CULTURAL RESOURCES REPORT COVER SHEET

DAHP Project Number: 2023-04-02769

Authors: Hulse, Eva, and Michael Lorain

Title of Report: Cultural Resource Survey for the Port of Vancouver's Berth 8/9 Extension and Effficiency Improvements Project, Vancouver, Washington

Date of Report: April 26, 2023

County: Clark Section: 20 Township: 2N Range: 1E

Quad: Vancouver, WA-OR, 7.5-minute, 2017

Acres: 11.5

PDF of report submitted (REQUIRED) ☒ Yes

Historic Property Inventory Forms to be Approved Online? ☐ Yes ☒ No

Archaeological Site(s)/Isolate(s) Found or Amended? ☐ Yes ☒ No

TCP(s) found? ☐ Yes ☒ No

Replace a draft? ☐ Yes ☒ No

Satisfy a DAHP Archaeological Excavation Permit requirement? ☐ Yes # ☒ No

Were Human Remains Found? ☐ Yes DAHP Case # ☒ No

DAHP Archaeological Site #: None

CULTURAL RESOURCE SURVEY

FOR THE PORT OF VANCOUVER'S

BERTH 8/9 EXTENSION AND EFFICIENCY IMPROVEMENTS

PROJECT,

VANCOUVER, WASHINGTON

Prepared For
Port of Vancouver
Vancouver, Washington

April 26, 2023

REPORT NO. 5003

Archaeological Investigations Northwest, Inc.

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CULTURAL RESOURCE SURVEY FOR THE PORT OF VANCOUVER'S BERTH 8/9 EXTENSION AND EFFICIENCY IMPROVEMENTS PROJECT, VANCOUVER, WSHINGTON

PROJECT:	Improvements to existing berths at the Port of Vancouver
DESCRIPTION:	Cultural resource survey
LOCATION:	Section 20, Township 2 North, Range 1 East, Willamette Meridian
USGS QUAD:	*Vancouver, WA-OR,* 7.5-minute, 2017
CITY:	Vancouver
COUNTY:	Clark County
PROJECT APE:	11.5 acres
AREA SURVEYED:	11.5 acres
FINDINGS:	• The project is within the Vancouver Lakes Archaeological District (45DT101). • No archaeological resources or historic buildings were present within the project area.
RECOMMENDATIONS	AINW recommends a finding of "**No Effect on Historic Properties.**" The project is within an archaeological district but will not impact any contributing historic properties. No additional cultural resources work is recommended.
PREPARERED BY:	Eva Hulse, Ph.D., R.P.A., and Michael S. Lorain, M.A., R.P.A.

INTRODUCTION

The Port of Vancouver (Port) proposes to extend Berth 9 downriver and fill in two existing cutouts on the existing dock at Berths 8 and 9 (Figures 1 and 2; Photo 1). Deep soil mixing, in which cement grout is injected subsurface and mixed with existing sediments, will be used to stabilize the shoreline against lateral movement during seismic events. Deep soil mixing will reach a maximum depth of 16.75 meters (m) (55 feet [ft]) below the surface. A mooring dolphin and a breasting dolphin will be relocated to accommodate ship mooring at the expanded Berth 9, which is on the western side of the project's 11.4-acre Area of Potential Effects (APE). The project may be conducted in two phases with the berth 9 extension and cutout conducted in one phase and the berth 8 cutout in a separate phase. The berths were constructed in stages between 1979 and 1987 and the two dolphins were constructed circa 1982.

The Port is applying for funding from the U.S. Maritime Administration's Port Infrastructure Development Program. The work will also need a permit from the U.S. Army Corps of Engineers (USACE). Federal agencies will review the project under Section 106 of the National Historic Preservation Act, and the Port will also need to comply with the City of Vancouver's archaeological ordinance (VMC 20.710). An Archaeological Investigations Northwest, Inc. (AINW), archaeologist meeting the Secretary of the Interior's Qualifications in Archaeology has conducted a cultural resource survey of the project's APE.

The project is within the Vancouver Lakes Archaeological District (45DT101), which is eligible for listing in the National Register of Historic Places (NRHP). No archaeological or historic resources are present within the APE, and since this area is newly created land from filling, there is low risk of encountering a resource during construction. No additional cultural resource work is recommended. AINW recommends a finding of **No Effect on Historic Properties**, as the project is within the archaeological district but will not impact any contributing historic properties.

Photo 1. Overview of Berths 8 and 9, with a moored ship on the Columbia River. The view is looking downstream (southwesterly) towards Berth 9. Photo courtesy of the Port of Vancouver.

