

**Please note, the following Cultural Resource Literature Review was prepared based on the draft mitigation approach. The proposed mitigation scope has been reduced.**

# CULTURAL RESOURCES REPORT COVER SHEET

Author: Smith, Michael and Alexander Gall

Title of Report: Cultural Resource Literature Review of the Port of Kalama T-Barge Facility Project Area, Port Of Kalama, Cowlitz County, Washington

Date of Report: 11/29/17

County: Cowlitz Section: 18 Township: 6N Range: 1W

Quad: Kalama, WA Acres: <1 acre

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 #:

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- Please be sure that any PDF submitted to DAHP has its cover sheet, figures, graphics, appendices, attachments, correspondence, etc., compiled into one single PDF file.
- Please check that the PDF displays correctly when opened.

# **CULTURAL RESOURCE LITERATURE REVIEW OF THE PORT OF KALAMA T-BARGE FACILITY PROJECT AREA, PORT OF KALAMA, COWLITZ COUNTY, WASHINGTON**

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County: Cowlitz  
Township: 6 North  
Range: 1 West  
Section: NE ¼ of Section 18  
USGS Quad.: Kalama, WA  
Project Acreage: Less than 1 acre

November 29, 2017

**Archaeological Services Report No. 17589**



**ARCHAEOLOGICAL**  
SERVICES

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## Introduction and Project Background

Archaeological Services LLC (ASCC) has carried out a cultural resource literature review of the Port of Kalama T-Barge Facility project area, located on the Columbia River shoreline within the city of Kalama, Cowlitz County, Washington. The project concerns the placement of a floating T-barge along with access and utility infrastructure in NE ¼ of Section 18, Township 6 North, Range 1 West, Willamette Meridian (Figure 1). As ASCC understands current plans, proposed ground disturbance will be confined to the following:

1. An approach pier, accessed via N Hendrickson drive. Measuring 55 feet by 12 feet, the approach pier will lead southwest from a concrete backwall, extending over the Columbia River shoreline on steel piles. A gangway will connect the end of the pier to the T-barge. The approach pier and gangway together comprise the access ramp, as shown in Figures 2 and 3.
2. Associated utilities, including lighting fixtures and an electrical service pedestal, installed adjacent to the approach pier.
3. A linear utility trench running less than 200 feet (61 meters) south-southeast from the approach pier along the south side of N Hendrickson Drive to tie into existing utilities. Utility work will reportedly stay within 3 feet (91 cm) of ground surface.
4. Within the river, an estimated 80 derelict, creosote-treated timber piles, all over 50 years of age, will be removed. An exact count of the piles would require an extreme low water event.

As of this writing, the project has no federal nexus. As part of due diligence efforts, ASCC was contracted by PND Engineers, Inc. to research the project's cultural context and assess its potential to affect any cultural resources. This research has indicated no known archaeological sites within a mile of the project area. Four historic properties in the city of Kalama have been recommended as eligible for listing on the National Register of Historic Places (NRHP), but no indirect effects on these properties are foreseen. The project setting as a whole has been heavily modified by twentieth-century industry, dredge filling, and bank armor, and prior to those impacts was subject to erosion and sedimentation from Columbia River flood events. As discussed below, it appears that the probability for encountering intact, potentially artifact-bearing soils in the project area is low.

