex Stevenson	<i>Cultural Resources Assessment for the Juan De Fuca Cable Project</i>	Overlaps	None
1349873	Charles Hodges, Yonara Carilho	<i>Cultural Resources Assessment for the Port Angeles CSO Alternative 7</i>	<0.1 (S)	None
1680016	Derek S. Beery	<i>Combined Sewer Overflow Project: Cultural Resources Assessment for CSO Phase 1 Project, City of Port Angeles</i>	<0.1 (S)	None
1695645	Alicia Valentino, Chanda Schneider, Katie Wilson, Malia Bassett, Bryan Hoyt, Chris Lockwood	<i>Race Street Multimodal Improvements Project, Clallam County, Washington – Cultural Resources Assessment</i>	0.5 (SW)	None
1343900	Joan M. Robinson	<i>A Cultural Resources Survey of Washington State Department of Transportation's SR 101: Golf Course Road to Myrtle Street Project</i>	0.9 (SE)	None
1698081	Margaret Nelson, Sarah Thompson	<i>Archaeological Monitoring of Phases 2 and 3 Testing for the Upland Data Collection Project at the Former Rayonier Port Angeles Mill, Clallam County</i>	<0.1 (S)	None
1344070	Jeffrey R. Robbins, Lynn L. Larson	<i>Letter to Paul Perlwitz Regarding Cultural Resource Assessment in Association With the Dismantling and Remediation Project for the Rayonier, Incorporated Port Angeles Mill</i>	Overlaps	None

NADB #	Reference	Report Title	Distance (mi.) and Direction From APE	Cultural Materials
1344093	Jeffrey R. Robbins, Leonard A. Forsman, Lynn L. Larson	<i>Rayonier, Incorporated Port Angeles Mill, Port Angeles, Dismantling and Remediation Project Cultural Resource Assessment</i>	Overlaps	None
1342395	Stephanie E. Trudel	<i>Letter to Jack Anderson Regarding Archaeological Monitoring for Geotechnical Boring and Soil Sampling</i>	0.1 (S)	None
1694471	Dean R. Weaver	<i>Cultural Resources Inventory for the WSDOT US101 Lees and Ennis Creek Remove Fish Barrier Projects</i>	0.9 (SE)	None
1334591	Paul S. Solimano, Lynn L. Larson	<i>Letter to Gary Kentworthy Regarding Port Angeles Waterfront Trail Phase V</i>	0.1 (SW)	None
1354984	Krista Jordan-Greene	<i>Proposed U.S. Border Patrol Station, 110 Penn Street, Port Angeles</i>	0.7 (S)	None
1692733	Ron Adams, Heather Lee Miller	<i>Partial Dock, Trestle, and Foundation Deck Removal</i>	Overlaps	45CA801, 45CA803
1340419	Leonard A. Forsman, Dave Iversen, Lynn L. Larson	<i>Letter to Jack Anderson Regarding Earthen SSL Berm Removal Archaeological Monitoring</i>	0.2 (SE)	None
1343894	Jeffrey R. Robbins, Lynn L. Larson	<i>Letter to Gary Kentworthy Regarding Cultural Resource Monitoring for Construction Excavation of the Peabody Street Storm Outfall Pond Project</i>	0.8 (W)	None
1343828	Stephenie Kramer, Lynn L. Larson	<i>Letter to Jack Anderson Regarding Archaeological Monitoring for the Stormwater Conveyance Project at the Rayonier Port Angeles Mill</i>	0.2 (S)	None
1698080	Margaret A. Nelson	<i>Cultural Resource Monitoring at Two Remediation Sites at the Former Rayonier Port Angeles Mill, Clallam County, Washington</i>	Overlaps	None
1698081	Derek S. Beery	<i>PREHISTORIC LAND-USE PLANNING ON PORT ANGELES HARBOR: an Urban Industrial Predictive Model of Ethnographic and Prehistoric Period Aboriginal Site Probabilities.</i>	<0.1 (S)	None

4.2 Previously Recorded Archaeological Resources

Seven previously recorded archaeological sites are within 1 mile of the APE (**Table 2**). Two sites, 45CA801 and 45CA803, overlap within the APE. Both sites are historic-period era and associated with the Rayonier Mill. Site 45CA801 is the Rayonier Pier that was constructed between 1929 and 1930, and was determined not eligible for listing in the National Register of Historic Places (NRHP) (Adams 2019a). Site 45CA803 is a concrete foundation located southeast of the pier and likely associated with a warehouse utilized by the Olympic Forest Product Company during the 1930s. This site was also determined as not eligible for listing in the NRHP (Adams 2019b).