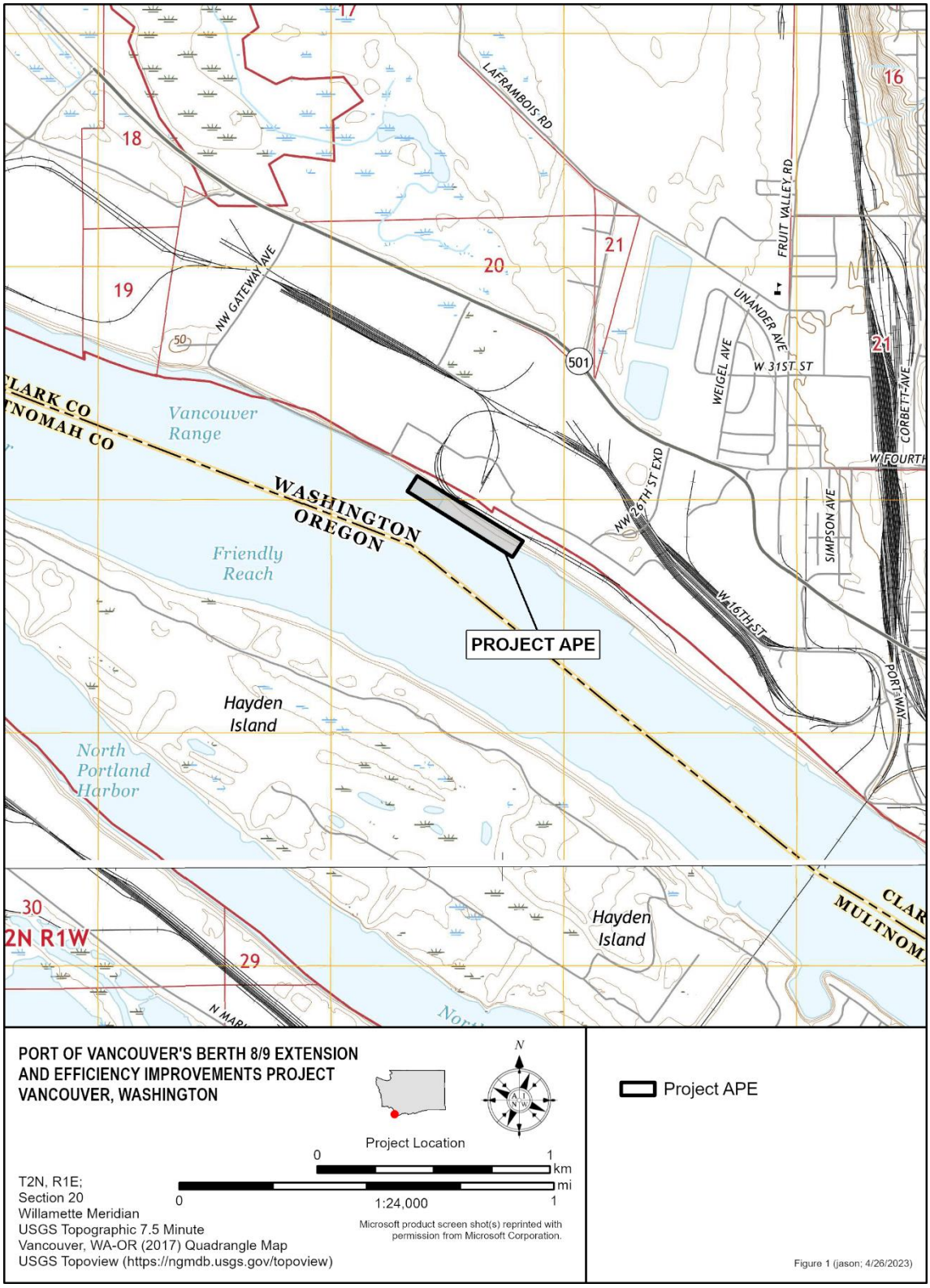

Figure 1. The Port of Vancouver Berth 8/9 Extension and Efficiency Improvements project's APE is in Vancouver, Washington.