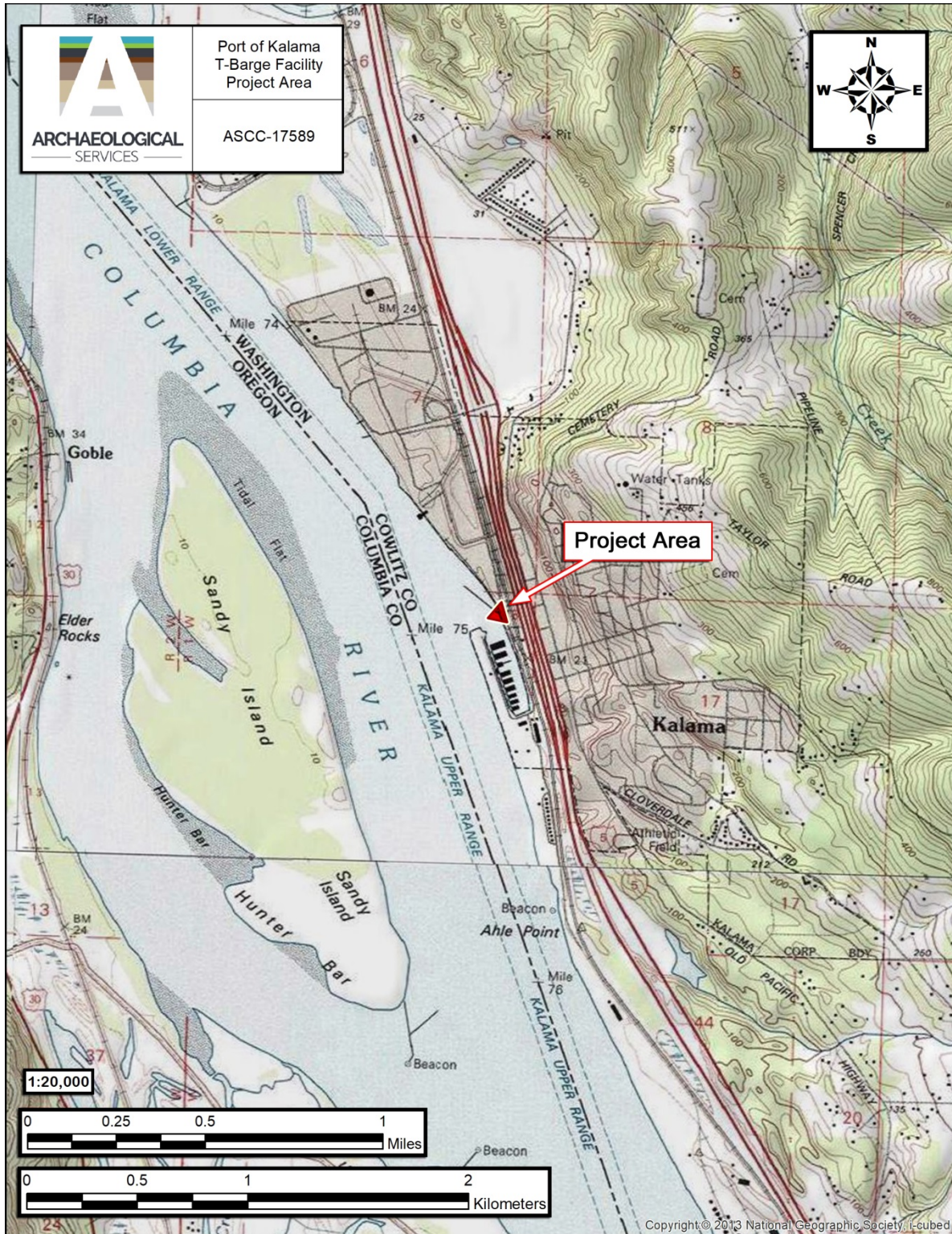
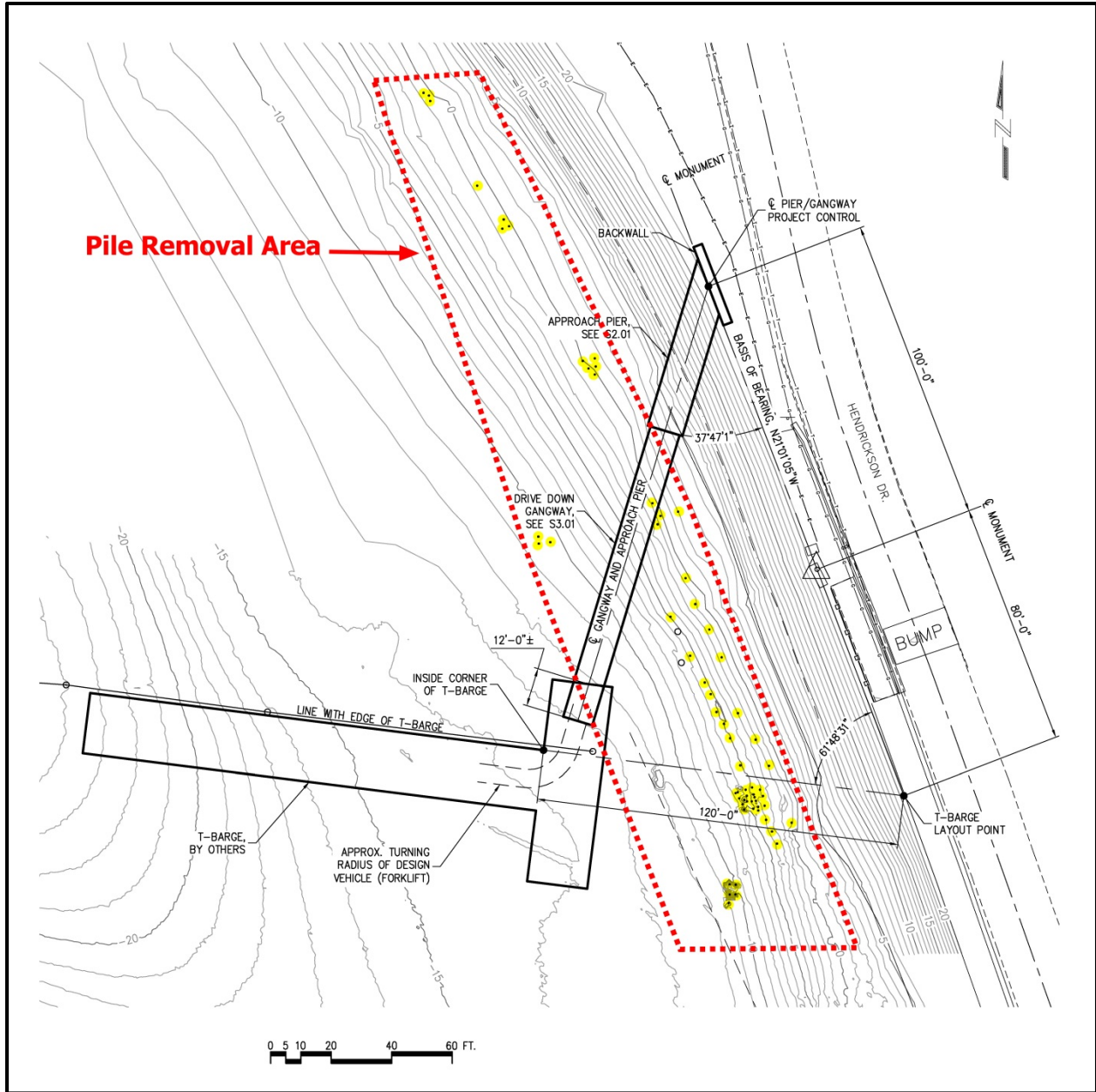
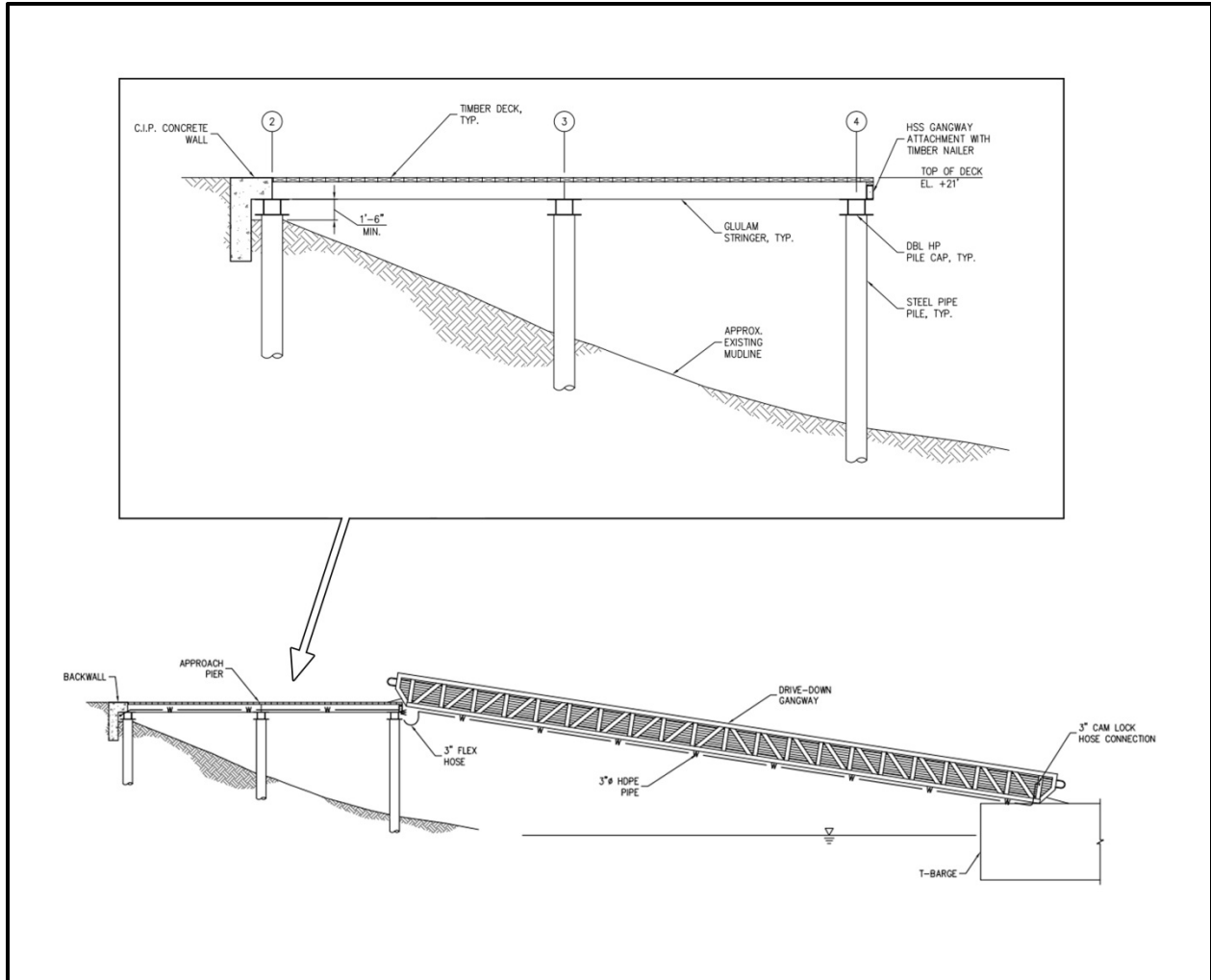


Figure 1. 1990 USGS Kalama, WA quadrangle, 7.5-minute series, showing the location of the project area in Sections 7 and 18, Township 6 North, Range 1 West, W.M.



**Figure 2.** Currently available plans showing approach pier, gangway, and T-barge design. The area slated for timber pile removal is outlined in red, and known pile locations are highlighted in yellow. Additional piles are understood to be present below the water line.