Table 2. Previously Recorded Archaeological Resources Within 1 Mile of the APE

Smithsonian #	Type and Description	Eligibility	Distance and direction from API
45CA458	Historic-period railroad grade, Chicago, Milwaukee, St. Paul & Pacific Railroad	Not eligible	<0.1 (S)
45CA468	Precontact shell midden	Unevaluated	0.2 (S)
45CA618	Historic refuse scatter	Unevaluated	0.7 (SE)
45CA801	Historic-period logging properties, water structure	Not eligible	Overlaps
45CA802	Historic-period logging properties	Not eligible	0.1 (S)
45CA803	Historic-period logging properties	Not eligible	Overlaps
45CA804	Historic-period railroad grade	Not eligible	<0.1 (SE)

4.3 Cemeteries

There is one cemetery within 1 mile of the APE. 45CA236 is a burial site located near the mouth of Ennis Creek. The cemetery is approximately 0.1 mile southeast of the APE and is associated with the PSCOC and the Klallam (Durkin 2019; Harper 1969). Precontact, the Klallam occupied this site and built a winter village and have stated that they previously utilized this location as a burial site as well (DOE 2025; WA DAHP 1974).

4.4 Historic Maps and Aerial Photographs

The 1879 GLO map is the earliest depiction of the APE. At the time, the APE was within an area labeled “Port Angeles Reservation” and Whites Creek was flowing into the harbor to the south. No other development is indicated. By 1890, the map of Port Angeles depicts growth but no subdivisions (Lewis 1890). A 1942 map depicts the Ennis Creek Waterway at the location of the Rayonier Mill (Historic Map Works 2025) but it isn’t until 1949 that Port Angeles Div’ & Rayonier, Inc. saw and pulp mill is depicted in great detail, including the shipping dock (45CA801) and the warehouse (45CA803) (Sanborn 1949).

A 1981 aerial image of the APE depicts the operational Rayonier Mill. By 2006, the upland mill structures have been demolished. The dock remains; however, all other structures that were present on it have been removed (Historic Aerials 2025).

4.5 DAHP Risk Assessment Model

WISAARD identifies the Project location as “high risk” for encountering cultural resources. DOE made a preliminary determination of a high potential to impact cultural resources and historic properties for this project, which it “retained” after initial consultation with DAHP and four tribes, including LEKT (Hanson, DOE, July 3, 2025).

5.0 EXPECTATIONS FOR ARCHAEOLOGICAL MATERIALS

WestLand developed a likelihood of encountering archaeological materials based on environmental context, cultural context, and background research, as well as the recommendations provided by the DOE (DOE 2025). The expectation is intended to assist DOF, DAHP, DOE, USACE (once permitted), the monitoring archaeologist(s), affected Tribes, and other consulting parties with decision-making during archaeological monitoring of this Project.

WestLand expects a moderate likelihood of encountering archaeological deposits. This is based on the proximity to other precontact and historic archaeological sites and villages, previous archaeological investigations within the APE, history of land use, and surface geology. The APE is within the Port Angeles Harbor, near known ethnographic Klallam villages and burial sites. Geological research indicates the APE has been heavily disturbed by historic-era to modern activity. Fluctuations in sea-water levels have reshaped shorelines due to fluvial erosion and human activity. Sites, such as 45CA523, have been located in historically modified, or filled, or near the modern shoreline.

WestLand expects a moderate likelihood of encountering historic-period cultural materials given the land use of the APE as a lumber mill. Historic features and artifacts encountered would most likely be associated with the Rayonier, Olympic Forest Products, or the PSCOC and may include railroad spikes, brick, nails, glass, metal refuse, building foundations, and other objects related to the operation of the mill.

6.0 PROCEDURES FOR ARCHAEOLOGICAL MONITORING AND INADVERTENT DISCOVERY PLAN (MIDP)

Previous investigations within the region have indicated that native sediments are approximately 3 feet below the current surface. The strategies for this Project include surface samples 0–45cm (1.6 ft.) utilizing a grab sampler or a vibracore in intertidal areas and sediment coring from 0 to beyond 8 ft. Per recommendations from the DOE, a professional archaeologist will monitor sediment sampling activities that will extend into native soils (i.e., below 3 ft.), which limits monitoring to only the sub-surface sediment coring samples for this Project.