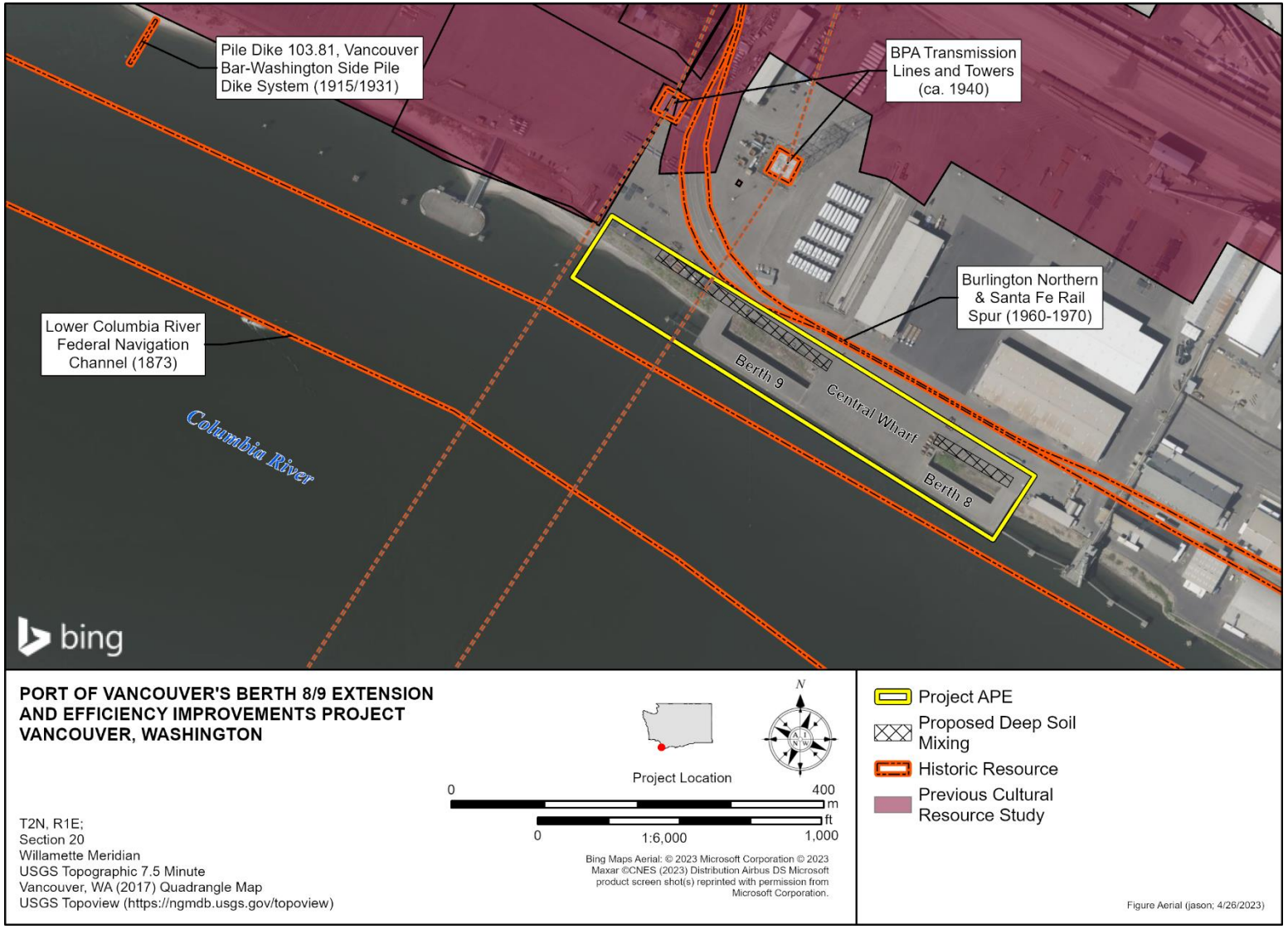

Figure 2. The project APE encompasses a new extension to Berth 9, filling in the aprons at Berths 8 and 9, and areas where deep soil mixing will stabilize the sediment. The area has not been previously surveyed for cultural resources. The proposed work will not overlap nearby historic resources.

PROJECT LOCATION AND SETTING

The Port of Vancouver is on the north bank of the Columbia River, in an area currently dominated by industrial development but surrounded by scattered marshes and agricultural parcels. Vancouver Lake is approximately 1 kilometer (km) (0.6 mile [mi]) to the northwest. Material dredged from the Columbia River blankets Port property (O'Connor et al. 2016). The project APE, which measures 533 meters (m) (1749 feet [ft]) from east to west and 87 m (286 ft) from north to south, lies partly on a flat, paved cap of fill with an elevation of approximately 10 m (33 ft) above mean sea level (amsl). The fill cap is armored with riprap where it slopes steeply down to the river, and the southern half of the APE is set on piles over the river (Photo 2). A Burlington Northern & Santa Fe Rail spur lies just north of the upland portion of the APE (Photo 3). The project will not impact the rail spur.

Historically, the area of the project APE was within the river channel. An 1890 U.S. Coast and Geodetic Survey map of the area shows open water at the project location (Figure 3). By 1951, the shoreline was partially filled with dredged materials and the new riverbank was just at the northern edge of the current APE (Figure 4; USGS 1951). The central wharf between Berths 8 and 9 was constructed on the fill cap at the water's edge in 1979 (Figure 2). In 1982, the Port constructed the Berth 9 apron and downstream extension, and the Berth 8 upstream extension and apron were constructed in 1987 (Brian Carrico, personal communication 2023).

Vancouver Lake and the bottomlands around the Port lie in a channel which was scoured by Missoula floodwaters during the Pleistocene (Peterson et al. 2011:285). The final stages of the Missoula floods passed through the area just prior to 14,271 to 13,739 calendar years (cal yrs) before present (B.P.) (Minor and Peterson 2013; O'Connor et al. 2020). The deepest parts of Vancouver Lake were isolated from the main channel between 4,810 and 4,420 cal yrs B.P. after a bend in the river channel was cut off by a sandbar, which created a slackwater pool that allowed fine-grained silts and clays to settle onto sandier overbank deposits. The river channel slowly migrated westward, and the scroll bar marking the western edge of Vancouver Lake dates to between 2,860 and 2,740 cal yrs B.P. (Peterson et al. 2014).

Although the APE is presently capped by fill, adjacent parcels to the north of Lower River Road remain undeveloped, and these provide a view of the landscape as it existed before filling. Parcels north of Lower River Road consisted of ridge-and-swale bottomlands scattered with permanent and seasonal wetlands and a few larger ponds (Buchanan and Reese 2008; Davis and Ozbun 2011; Jenkins and Davis 2012). The ridges and swales were vegetated with grasses, sedges, cottonwood, willow, thistle, and blackberry. The terrain ranged in elevation from 3 to 8 m (10 to 26 ft) amsl. General Land Office (GLO) surveyors in the late nineteenth and early twentieth centuries recorded riparian deciduous forest along the riverbank and dry grassy prairie away from the river (Christy 2015).

Photo 2. The gaps between the upland and overwater portions of Berths 8 and 9 will be filled as part of the project. The view is towards the west. Photo courtesy of the Port of Vancouver.