**Figure 3.** Currently available project plans showing approach pier and gangway design.



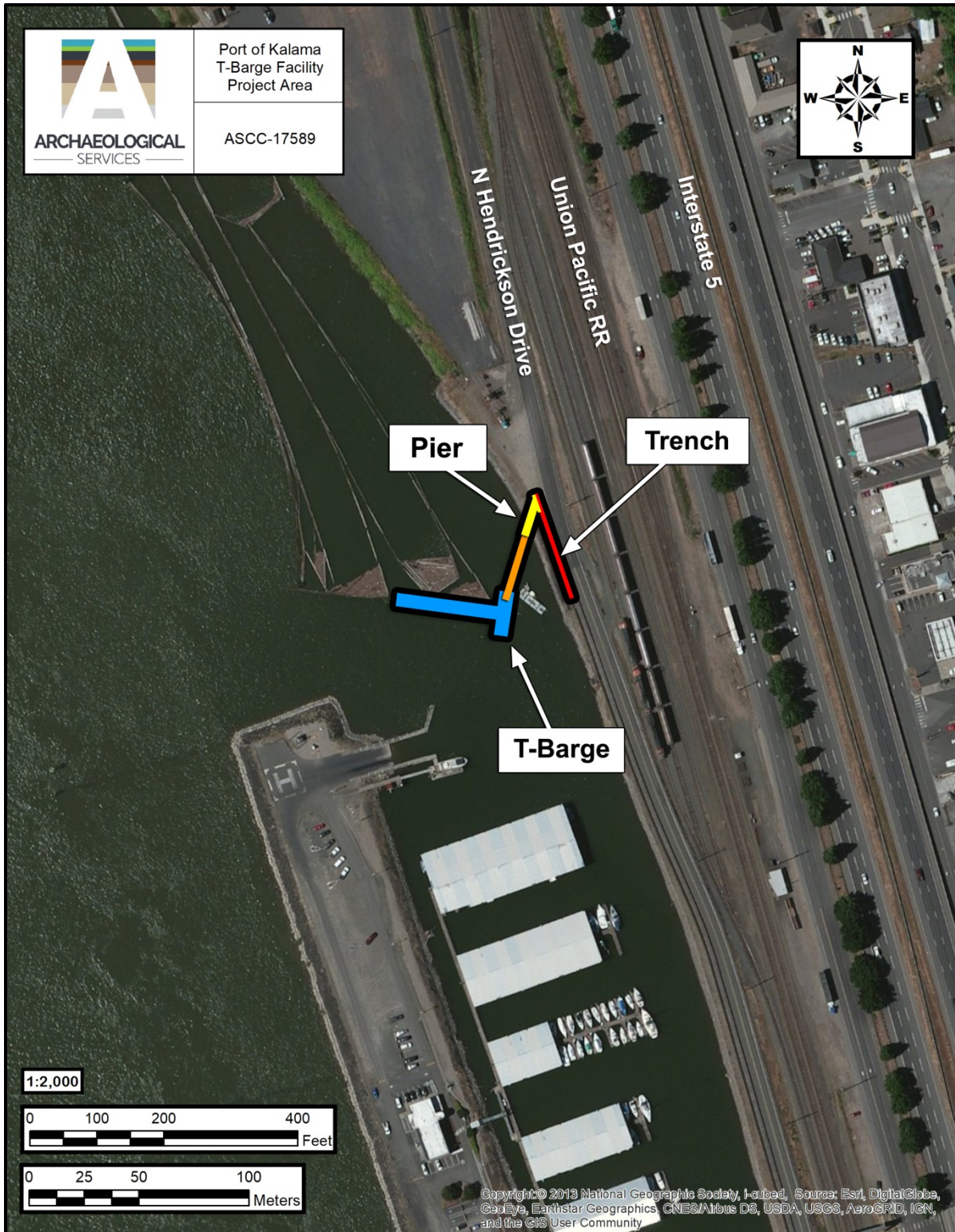


Figure 4. Aerial photomap of the project area showing current conditions and project elements.

## Project Area Description

The project area is located in southwestern Cowlitz County, Washington on the Columbia River at approximately River Mile 75. It is at the western edge of the city of Kalama, lying about 600 feet (183 meters) west of Kalama's central business strip. Terrain in the project area is low-lying and fairly flat—around 23 feet above mean sea level, except at the riverbank below the approach pier, where elevation drops to about 5 feet above mean sea level.

The project area is irregular in shape, encompassing the straight linear utility trench (shown in red in Figure 4), the approach pier and gangway (in blue), and the floating T-barge (in yellow). Altogether, these elements total less than an acre of project impacts.

The project setting can be characterized as a light industrial waterfront, flanked on its eastern side by transportation routes: N Hendrickson Drive, the Union Pacific Railroad, Interstate 5, and NE Frontage Road, all side-by-side and running northwest-southeast. The proposed utility trench is routed along a roadside strip between N Hendrickson Drive and the bank of the Columbia River. The shoreline where the ramp is proposed has been reinforced with dredge deposits and apparent riprap, part of flood control measures enacted by the U.S. Army Corps of Engineers (USACE) as recently as 1969 (Urrutia 1998).

## Environmental Context

The project's environment is dominated by the Columbia River, here flowing northward through part of the Puget-Willamette Lowland, the southern end of a trough from southeastern Alaska to the south end of the Willamette Valley (Ames 1994). Within this larger setting, southwestern portion of Cowlitz County exhibits relatively mild temperatures throughout the year, with cool, wet winters and warm, dry summers (Franklin and Dyrness 1988).

The project area is located in Franklin and Dyrness's (1988) regional Western Hemlock (*Tsuga heterophylla*) vegetation zone. This zone encompasses woodlands between the Pacific Ocean and the Cascade Mountains up to roughly 700 meters (2296 feet) above mean sea level. Dominant elements of this forest community include Douglas fir (*Pseudotsuga menziesii*), western hemlock (*Tsuga heterophylla*), and western red cedar (*Thuja plicata*) with few hardwood species. Along major watercourses, black cottonwood (*Populus trichocarpa*) and Oregon ash (*Fraxinus latifolia*) are dominant woodland species. In specialized habitats, such as riparian zones or recently disturbed areas, red alder (*Alnus rubra*), bigleaf maple (*Acer macrophyllum*), and golden chinquapin (*Castanopsis chrysophylla*) are widespread. Oregon white oak (*Quercus garryana*) is commonly found in drier soils, often thriving in areas too fire-damaged for evergreen species. Common forest understory plants throughout the zone include vine maple (*Acer circinatum*), hawthorn (*Crataegus douglasii*), wild rose (*Rosa gymnocarpa*), blackberry (*Rubus ursinus*), thimbleberry (*Rubus parviflorus*), and snowberry (*Symphoricarpos albus*) (Franklin and Dyrness 1988).

Aerial photography from 1970 to the present day shows the project area under industrial use. Presently, the project area appears to be paved except within the roadside ditch along North

Hendrickson Drive. Vegetation likely consists of mixed grasses and forbs typically found in roadside or disturbed settings, e.g. Queen Anne's lace and thistle.

### ***Soils***

The Natural Resources Conservation Service (NRCS) maps soils within the project area as Pilchuck loamy fine sand on 0 to 8% slopes (NRCS 2017). The Pilchuck series comprises very deep, somewhat excessively drained floodplain soils. Formed in alluvium, these soils consist of sand, fine sand, or loamy fine sand, with up to 15 percent rock fragments and 15 percent pumice fragments. According to the *Soil Survey of Cowlitz County, Washington* (Pringle and Evans 2006), the typical profile for this soil unit is as follows:

- Ap—0 to 8 inches; very dark grayish brown (10YR 3/2) loamy fine sand, grayish brown (10YR 5/2) dry; moderate medium subangular blocky structure; soft, very friable, nonsticky and nonplastic; common fine and medium roots; many fine and medium interstitial pores; moderately acid; abrupt smooth boundary.
- C1—8 to 12 inches; dark grayish brown (2.5Y 4/2) loamy fine sand, grayish brown (2.5Y 5/2) dry; single grain; loose, nonsticky and nonplastic; few fine roots; moderately acid; abrupt smooth boundary.
- C2—12 to 36 inches; dark brown (10YR 3/3) fine sand, grayish brown (10YR 5/2) dry; single grain; loose, nonsticky and nonplastic; few fine roots; 10 percent fine pumice fragments; slightly acid; gradual wavy boundary.
- C3—36 to 60 inches; very dark grayish brown (10YR 3/2) gravelly sand, grayish brown (10YR 5/2) dry; single grain; loose, nonsticky and nonplastic; 15 percent pebbles; slightly acid.

### **Background and Literature Research**

ASCC carried out ethnographic, historical, and archaeological background research using materials from the Washington State Department of Archaeology and Historic Preservation (DAHP) as well as resources located at the ASCC library and online. These materials included Washington State Archaeological Site Inventory files, cultural resource survey reports, General Land Offices (GLO) survey maps, various county road maps, Metsker atlases, and the Washington Information System for Architectural and Archaeological Records Data (WISAARD). ASCC used this background research to assess the archaeological probability of the project area as well as its general cultural context.

### ***Ethnographic Overview***

The archaeological record of the Lower Columbia River extends back to at least 10,000 before present (BP), but has been impacted by sea level rise, flood events, and alluvial deposition throughout the Holocene. Archaeologists have therefore found few sites in the Lower Columbia River floodplain that pre-date 2,000 BP. The earliest sites in the lower estuary are generally located on upland terraces (Pettigrew 1990).

At the time of Euro-American contact, the project area lay within Chinookan territory—specifically within the traditional lands of the Cathlamet people, speakers of an Upper Chinookan dialect (Silverstein 1990). The term *Chinook* refers to both a linguistic classification as well as a cultural one (Ruby and Brown 1976). Early on, Euro-American traders used the term to refer to the indigenous people living on the Pacific shore from Willapa Bay to Tillamook Head, along the Columbia River from its mouth to The Dalles and a short distance up the Willamette (Silverstein 1990). The division of the Chinookan language family into lower and upper groups reflects linguistic, cultural, and geographical distinctions. Geographically, the Lower Chinook occupied the land from the mouth of the Columbia River up to Tongue Point and Grays Bay (Silverstein 1990). The Upper Chinook lived farther up the Columbia River and its tributaries, reaching as far inland as Willamette Falls and the Columbia Plateau.