6.1 Procedures for Archaeological Monitoring for Sub-Surface Samples

As stated in Section 1.2, sub-surface sampling is required to be in compliance with all applicable laws pertaining to archaeological resources (RCW 27.53, 27.44, and WAC 25-48) and to human remains (RCW 68.50). Samples collected in-water will be subject to Section 106 of the NHPA and its implementing regulations (36 CFR 800). Failure to comply with these requirements could result in a misdemeanor and possible civil penalties and/or constitutes a Class C felony.

The steps outlined below will be followed during archaeological monitoring in the sub-surface sampling APE for the Project.

1. WestLand will arrange for a professional archaeologist who meets the Secretary of the Interior's (SOI's) qualifications (36 CFR part 61; required by the State of Washington in RCW 27.53.030.8) to provide oversight for all cultural resources related activities on the site. If an archaeologist who meets the SOI is unavailable but an experienced archaeologist (e.g., one with several years of experience in a variety of field situations) is available to monitor ground-disturbing activities, they will be allowed to do so provided that WestLand has filed a "Supervisory Plan for Archaeological Monitoring" with DAHP prior to their work at the site. A sample form is located in **Appendix A**.
2. Prior to the commencement of sampling activities, the monitoring archaeologist will brief DOF staff and contractors carrying out the sampling (e.g., drillers, excavators, etc.) about potential cultural resource issues.
3. The monitoring archaeologist will also explain the purpose of the monitoring, how it will be conducted, and what crew members can help watch for. The archaeological monitor will not interfere with the activities of Project personnel, except to temporarily stop them in the case of the discovery of possible cultural resources or human remains. Under the 1999 MOA, disposition of any cultural resources requires concurrence by LEKT.
4. Sub-surface sampling will occur with the use of sediment coring; therefore, the monitoring archaeologist will not be able to directly observe the sampling. The professional archaeologist will

work with DOF and the scientist in charge of the sampling process to ensure the monitoring archaeologist will have access to these samples in the lab in a timely manner.

5. Sediment samples will be kept intact until the monitoring archaeologist has reviewed them.
6. At a minimum, the monitoring archaeologist will meet with DOF or the scientist in charge of sampling once a week for the duration of the sampling. They will discuss sampling methods and results of the sediment sampling for that week, review sediment samples, and discuss future sampling and monitoring needs. The professional archaeologist will prepare a bore log (see **Appendix B**) for each sample, as well as a summary of the results and the meeting. The logs and summary will be submitted to DOF, DOE, USACE, the affected Tribes, and other consulting parties.
7. Additional monitoring activities may be implemented at the discretion of the professional archaeologist in consultation with DOF, USACE (in-water), DOE (upland), and the affected Tribes. A list of contacts for the Project is included in **Appendix A**. These activities could include daily review of sediment samples. The decision will be based on the sediments observed in the previous samples or evidence of a buried surface with the potential to contain cultural materials.
8. If the monitoring archaeologist thinks they have encountered human remains, they will immediately contact the DAHP forensic archaeologist for upland samples or the USACE archaeologist for in-water samples and the procedures outlined in Section 7 will be followed.
9. When monitoring work has been completed, WestLand will prepare a report discussing the methods and results of the work. The report will be provided to the DOF for submittal to the DOE and USACE. The DOE and USACE will review the report, consult with LEKT as DOE deems appropriate, and upon determining that it is final, they will submit the report to DAHP, affected Tribes, and any other consulting agency. The DOE and USACE review may take up to 30 days. The reviews conducted by DAHP, the affected Tribes, and other consulting agencies may also take up to 30 days.

6.2 Procedures to Follow When an Archaeological Monitor is Not Present

The following procedures will be followed if cultural materials are identified during ground-disturbing activities when an archaeologist is not present. DOF or its representative will take reasonable steps to protect the discovery site. Work in the immediate area will not resume until treatment of the discovery has been completed or the discovery has been adequately protected. DOF will take appropriate steps including consulting with a professional archaeologist to determine whether the discovery may be an archaeological site. DOF will notify DAHP and the appropriate Tribes (see **Appendix C**) of the discovery within 24 hours.