Photo 3. The upland portion of the project APE lies just to the south of a Burlington Northern & Santa Fe rail spur, to the left. Berth 9 is to the right. The view is towards the east.

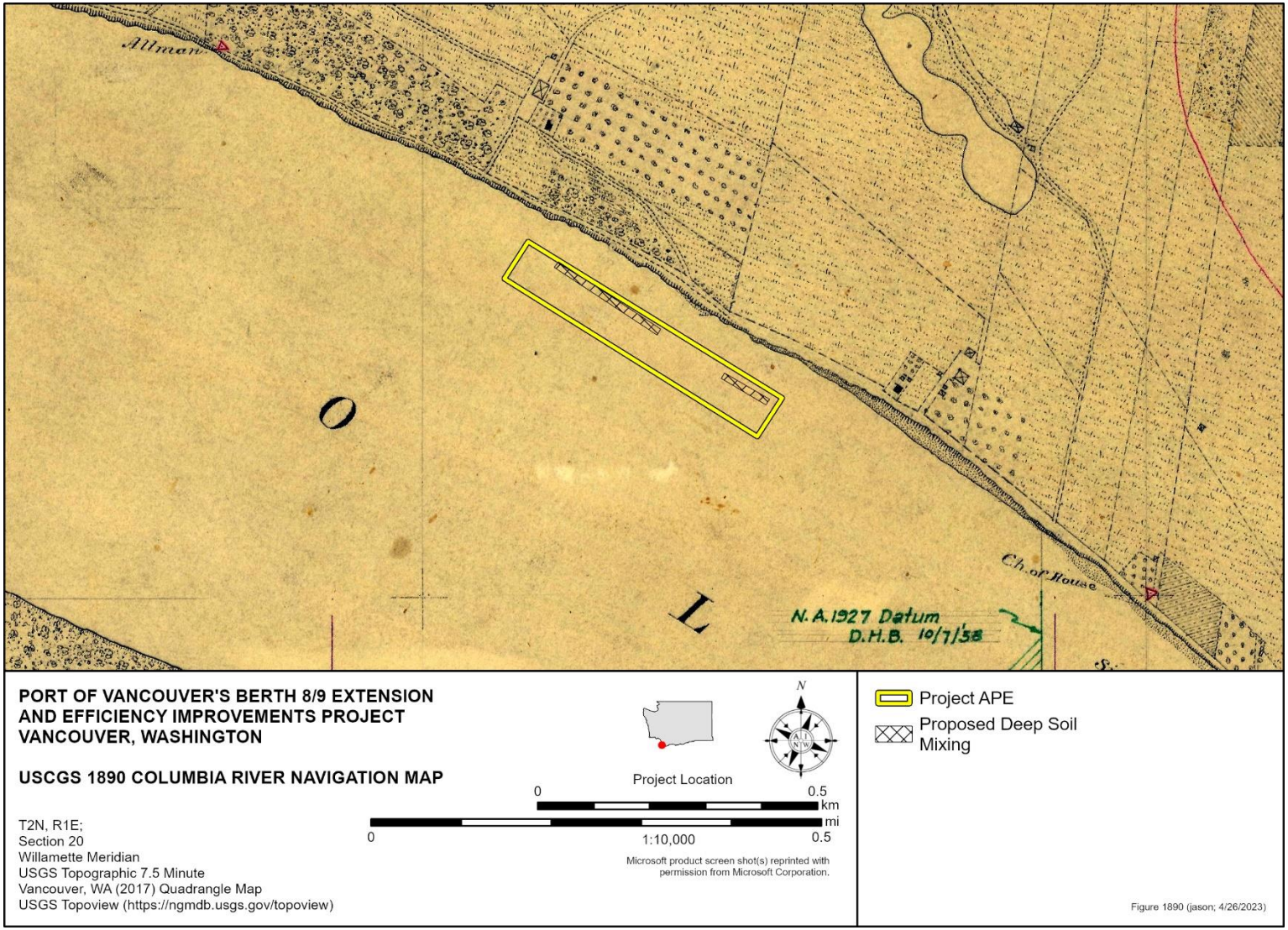

Figure 3. The project APE lies within the former channel of the Columbia River, as mapped by the USCGS in 1890. Compare the relative position of the APE and the pond shown in the upper right of the map with the figure on the following page.