Upper Chinookan is divided into three dialects: Cathlamet, Multnomah, and Kiksht (Silverstein 1990). Located immediately upriver from the Lower Chinook, the Cathlamet group is named for a village recorded by Lewis and Clark as *Kath-la-mat*, located about ten miles upstream from Tongue Point. From Tongue Point and Grays Harbor, the Cathlamet range extended upstream past the mouth of the Kalama River. From Kalama, Multnomah territory extended upriver to encompass the Portland Basin. The current project area is essentially mapped at the join between Cathlamet and Multnomah, where the distinction between the two was likely blurred by trade, intermarriage, and geographic overlap (Silverstein 1990). Traits common to these Upper Chinookan peoples include a reliance on aquatic resources (primarily anadromous fish), woodworking (exemplified by planked houses and dugout canoes), twined basketry, untailed clothing, a social emphasis on rank, and a distinctive art style (ibid.).

Chinookan villages and clusters of villages, which have been called tribes, were the permanent villages that formed the small ethno-linguistic groups defined by ethnographers (Boyd and Hajda 1987). Most of the permanent villages were positioned near the mouths of tributaries entering the Columbia River. The smaller, task-specific sites were located along the main stem of the Columbia and on the islands in the river. Such sites were probably occupied at different points in the year for the procurement of various food resources. In late winter and early spring, the people moved from their winter villages to the Columbia's main stem to fish for salmon, sturgeon, eulachon (smelt) and other species (Butler and Martin 2013). Fall runs of salmon were more likely to be processed and stored for winter, although not to the same degree as those Chinookans living upstream at the eastern edge of their territory (Ibid.). Wapato tubers, camas bulbs, and berries rounded out the key staples (Gahr 2013). Hunting of game animals was also conducted and the meat, hides, and bone were used for food, clothing, and tools.

From their position along the Columbia River, the Chinook controlled much of the trade that plied the river. For thousands of years prior to the arrival of Euro-Americans to the region, the Chinook engaged in an extensive trade network that extended up and down the coast and reached far inland to include resources from the Great Basin, the Columbia Plateau, and the Willamette Valley (Hajda and Sobel 2013). During the ten years prior to Lewis and Clark's expedition, almost 90 Euro-American ships visited the Chinooks living at the mouth of the Columbia River for the purposes of trade (National Park Service 2016).

On its downriver and return journeys on the Columbia River, the Lewis and Clark Expedition camped near the mouth of the Kalama River on November 5, 1805 and again on March 27, 1806, recording the river's name variously as *Cath-la-haws*, *Calams*, and *Calamus* (Topinka 2017). The expedition noted an abandoned village below (north of) the mouth of the Kalama, but evidently did not go up the Kalama River itself. The first non-native to record doing so was Gabriel Franchère, a French-Canadian employee of the Pacific Fur Company, who in the spring of 1811 went up the Kalama River with a Chinookan guide.

"On the morning of the 6<sup>th</sup> [May 6, 1811] we ascended this small stream, and soon arrived at a large village called *Thlakalamah*, the chief whereof, who was a young and handsome man, was called *Keasseno*, and was a relative of our guide. The situation of this village is the most charming that can be, being built on the little river that we had ascended, and indeed at its navigable head, being here but a torrent with numerous cascades leaping from rock to rock in their descent to the deep, limpid water, which flows through a beautiful prairie, enamelled with odorous flowers of all colors, and studded with superb groves of oak." (Franchère 1854)

The Chinookan people, in general, achieved a high degree of socioeconomic complexity that is unusual among populations considered to be hunter-gatherers. Anthropologists generally attributed this complexity to the fact that Northwest Coast cultures had access to a dependable and seemingly inexhaustible food source in the seasonal salmon runs. More recent archaeological investigations have shown that, in addition to salmon, a much wider range of resources were relied upon than previously thought (Butler and Martin 2013; Gahr 2013; Ellis 2013) and the Chinook were organized strategically whereby the multi-family household was the primary unit of production, allowing for maximum output through specialization (Ames and Maschner 1999; Ames and Sobel 2013).

Although Kalama was predominantly Chinookan territory, it also saw use from the Salish-speaking Lower Cowlitz people. The Lower Cowlitz occupied approximately 30 villages along the Cowlitz River from present-day Mossyrock southward to within a mile or two of the Columbia River (The Columbian 1994). The Cowlitz centered their tribal territories on major salmon streams, but also had access to the productive inland prairies that were maintained through burning (Hajda 1990; Boyd, ed. 1999). Salish-speaking groups practiced extensive trade with each other; Cowlitz and Upper Chehalis would trade surplus camas for sturgeon and other maritime staples with the Lower Chehalis, the Quinault, and groups along the Columbia River (Hajda 1990). Dentalium shells served as the primary medium of exchange when direct goods-for-goods trading was not an option. Intermarriage between the groups encouraged such productive relationships although conflict sometimes disrupted these relationships.

The Upper Cowlitz, or Taidnapam (also Western Klickitat), were speakers of *Ichishkiin Sínwit* (Sahaptin) who started crossing the Cascade Mountains from the east after the introduction of the horse to the region. There is some evidence for this eastern culture at the mouth of the Kalama River in 1805, when the Lewis and Clark Expedition labeled houses there as "Cathlahaws," translated by Chinookan linguists as "those who have cous roots," a Plateau food staple (Boyd 2011:21). Ichishkiin Sínwit-speaking newcomers such as the Taidnapam may have adopted many of the practices of the Lower Cowlitz, which may have led Euro-American settlers to consider them of the same tribal ethnicity as the Lower Cowlitz (Hajda 1990).

In the 1850s, as the regional population swelled with immigrants looking for productive land, Euro-American settlers asked Congress to authorize a territorial government. During treaty sessions with area tribes in 1855, the Cowlitz declined to sign away their rights. As a result, the Cowlitz remained on their land but were not federally recognized as a tribe until 2002. After years of having their tribal headquarters in Longview, the Cowlitz Indian Tribe was granted its first reservation after the Federal Government's decision in 2014 to take 152 acres in Clark County near La Center into trust for the Cowlitz Indian Tribe.

### ***Historic Overview***

In 1792, the American merchant captain Robert Gray named the Columbia River after his ship, the *Columbia Rediviva*. On a voyage for the maritime fur trade, Gray entered the mouth of the river on May 11, 1792 and sailed 20 miles upriver, turning around at what later came to be known as Grays Bay. In October of the same year, British Lieutenant William Broughton of the Vancouver Expedition explored 100 miles upriver, reaching the western end of the Columbia River Gorge.

In the Kalama area, the first documented contact between Euro-American and Chinookan people occurred more than a decade later. The Lewis and Clark Expedition camped near the mouth of the Kalama River on November 5, 1805 and again on March 27, 1806, meeting local inhabitants by canoe and also noting an abandoned village, "*Cal-la-maks*" (Boyd 2011:21). Smallpox and other epidemics brought by eighteenth-century seafaring expeditions had devastated native populations by this time.

These early explorations opened the area for fur-trapping by the Pacific Fur Company, North West Company, and the Hudson's Bay Company (HBC), each of which established a presence along the Columbia River. The French-Canadian Gabriel Franchère explored the Kalama River for the Pacific Fur Company in 1811, visiting an occupied Chinookan village at the base of unnavigable falls (Franchère 1854). After 1821, the HBC dominated trade in the Northwest, initially from their headquarters at Fort George (near present-day Astoria), and after 1824, from their headquarters at Fort Vancouver.

As the fur trade established footholds for Euro-American settlement, the Pacific Northwest saw increasing numbers of overland immigrants. In 1848, U.S. Congress created the Oregon Territory, which included the present states of Washington, Oregon, and Idaho. Land was opened up for homesteaders by legislation such as the Donation Land Claim Act of 1850.

### **Early Historic Settlement**

In 1852, Ezra and Eliza Meeker loaded a covered wagon and crossed from Iowa into Oregon Territory with two yoke of oxen and three cows. Ezra ran a boarding house in St. Helens with his brother, worked as a logger and longshoreman, and in 1853 filed a Donation Land Claim above the mouth of the Kalama on the Columbia River, a location where the natural shoreline made for a good steamboat landing (Aichlmayr 1979; Becker 2009). Meeker built a cabin there, in what would later become downtown Kalama. According to the historical plaque outside the Kalama

Fire Department, the Meeker home site lay approximately 210 meters (690 feet) inland from the proposed T-barge location.