DOF will determine where it is necessary to continue the ground-disturbing work that led to the discovery. If it is not necessary to continue the ground-disturbing activity that led to the discovery, DOF will consult to stabilize and protect the discovered resource.

7.0 INADVERTENT DISCOVERY OF HUMAN REMAINS

Any human remains that are discovered during project-related activities will be treated with dignity and respect.

In the event that human remains are discovered during ground-disturbing activities the following procedures are to be followed to ensure compliance with RCW 68.60: *Abandoned and Historic Cemeteries and Historic Graves*, and RCW 27.44: *Indian Graves and Records*.

If human skeletal remains are encountered during the course of geotechnical exploration, then all activity will cease to protect the remains from further disturbance. The find will be secured and protected. In addition, the remains will be reported to the Clallam County Medical Examiner and to local law enforcement in the most expeditious manner possible. The remains are not to be touched, moved, or modified in any way.

The Clallam County Medical Examiner will assume jurisdiction over the human skeletal remains. They will make the determination of whether those remains are forensic or non-forensic. If the Clallam County Medical Examiner determines the remains as non-forensic, then they will report the finding to DAHP, who will take jurisdiction and report them to the appropriate affected Tribes. The State Physical Anthropologist will make a determination of whether the remains are Indigenous or historic. They will report their finding to the appropriate affected Tribes or cemeteries. DAHP will then consult with the affected parties as to the future preservation, excavation, and disposition of the remains.

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APPENDIX A

EXAMPLE SUPERVISORY MONITORING PLAN

Supervisory Plan for Archaeological Monitoring

Project: Geotechnical Monitoring for Rayonier Mill Site

Location: Port Angeles, Clallam County, Washington

Monitoring Plan: Attachment A (not included herein)

Name of Archaeological Monitor: Name

Monitor's Resume Attachment B (not included herein)

Summary of Monitor's Qualifications:

- | | | |
|---|-----|----|
| • At least 5 years of archaeological field experience: | Yes | No |
| • Experience in archaeological excavation: | Yes | No |
| • Experience with historical and precontact archaeological artifacts and deposits that could be found at the monitoring location: | Yes | No |
| • Experience in archaeological monitoring: (or an WestLand onsite supervisor will be present during first monitoring project) | Yes | No |

Professional Archaeologist(s) who will serve as Monitoring Supervisor(s): Name, Degree Position

Tara McLaughlin, MA, RPA, Project Manager, Archaeologist

Supervisory Requirements:

- Monitor will have a cell phone and a digital camera.
- Supervisor will visit the project site at the beginning of the work, if the monitor has not worked at the location previously. Supervisor will visit the project site periodically if the monitoring work continues longer than two full-time weeks. Supervisor will visit the project site if a find is made that needs immediate attention.
- Monitor will record daily notes on WestLand's standard monitoring form (Attachment C). Monitor will take at least one photograph daily to record the work progress.
- Monitor will telephone Monitoring Supervisor daily to describe results of observation, monitoring methods, findings, and to discuss any questions.
- Monitor will send electronic photographs of any finds of artifacts or deposits to supervisor for discussion of treatment measures and decisions. The Supervisor will be available to visit site on short notice to view finds that are questionable and/or need immediate attention.
- Monitor will submit written notes weekly for Supervisor's review. Supervisor will review written notes at least weekly and during site visits, and will sign each monitoring record form.

Contact List	
Rayonier A.M. (Property Owner) Rob Webb, Principal Engineer Telephone: 360-908-1386 Email: rwebb@dofnw.com	Port Angeles Police Department Chief Brian Smith 321 E. 5th St. Port Angeles, WA 98362 Telephone: 360-452-4545
Clallam County Medical Examiner, Prosecuting Mark B. Nichols, Attorney/Coroner Clallam County Coroner's Office 223 East 4th St., Suite 11 Port Angeles, WA 98362-3015 Telephone: 360-417-2297 Fax: 360-417-2469 Email: dkelly@co.clallam.wa.us	Washington State Department of Archaeology and Historic Preservation (DAHP) State Archaeologist Dr. Rob Whitlam Telephone: 360-586-3080 (office) Email: Rob.whitlam@dahp.wa.gov
US Army Corps of Engineers Lance Lundquist, Cultural Resources Program Manager Regulatory Branch US Army Corps of Engineers, Seattle District P.O. Box 3755 Seattle WA 98124 Telephone: 206-764-6909 Email: lance.a.lundquist@usace.army.mil	State Physical Anthropologist Dr. Guy Tasa Telephone: 360-586-3534 (office) Email: Guy.tasa@dahp.wa.gov
Archaeological Consultant Tara McLaughlin, Project Manager, Archaeologist Telephone: 509-475-0011 Email: tmclaughlin@westlandresources.com	
Tribes	
Lower Elwha Klallam Tribe Matt Beirne, Natural Resources Director Office: 360-457-4012, ext. 7480 Cell: 369-461-2516; 360-460-9496 Email: matt.beirne@elwha.org	Jamestown S'Klallam Tribe David Brownell, Cultural Resources Specialist 1033 Old Blyn Highway Sequim, WA 98382-9342 Telephone: 360-681-4638 dbrownell@jamestowntribe.org