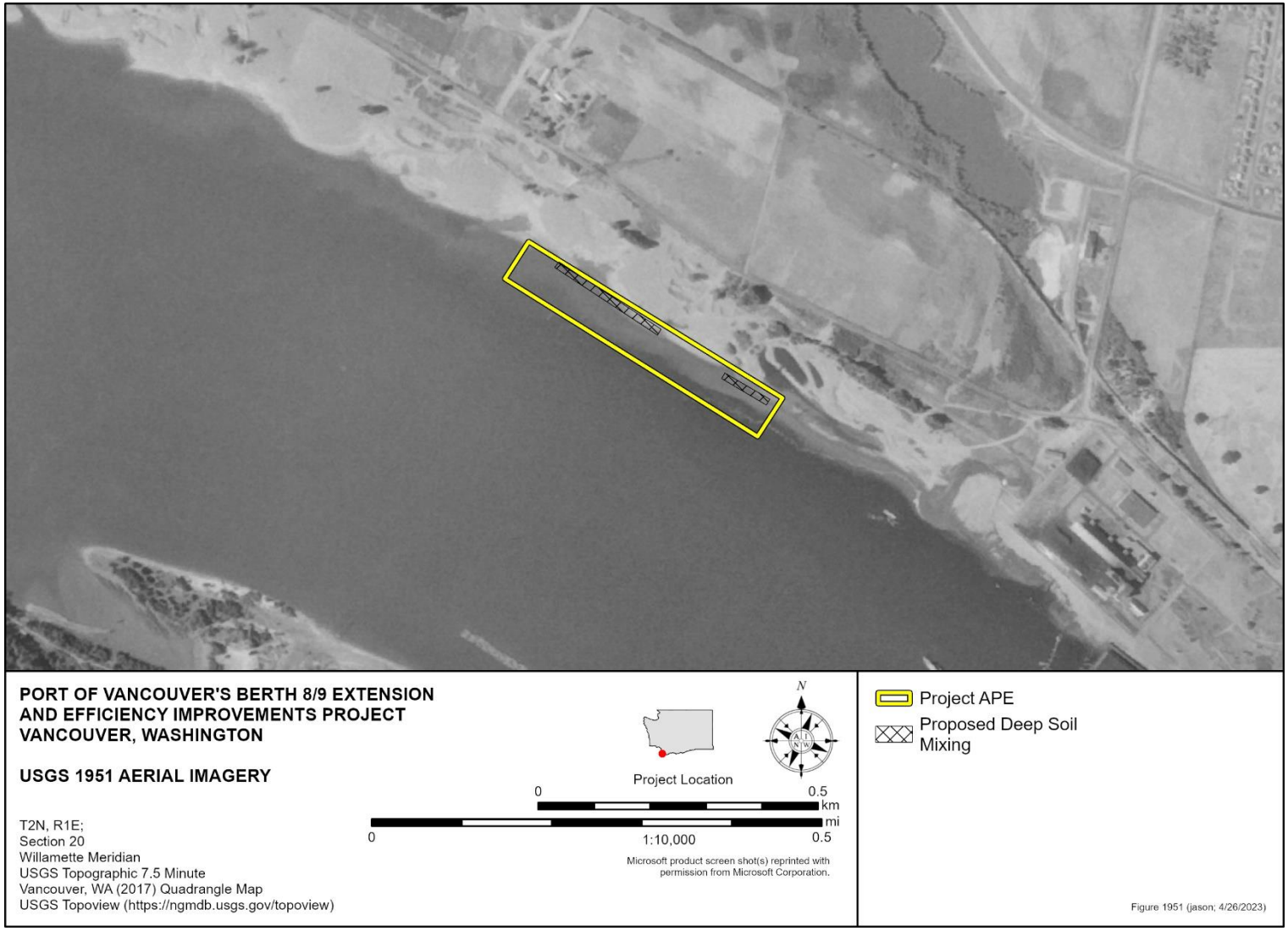

Figure 4. Dredged materials were used to fill the shoreline in the twentieth century. Compare the relative position of the APE and the pond shown in the upper right of the map with the figure on the previous page.

CULTURAL SETTING

The archaeological record for the Columbia River bottomlands is typically limited to sites dating to the last 3,000 years, as land subsidence coupled with rising sea levels have altered the river channels such that thick layers of sediment lie on top of some sites, while others have been lost to erosion (Ames 1994; Pettigrew 1990). Sites are typically located along major waterways, including the Columbia and Willamette Rivers, and Vancouver Lake. Several large village sites have been well studied; these include the Cathlapotle site (45CL1) near Ridgefield, the Meier site (35CO5) near Scappoose, Oregon, and the Sunken Village site (35MU4), which is located on Sauvie Island (Ames et al. 1992, 1996; Croes et al. 2007). Sites predating 3,000 to 3,500 years ago tend to be found on terraces well above the floodplain. Excavations at Sunset Ridge (45CL488) and Morasch Terrace (45CL428) in Camas and Gee Creek (45CL631, 45CL632, and 45CL810) southwest of Ridgefield have been dated to older than 5,500 years ago and some as early as the Late Pleistocene (Ozbun and Reese 2003; Punke et al. 2009; Woodward and Associates 1996). These sites demonstrate that older, datable archaeological deposits are located within Clark County; however, such sites are less common in the bottomlands.

Late Prehistoric indigenous people of the lower Columbia region and the greater Northwest Coast area are considered to be complex hunter-gatherers (Ames and Maschner 1999). This socioeconomic structure is based on a hunter-fisher-gatherer mode of subsistence, and it had sophisticated social structures and cultural traditions. Lower Columbia River groups were residentially sedentary and lived in large plankhouses. They were socially stratified by wealth and ascribed status, and they maintained some of the highest population densities in native North America (Ames and Maschner 1999).

The Columbia River bottomlands region is within the traditional territory of Chinookan-speaking people, specifically those who spoke the Multnomah dialect (Silverstein 1990:534). Chinookan-speaking groups possessed cultural traditions bearing similarities to groups on the Pacific Northwest Coast as well as the Columbia Plateau (Silverstein 1990). Chinookan-speaking peoples were ethnohistorically documented as living in large villages comprised of one or more plankhouses along major waterways (Moulton 1990). The village of *wák'anasisi* (bufflehead ducks) sat on the north bank of the Columbia River opposite the mouth of Willamette River, approximately 3.2 km (2 mi) downriver, northwest of the current project area (Ellis et al. 2016:19; Zenk et al. 2016:8-9).