The Meeker family stayed on the claim for only a year before selling it to a John Davenport in 1854 (Topinka 2017). Meeker would go on to elsewhere earn a fortune in hops, plat the town of Puyallup and serve as its first mayor, work as a bank president, join the Klondike gold rush, author several books, and spend his later years working to commemorate the Oregon Trail, meeting with Henry Ford, Queen Victoria, and presidents Theodore Roosevelt and Calvin Coolidge along the way (Becker 2009).

The 1857 General Land Office (GLO) map of Township 6 North, Range 1 West, Willamette Meridian shows the project area overlapping the northern end of cultivated fields labeled “Davenport,” which border a small marsh (Figure 5). No houses are indicated in the vicinity. An unlabeled road is drawn alongside the Columbia River shoreline, passing northwest through the Davenport fields and ending less than half a mile northwest of the project area at “Hensil’s Lake,” named after early settler Smith M. Hensill (GLO 1863). The 1863 GLO map lays out donation land claims in the area, including the 160-acre Davenport claim, the roughly 535-acre Hensill claim to the immediate north, and the 320-acre Jacob Ahles claim to the south (Figure 6). Both GLO maps depict a small island immediately west of the project area, labeled “Upper Aery,” as well as Sand Island, which is farther out in the river. Subsequent dredging projects would result in the removal Upper Aery and the enlargement of Sand Island.

### The Founding of Kalama

In 1870, the Northern Pacific Railway bought up 700 acres along the Columbia River for the construction of a railroad terminus and headquarters (Hinchliff 2011). Within the year, a company town of roughly 3,500 had sprung up, with a railway roundhouse, wheelhouse, dock, and rail car shop, plus hotels, hospitals, stores, sawmills, machine shops, homes, saloons, a brewery, and a gambling hall. Recruiters brought in Chinese laborers from San Francisco, and the community soon had its own Chinatown.

The town of Kalama was unofficially incorporated on November 29, 1871, named after the Kalama River by railroad agent General John Sprague. As the Columbia River terminus of the new railroad, the town was given the slogan “Where Rail and Water Meet” (ibid.). In 1874, however, the Northern Pacific moved its western terminus to Tacoma. By 1877, the population of Kalama had declined from 5,000 to 700, which was enough for the steady business of ferrying railcars across the Columbia River to tracks in Goble, Oregon. The work was carried out by the *Tacoma*, a 1,362-ton sidewheeler said to be the second-largest ferry in the world (Aichlmayr 1979). Seasonal flooding often complicated the trip, as noted by Helen Hunt Jackson in 1882:

By boat from Portland down the Wallamet River [*sic*] into the Columbia, down the Columbia to Kalama, and from Kalama to New Tacoma by rail, is the ordinary dry-weather route from Portland to Puget Sound. Kalama, however, has a habit of ducking under, in the high times of the Columbia River; and at these seasons travelers must push on, northward, till they come to some spot where the railroad track is above water.

(Jackson 1882:219)



Figure 5. 1857 General Land Office (GLO) map of T6N, R1W, W.M. overlaid with the location of the current project area.





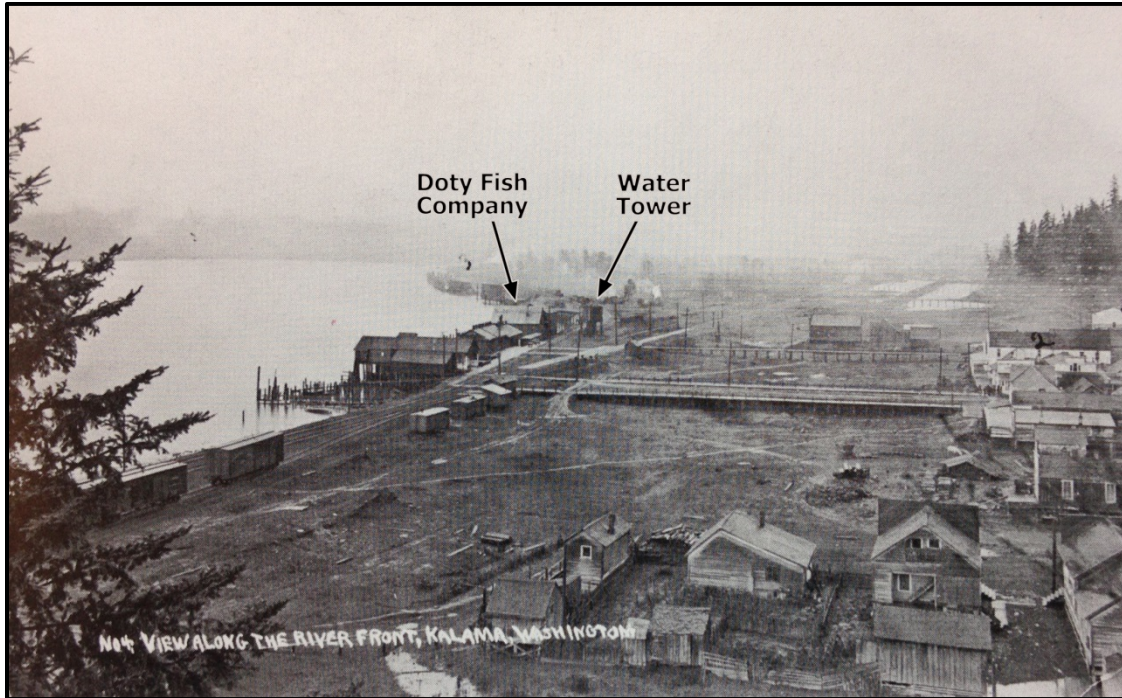
**Figure 6.** 1863 General Land Office (GLO) map of T6N, R1W, W.M. showing DLCs, overlaid with the location of the current project area.

The 1897 *Anderson's Map of Cowlitz County, Washington* places the Kalama end of the "N.P.R.Y. Ferry" route just northwest of the project area, at the end of a railroad spur which apparently passes through the project area (the scale of the map makes this detail unclear). The Northern Pacific Railway is shown to lead northward from Kalama toward Tacoma on the Washington side, and from Goble toward Portland on the Oregon side (Anderson 1897). The rail line between Kalama and Vancouver, Washington was completed in 1901 (Laubaugh and McCoy n.d.). In 1908, the Northern Pacific Railway completed a railroad bridge across the Columbia River at Vancouver, and the ferry business in Kalama declined accordingly.

Until the 1910s, the Columbia River navigation channel between Kalama and Goble was on the Oregon side of the river, but it was narrow, rocky, and only about 12 feet deep (Hinchliff 2011). During World War I, the U.S. Army Corps of Engineers (USACE) undertook major dredging of the channel, diverting it around the east side of Sandy Island to the Washington side of the river. The USACE installed jetties on Sandy Island (which also served as a convenient place to pump dredge sand), removed a large sandbar from near Kalama (probably the Upper and Lower Aery depicted on the GLO maps), and deepened the channel to 35 feet, all of which helped to turn the former rail-and-ferry town into a shipping town.

#### The Doty Fish Company / New England Fish Company

The best-known historic structures adjacent to the project area were the buildings and docks of the Doty Fish Company. C.A. Doty arrived in Kalama in 1889 as an agent for the Northern Pacific Railway, but by the 1890s, he saw more profit in buying, packing, and shipping salmon (Hunt and Kaylor 1917:608). The Doty Fish Company, started in 1895, was headquartered on a dock immediately south of the project area, flanked on the east side by a railroad spur nicknamed "the salmon track," where plant workers loaded boxcars with barrels of salted fish and the product of nearby canneries (Figure 7 and Figure 8). In 1908, the Boston-based New England Fish Company acquired an interest in the company, making it a wholly-owned subsidiary by 1921 (*Pacific Fisherman* 1921; Urrutia 1998; Archives West 2016). The Doty Fish Company caught fire in 1924, at an estimated loss of \$100,000. The plant was rebuilt at the same location and operated for several more decades (Figure 9) (Flom 2007). Aerial photos indicate that the plant and its associated dock were removed sometime between 1970 and 1977 (USGS 2017).



**Figure 7.** Oblique photo of the Kalama riverfront (undated, ca. 1900) with the Doty Fish Company plant in the background (Thomas 2016).