APPENDIX B

WESTLAND STANDARD MONITORING FORMS

WestLand Monitoring Form			
Project Name and Number			
Name			
Date	Total Hours on Site	Hours Traveled	Site Location
Safety Meeting ☐ Yes ☐ No		Issues	
Weather Conditions			
Site Setting- Ground visibility, materials visible on surface, etc.			
Nature of Construction Activity- Skidding, grubbing, scraping, excavating, demolition, etc.			
Equipment working in vicinity of Site(s) Types and number of machines			
Workers Present Names and Companies			
Visitors/Other Monitors Names and Companies			
Halt? ☐ Temporary ☐ Extended ☐ No Halt	Reason?	Client/Agency Contacted? ☐ Yes ☐ No	Contact Name Time of Call? ☐ am ☐ pm
Instructions- Halt activities, continue to monitor, etc.			
Photo Device		Photo Numbers	
Arch Monitoring Activities Describe in full if equipment was stopped or asked to move Notes on Discussions with others - HRA, other contractors, Tribes			

APPENDIX C

IDP

Inadvertent Discovery Plan for Cultural Resources

Washington state law protects archaeological resources (RCW 27.53, 27.44, and WAC 25–48) and human remains (RCW 68.50) from disturbance or theft. If artifacts or cultural deposits are discovered inadvertently during ground-disturbing activities in the APE, construction should be immediately stopped. Artifacts and cultural deposits might include, but are not limited to, evidence for precontact activities such as chipped stone tools, chipped stone tool debris, ground stone tools, bone, and shell objects, fire-cracked or discolored rocks, concentrations of charcoal and discolored soil, or shell middens. There may also be evidence of Historic period land use or dumping such as structural debris, mechanical items, or concentration of cans, bottles, or other debris (**see Photos C.1–C.6** for examples of artifacts and cultural deposits).

If there is any question as to whether the finds are cultural, a professional archaeologist may be consulted to verify that the finds are archaeological. The construction supervisor will establish a 20 m (65 foot) buffer area around the discovery to protect the find while it is investigated. The project supervisor will notify DOF. Ground-disturbing work may proceed in other parts of the APE, provided it will not affect the cultural discovery. DOF will contact DOE who will carry out any necessary consultation with the affected Tribes, and other interested parties.

If ground-disturbing activities encounter human skeletal remains during the course of construction, then all activity will cease that may cause further disturbance to those remains. The area of the find will be secured and protected from further disturbance until the State provides notice to proceed. The finding of human skeletal remains will be reported to the Clallam County Medical Examiner (360-417-2297) and the Port Angeles Police Department (360-452-4545) in the most expeditious manner possible. The remains will not be touched, moved, or further disturbed. The coroner will assume jurisdiction over the human skeletal remains and make a determination of whether those remains are forensic or non-forensic. If the medical examiner determines the remains are non-forensic, then they will report that finding to the DAHP, who will then take jurisdiction over the remains. The State Physical Anthropologist, Guy Tasa (360-790-1633), will make a determination of whether the remains are Indian or non-Indian and report that finding to any appropriate cemeteries and the affected Tribes. The DAHP will then handle all consultation with the affected parties as to the future preservation, excavation, and disposition of the remains.



Photo C.1. Shell midden and layered stratigraphy of shell and blackened soil



Photo C.2. Examples of stone tools and flaked stone



Photo C.3. Examples of hearth features and unusual accumulations of rocks, possibly with burnt or charcoal-stained soils.



Photo C.4. Examples of historic artifacts



Photo C.5. Examples of historic bottles



Photo C.6. Example of a historic building foundation