The Cowlitz, an inland group, regularly traveled to the Columbia River bottomlands. The Lower Cowlitz spoke a Salish dialect and occupied the lower reaches of the Cowlitz River and its tributaries (Hajda 1990).

People maintained permanent winter villages along the major waterways and temporarily moved to hunting, fishing, and gathering locations for parts of the year (Silverstein 1990). Subsistence was based on seasonal availability and included seasonal fish runs of salmon, sturgeon, eulachon, and freshwater fishes; birds; aquatic mammals; and land mammals, primarily deer and elk. Plant foods were seasonal as well and included berries, nuts, and roots, as well as bulbs and tubers. Camas bulbs and wapato tubers were especially important resources that were harvested in excess for trade (Hajda 1990). Wapato was abundant in the marshes at the confluence of the Willamette and Columbia Rivers (Deur 2012:12). The terraces north of the Columbia River supported prairies and meadows with abundant edible plants, particularly camas, and indigenous people maintained these important resource-gathering areas using controlled burning (Deur 2012:10; Norton et al. 1999). *Sketcu'txat* was a

large prairie 4 km (2.5 mi) southeast of the current Port of Vancouver, where non-indigenous settlers established the early outpost of Fort Vancouver (Deur 2012:10).

The earliest European Americans to travel through southwest Washington included William Broughton in 1792 and the Lewis and Clark Expedition in 1805. Fur traders working for the North West Company and the Hudson's Bay Company followed these initial explorers, and Fort Vancouver was built during the winter of 1824-1825 in present-day Vancouver. As the fort grew to become the headquarters of the Hudson's Bay Company Columbia District, farms, roads, and bridges were established throughout the area to support the enterprise. By the 1840s, most of Clark County, including the vicinity of the project APE, was claimed by the Hudson's Bay Company. The Hudson's Bay Company used the north shore of the Columbia River for farming, pastureland, and dairying (GLO 1854; Moore et al. 1997).

The project APE is approximately 100 m (328 ft) to the southwest of a road that followed the north bank of the Columbia River in the mid-1800s (GLO 1860). A building was located approximately 0.36 km (0.22 mi) to the east of the project area (GLO 1860). The GLO map from 1863 shows the project APE in the vicinity of the former Donation Land Claim (DLC) of H. Van Allman (DLC No. 57) (GLO 1863). Henry Van Allman was born in Switzerland and immigrated to the Oregon Territory in 1847. In that same year, Van Allman settled his DLC of 311.37 acres (Clark County Genealogical Society 1989). In 1859, Joseph Petrain purchased the Van Allman DLC and used the land for grazing livestock and agriculture (Downing 1883 as cited in Moore et. al 1997).

The original alignment of Lower River Road (now NW Old Lower River Road) is shown on the early GLO maps and the 1897 U.S. Geological Survey (USGS) 15-minute quadrangle map for Portland, Oregon (USGS 1897). The road originally paralleled the Columbia River along the natural terrace above the shoreline, which passed north of the project APE. By 1905, the road was shifted north in the current alignment of NW Old Lower River Road (USGS 1905, 1954). The 1929 Metsker map for Township 2 North, Range 1 East, Willamette Meridian, depicts the project area as part of a larger property owned by the Grays Harbor Lumber Company (Metsker Maps 1929).

The Port was established in 1912 and entered into a contract with G. M. Standifer Construction Corporation to build a shipyard to the east of the current project area to aid the World War I effort (Port of Vancouver 2023). Terminal 1 at the Vancouver Landing was acquired in 1925, and a grain export facility was constructed in 1934 at Terminal 2. Harbor cranes were acquired at Terminal 2 for unloading large shipments in 1959. Terminals 3 and 4 were developed by 1963. The central wharf between Berths 8 and 9 was constructed in 1979. Berth 9 was expanded in 1982, and the existing dolphins were constructed around this time. Berth 8 was expanded in 1987 (Brian Carrico, personal communication 2023). In 2009, the Port acquired acreage formerly owned by the Evergreen and Alcoa aluminum industries to develop the Port's marine Terminal 5. The rail loop at Terminal 5 was completed in 2010.

PREVIOUS CULTURAL RESOURCE STUDIES

AINW reviewed records using the Washington Information System for Architectural and Archaeological Records Data (WISAARD) online database to determine if previously recorded archaeological resources were present in or near the project APE. These records were also reviewed to determine whether portions of the project APE were previously surveyed. AINW also reviewed reports, maps, and other documents online and in its library. The WISAARD predictive model indicates that the project area has a very high probability for archaeological resources, and the Clark County predictive model shows this area as "Higher Probability."

Twenty-one cultural resource studies are documented for the project vicinity in WISAARD or in AINW's library. Those that involved subsurface inspection found fill composed of dredged materials, and where native soil was present, there were no archaeological discoveries (Becker and Roulette 2003; Chapman and Blaser 2010; Cox and Tisdale 2014; Davis and Ozbun 2011; Ellis and Mills 1998; Fagan and Zehendner 2009; Forgeng and Reese 1993; Fuld and Reese 2012; Fuld and Tisdale 2015; Hambelton et al.2014; Hetzel et al. 2009; Hulse and Reese 2015; Jenkins and Davis 2012; McClintock 2006; Moore et al. 1997; Oliver and Schmidt 2012; Reese 2009a, 2009b; Thomas 1995; Thomas and Welch 1982; Zehendner and Fagan 2008).