**Figure 8.** Northwest-facing photo of the original Doty Fish Company plant with the “salmon track” railroad spur in foreground, ca. 1895 - 1924 (City of Kalama 2016). The setting of the current project area is obscured to the immediate north (photo right) of these structures.



**Figure 9.** Northeast-facing photograph of the rebuilt Doty Fish Company building (undated but post-1924) (Thomas 2016:48).

### The Port of Kalama

On December 22, 1919, a group of citizens decided to form the Port of Kalama. The Kalama Port District was formed in 1920, raised money through bond sales, and purchased six city blocks on the waterfront at the northern edge of town for \$27,000. An additional \$55,000 went toward construction of a ferry slip at the foot of Kingwood Street, which was already somewhat industrialized (ibid.).

The 1921 U.S. Army Corps of Engineers (USACE) map of Kalama was evidently made using survey data compiled prior to 1920, and does not label the Port of Kalama as such (Figure 7) (USACE 1921). An L-shaped dock is shown to the northwest of the project area, and from there the ferry route to Goble, OR is mapped as a dotted line. The islands previously mapped as Upper Aery and Lower Aery are absent—evidently dredged away during the 1910s. Sandy Island still appears small relative to its current state. City blocks are platted out within port land to the north of the project area, which again suggests that mapping data was compiled before the Port of Kalama was formed. From the Northern Pacific tracks, one railroad spur ends approximately at the project area (evidently the Doty Fish Company “salmon track”) and one passes to the northwest, ending near the ferry slip. To the east of the project area, “WT” indicates the water tower near the Doty Fish Company plant, and “CH” likely indicates St. Joseph's Catholic Church, which was built in 1909 (Aichlmayr 1979).

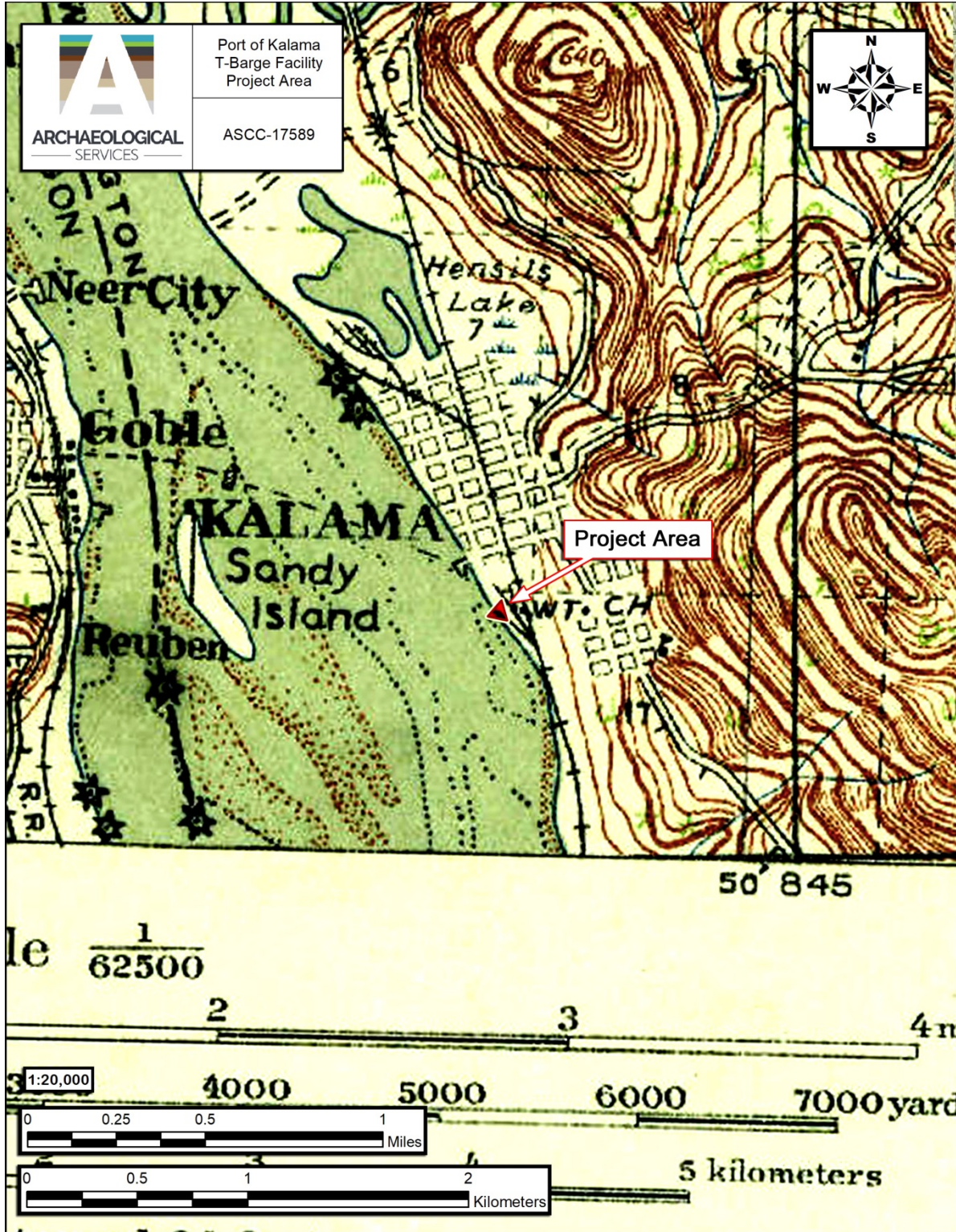


Figure 10. 1921 U.S. Army Corps of Engineers *Tactical Map, Washington-Oregon, Kalama Quadrangle* overlaid with the location of the current project area.

To raise revenue, the new Port of Kalama leased properties out to local businesses. The timber industry dominated the Port from the beginning, shipping logs and milling shingles, ties, and veneer. Fishing, strawberries, and other ventures took up the remainder of port leases. By the late 1920s, however, the port was land-poor and \$40,000 in debt (Hinchliff 2011). Despite the 1929 stock market crash and subsequent lease forfeitures, Kalama citizens voted to keep the port operational. Flooding in the mid-1930s destroyed the pilings of the port dock, which collapsed. The port lacked the funds to repair it, but the Works Progress Administration (WPA) stepped in and the dock was rebuilt. Leases for logging and wartime salvage projects put the port on more solid financial footing in the 1940s. When the WPA-built dock was washed away by flooding in 1948, the port was able to replace it on its own.

By the 1950s, the timber boom was over, and the port was soliciting business from other industries. In 1962, a new grain terminal was built for the North Pacific Grain Growers Inc., and the Dow Chemical Company opened a plant (Hinchliff 2011).