The closest archaeological study with subsurface inspection consisted of monitored mechanical excavation for a check valve 90 m (295 ft) northeast of the current APE (Cox and Tisdale 2014). The monitored excavation, which overlaps the historic location of the former riverbank, encountered 4.3 m (14 ft) of fill over dark brown silty native soil. No evidence of archaeological materials was observed in the native soil.

Geoarchaeological borings were conducted along the shoreline within the fill cap approximately 0.7 km (0.4 mi) downriver at Berth 13 (Hulse and Reese 2015). The borings were placed at the very margin of the circa 1890 riverbank and within the area that was filled during the mid-twentieth century for Port development. The sediments consisted of between 4.4 and 7.5 m (14.6 and 24.5 ft) of fill over sediments reflecting a highly unstable channel margin environment, over alluvial sands to a depth of 16.8 m (55 ft) below the surface. The study recommended that construction monitoring would not be needed due to the low archaeological sensitivity of that location.

Previously Recorded Archaeological Resources

The project APE is within the boundary of the Vancouver Lakes Archaeological District (45DT101). The district encompasses 3,706 acres of Columbia River floodplain, as well as Vancouver Lake, Lake River, Lewis River, Bachelor Island, and several other lakes, streams, and marshlands. The south bank of the Lewis River forms the northern boundary of the district. The Columbia River forms the western and southern boundaries of the District. The Burlington Northern and Santa Fe Railroad forms the eastern boundary from the Columbia River to the Lewis River.

The Vancouver Lakes Archaeological District included 125 sites in 1982 when it was determined eligible for listing in the NRHP (Burd 1982). Sites identified within the District boundary subsequent to the determination of eligibility in 1982 are not officially part of the District, although many may be considered significant sites. The district includes a variety of micro-environments, such as seasonally wet

prairies, marshes, tidal beaches, and wooded areas along terraces that supported a diverse array of resources and archaeological sites. The seasonally flooded, shallow wetlands south of Vancouver Lake once supported extensive fields of wapato. Wapato was an important staple tuber for the local people, and harvest required navigating the shallow marshes around Vancouver Lake using boats (Blukis Onat 1997). Wapato camps would have been placed near the flooded marshes.

The bottomlands south of Vancouver Lake are dotted with dozens of pre-contact sites, primarily scatters of fire-cracked rock, lithic debitage, and stone tools from ephemeral campsites on elevated ridges and along the rim of Vancouver Lake. The closest archaeological resource is 45CL1348, an inadvertent find of a pecked stone net weight that was found 230 m (755 ft) north of the current APE within a stormwater pond near a beaver burrow (Smits 2018). The closest in situ archaeological site is 45CL143, which is located approximately (0.68 mi) to the northeast of the project area. The site consists of a small lithic scatter observed on the surface and plowzone (Duncan 1979). Artifacts identified include cobble choppers, debitage, and a pestle along with a scatter of fire-cracked rock.

A possible village site, 45CL126, is 2.9 km (1.8 mi) downstream from the APE and is described in Fuld et al. (2013:7-8). In situ artifacts have not been noted on the surface at elevations below 3.6 m (12 ft) asl (Spencer and Williams 2004). Residential sites, in particular, are located above the annual high water mark of 4.8 m (16 ft) asl (Ames 1994). The proximity of the project APE to both a major river channel and a productive wetland/lake complex makes the vicinity a possible location for seasonal human activity. The natural shoreline is to the northeast of and outside the project APE.

Previously Recorded Historic Resources

The project APE is adjacent to elements of the NRHP-eligible USACE Lower Columbia River Federal Navigation Channel. Pile dike 103.81 of the Vancouver Bar-Washington pile dike system is mis-plotted in WISAARD and is not within the project APE. The pile dike, constructed in 1915 and extended in 1931, is 0.7 km (0.4 mi) downstream and northwest of the APE (Provost 2020a). The 1873 Navigation Channel itself is approximately 30 m (98 ft) southwest of the project APE according to a current navigation map (National Oceanic and Atmospheric Administration 2020; Provost 2020b). The western end of the APE will pass beneath and entirely avoid the circa 1940 Ross-Rivergate No. 1 and Ross-St. Johns No. 1 transmission lines belonging to the Bonneville Power Administration (BPA) (BPA 2023; Hetzel 2009). The northeastern edge of the APE approaches but does not intersect a spur of the Burlington Northern & Santa Fe Railroad (Keeney 2007). The spur was constructed between 1960 and 1970 (USGS 1960, 1970).

Summary

In summary, the project area is within the NRHP-eligible Vancouver Lakes Archaeological District (45DT101) in an area with numerous pre-contact archaeological resources due to the close proximity to the Columbia River. The Port of Vancouver has relatively few recorded resources as a result of thick fill deposits and disturbances associated with the development of the Port. The project area is located where the Columbia River previously ran and the likelihood of encountering pre-contact or historic-period archaeological resources is low.

ARCHAEOLOGICAL SURVEY METHODS AND FINDINGS

The archaeological study was conducted as a desktop review by AINW Senior Project Manager/Senior Geoarchaeologist, Eva Hulse, Ph.D., R.P.A. AINW conducted a visual inspection of the project APE using photographs provided by the Port and publicly accessible aerial photographs. To document the location of the shoreline prior to filling and Port construction, AINW consulted historic maps and aerial photographs available in AINW's library and through public databases.