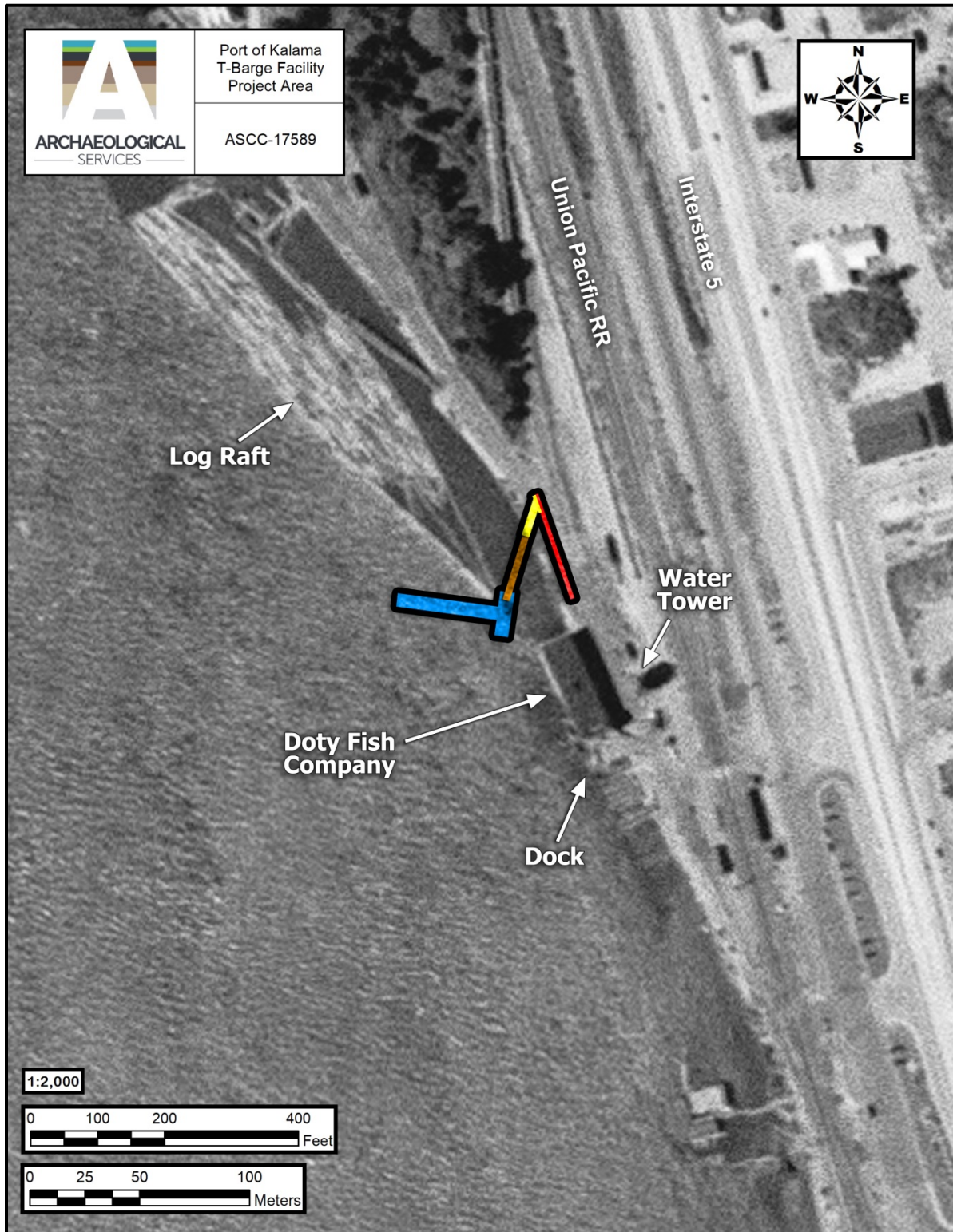
Aerial photography from 1951 shows the project area located immediately north of the Doty Fish Company plant, part of what appears to be an engineered waterfront (Figure 11). The 1953 USGS Kalama, WA quadrangle shows the port land to the north of the project area as industrial (Figure 12). The Doty Fish Company building is depicted as a large, unlabeled structure flanked by a railroad spur that continues northwest into the port land. Paralleling the main Union Pacific line (formerly the Northern Pacific), the route of Interstate 5 (I-5) is labeled as under construction. Offshore, Sandy Island is at approximately its current size.

The 1956 *Metskers Atlas of Cowlitz County, Washington* shows the city as subdivided to essentially its current extent, with the project area on Union Pacific railroad land (Figure 13).

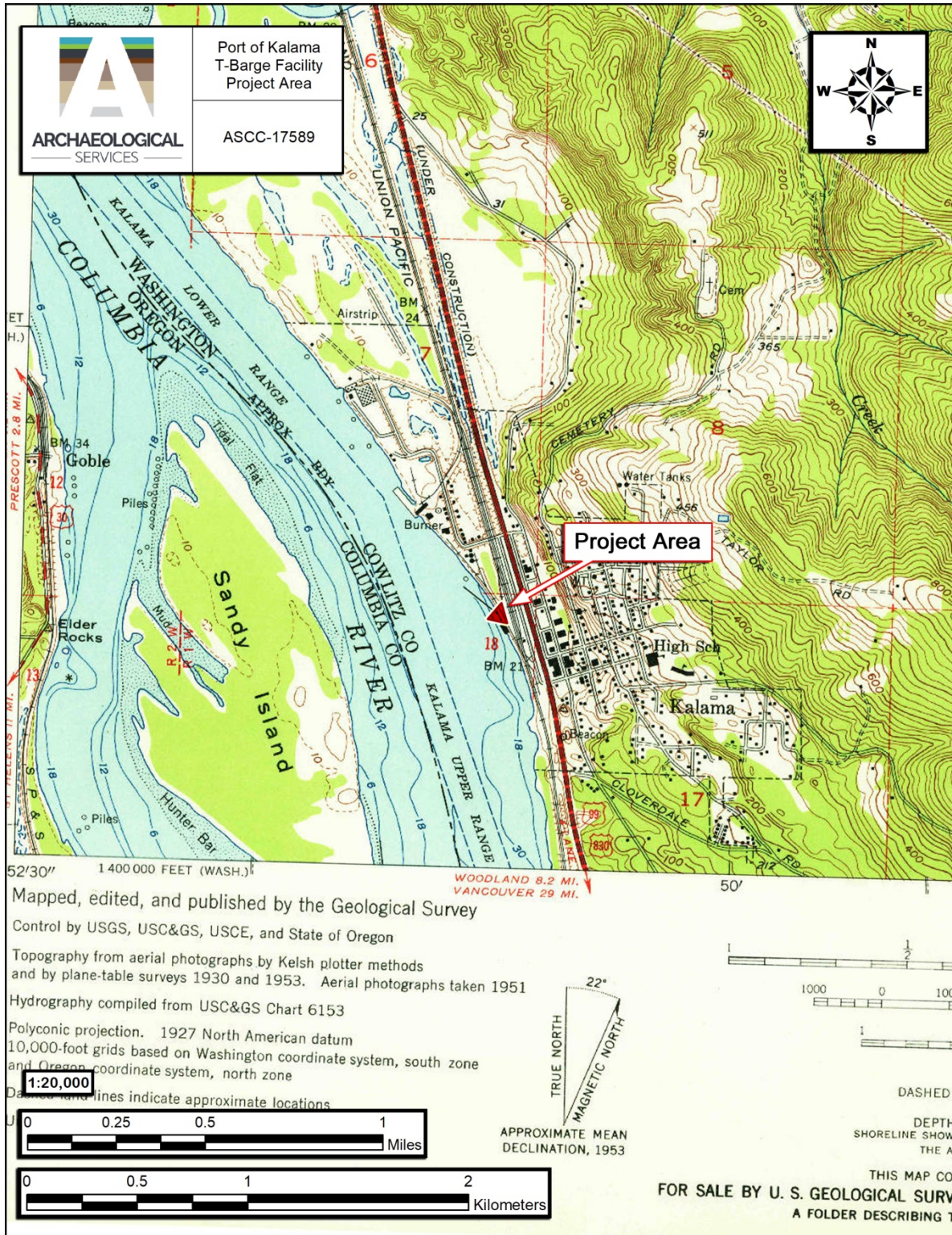
Under the federal Rivers and Harbors Act of 1962, the U.S. Army Corps of Engineers (USACE) undertook new dredging and diking projects on the Columbia River. At the Port of Kalama, the USACE dredged the navigation channel to at least 40 feet in depth (ibid.). This allowed the Port of Kalama to become a deep-draft port, servicing larger barges and moving more freight. By 1969, dredge deposits had been built up to create the Port Marina, which extends into the river immediately southwest of the project area, as well as an 18-foot-tall, 600-foot-long protective berm along the port shoreline (Urrutia 1998).

Aerial photography from July 8, 1970 shows Interstate 5, which was completed in 1960, and the port's marina bar prior to completion (Figure 14) (USGS 2017). The project area runs through partially overgrown land in the north, past an apparent scar in the vegetation that may be the former route of the old ferry railroad spur, with signs of extensive earthmoving to the immediate west. N Hendrickson Drive has not yet been built. The Doty Fish Company building remains in place, and log rafts appear to be contained within piles along the shoreline.

The 1970 photorevision of the 1953 USGS map shows the marina landform in its completed state. Aerial photography from 1975 shows N Hendrickson Drive as either under construction or completed along the route of the proposed trench (USGS 2017). Aerial photos from 1990 on document the ongoing transport-industrial use of the project area, with the paved area to the north now used as a log yard (Google Earth 2017).



**Figure 11.** 1951 aerial photograph of the Kalama riverfront overlaid with the locations of the project area and nearby features (USGS 2017).