The overwater portion of the project APE consists of the central wharf, with Berth 9 on the western/downstream side and Berth 8 on the eastern/upstream side (Photos 1, 2, and 4). The berths are supported by pilings (Photo 2) and the surface of the overwater platform is paved (Photo 4). The Port proposes a downstream extension to Berth 9 which will extend the overwater platform to the west. The extended platform will be constructed where the fill cap meets the river west of the existing berths (Photo 5).

The sediments along the shoreline will be stabilized using deep soil mixing, and the area proposed for deep soil mixing extends the full length of the upland portion of the APE on either side of the central wharf (Figure 2). The portion of the APE where there will be deep soil mixing is entirely paved and level. The western edge of Berth 9 will be extended downstream along the rip-rap reinforced face of the fill cap where the project will run beneath BPA's Ross-Rivergate No. 1 and Ross-St. Johns No. 1 transmission lines (Photo 5). The pavement to the northeast of Berths 8 and 9 is currently used for storage (Photo 6).

Due to the lack of potential for buried riverbank within the project APE, no subsurface investigation is recommended. The sediments that will be impacted by deep soil mixing were emplaced as fill within the former river channel in the mid-twentieth century. The native sediment below the fill consists of alluvial channel-bottom deposits, and there are no buried landforms where an archaeological resource may be present. In-water impacts, which include new piles and dolphins and the emplacement of additional fill, will likewise not impact an archaeologically sensitive landform.

HISTORIC RESOURCES

There are no historic built resources within the project APE. The APE will not intersect the Lower Columbia River Federal Navigation Channel or its associated pile dike, the BPA transmission lines, or the Burlington Northern & Santa Fe rail spur.

RECOMMENDATIONS

AINW has conducted a cultural resource study for the Port of Vancouver's Berth 8/9 Extension and Efficiency Improvements project. The project will not impact landforms with potential to retain archaeological resources, and there are no historic resources within the project APE. The project is within the Vancouver Lakes Archaeological District (45DT101) but will not impact archaeological or historic resources that contribute to the NRHP-eligibility of the district. AINW recommends a finding of **No Effect on Historic Properties** for the project. No additional cultural resource work is recommended.

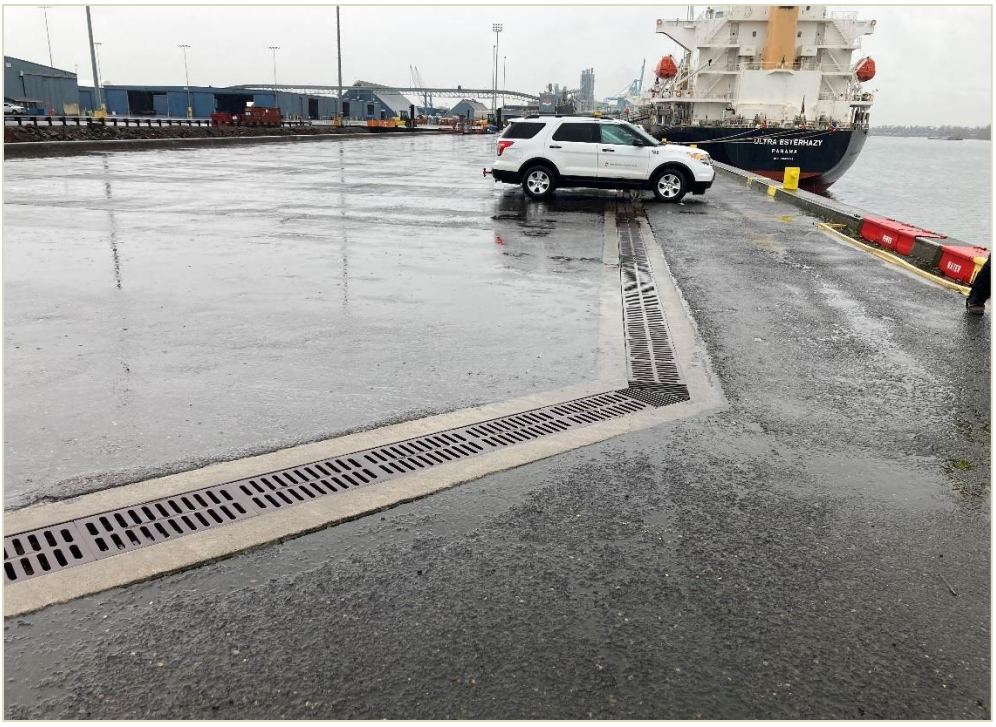

Photo 4. The overwater portion of the project APE as viewed from Berth 9. The view is towards the southeast.

Photo 5. Rip-rap armors the portion of filled shoreline where the Port will construct the downstream extension to Berth 9. The footings of the Ross-Rivergate No. 1 and Ross-St. Johns No. 1 transmission line towers are visible in the background. The view is towards the northwest from the current western edge of Berth 9.

Photo 6. At the time of inspection, aluminum ingots were being stored where there will be deep soil mixing north of Berth 8, which is on the left. The gap between the upland and overwater portions of Berth 8 will be filled. The view is towards the northwest.

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