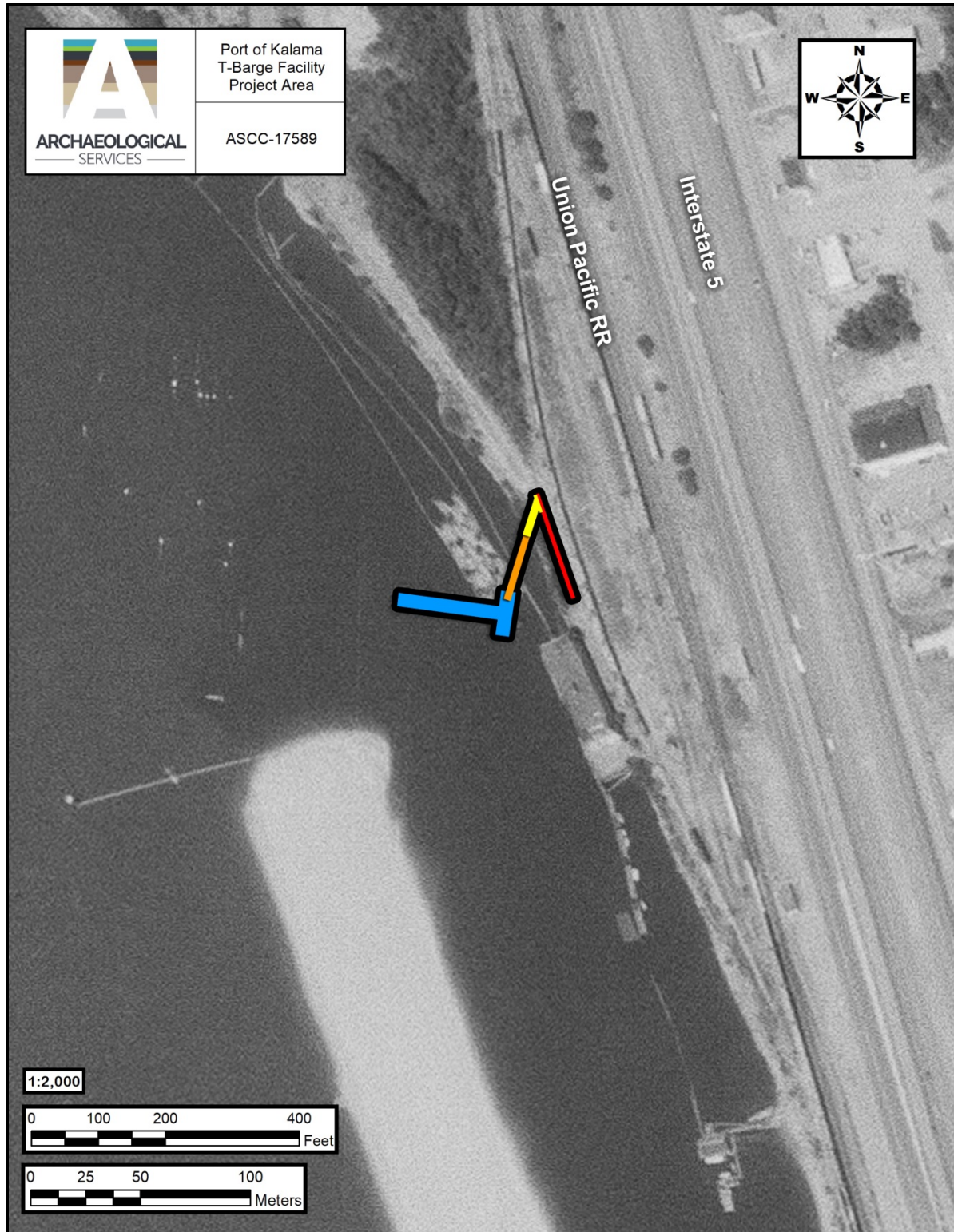


**Figure 12.** 1953 USGS Kalama, WA quadrangle, 7.5-minute series, overlaid with the location of the current project area.





Figure 13. 1956 Metskers Atlas of Cowlitz County, Washington map overlaid with the location of the current project area.



**Figure 14.** July 1970 aerial photograph of the project area, taken during the construction of the Port of Kalama Marina and prior to the construction of N Hendrickson Drive.

### *Previous Cultural Resource Studies*

Beyond compiling a general overview of the project area's archaeological, historical, and ethnographic context, ASCC sought out documentation of any specific cultural resources located within a one-mile radius of the project area. WISAARD currently lists two previous cultural resource investigations within this radius. Neither of the two recorded any archaeological resources.

- In 2007, Leslie Schwab produced the *Historic Structures Report for the North First Street Reconstruction Project, Kalama*, documenting the historic-era built environment along a roughly half-mile-long swath of North First Street within the city of Kalama, passing within roughly 500 feet (152 meters) east of the current project area (Schwab 2007). Schwab inventoried 16 historic properties as part of this effort, including the NRHP-eligible Kalama Lodge of the International Order of Oddfellows (I.O.O.F.) and the Kalama Shopping Center (see *Historic Properties*).
- In 2015, Historical Research Associates, Inc. (HRA) conducted geoarchaeological investigations for a culvert system replacement project overseen by the Washington State Department of Transportation (WSDOT). These investigations took place on the Columbia River shoreline roughly 0.7 miles upriver from the current project area, in Section 20. HRA inspected sediments from a series of 6-inch diameter core samples in order to determine whether archaeological materials or a buried, stable land surface could be present. HRA found that roughly the upper 15 feet (4.57 meters) of sediments here consisted of dredge fill. No cultural materials were identified (Punke 2015).

As of this writing, the WISAARD database lists no archaeological resources within a one-mile radius of the project area. The nearest recorded sites are located more than 1.8 miles northwest of the project area on the banks of the Kalama River. Inventory forms for precontact sites 45CW04 and 45CW05 refer to village occupation(s) near the mouth of the Kalama River, but provide little detail (Smith and Hudziak 1948a; 1948b). Site 45CW246 is described as a sparse scatter of debitage eroding from a trench in the river's north bank (Kramer 2003). Site 45CW127, recorded on the east side of I-5 and the north side of the Kalama, consists of lithic artifacts including net weights, a pestle, and at least one projectile point, all reportedly found during field clearing and plowing (Munsell n.d.). The largest reported assemblage belongs to site 45CW11, located roughly 2.0 miles north of the project area at a bend in the Kalama River, where Warren and Eng observed "60 arrow points, 4 very crude and several clear quartz; a few scrapers and knives, 2 stone beads, and a couple of bowls" on farmland above the northern riverbank (Warren and Eng 1955). Archaeological Investigations Northwest, Inc. (AINW) later interviewed the farmer, who had reportedly found net weights, mauls, and a large stone bowl, and "more than 200 arrowheads" on the property since the 1940s (Sharma et al. 2007).

### Historic Properties

WISAARD currently lists 86 historic property inventories on file within a one-mile radius of the project area, all within the city of Kalama. Of these 86 properties, 31 have been determined not eligible for listing on the NRHP, 51 have not been evaluated, and 4 have been determined

eligible (DAHP 2017). Given the low visual profile of the project, none appear to lie within the project viewshed.

- St. Joseph’s Catholic Church, located roughly 0.4 miles east of the project area at the corner of North Fourth Street and Elm. Built in 1909 at the site of an 1876 Catholic church, the church is described on the 1979 National Register nomination form as a wood-framed, gable-roofed, shiplap-clad structure with Gothic-style windows (Aichlmayr 1979).
- The Kalama Lodge I.O.O.F., located approximately 0.3 miles southeast of the project area at 222 North First Street. This brick commercial block/meeting hall was built in 1910 and was recommended eligible for the NRHP based on Criterion C, as an example of an I.O.O.F. hall and Classical Revival commercial architecture (Schwab 2007).
- The Kalama Shopping Center, located at 233 North First Street, roughly 0.3 miles southeast of the project area. Built in 1956, this low-slung, steel-framed structure was recommended eligible for the NRHP based on Criterion C, serving as an example of a Populuxe/Googie style of commercial-strip shopping center (ibid.).
- The Kockritz Hotel, located approximately 0.4 miles southeast of the project area at 164 North First Street, is recorded as one of the first brick buildings in Kalama, built in 1909. The building was recommended eligible based on Criterion C as an intact example of early 20th century downtown hotel (ibid.).

### Cemeteries

Two historic cemeteries lie within a mile of the project area. Neither cemetery is within the project viewshed.

- The Kalama Cemetery, also known as the I.O.O.F. or Oddfellows Cemetery, is located roughly one mile northeast of the project area, and was established in 1895 (DAHP 2017).
- The Masonic Cemetery, located roughly 0.5 miles east of the project area, was deeded in 1895 (ibid.).

## Summary and Discussion

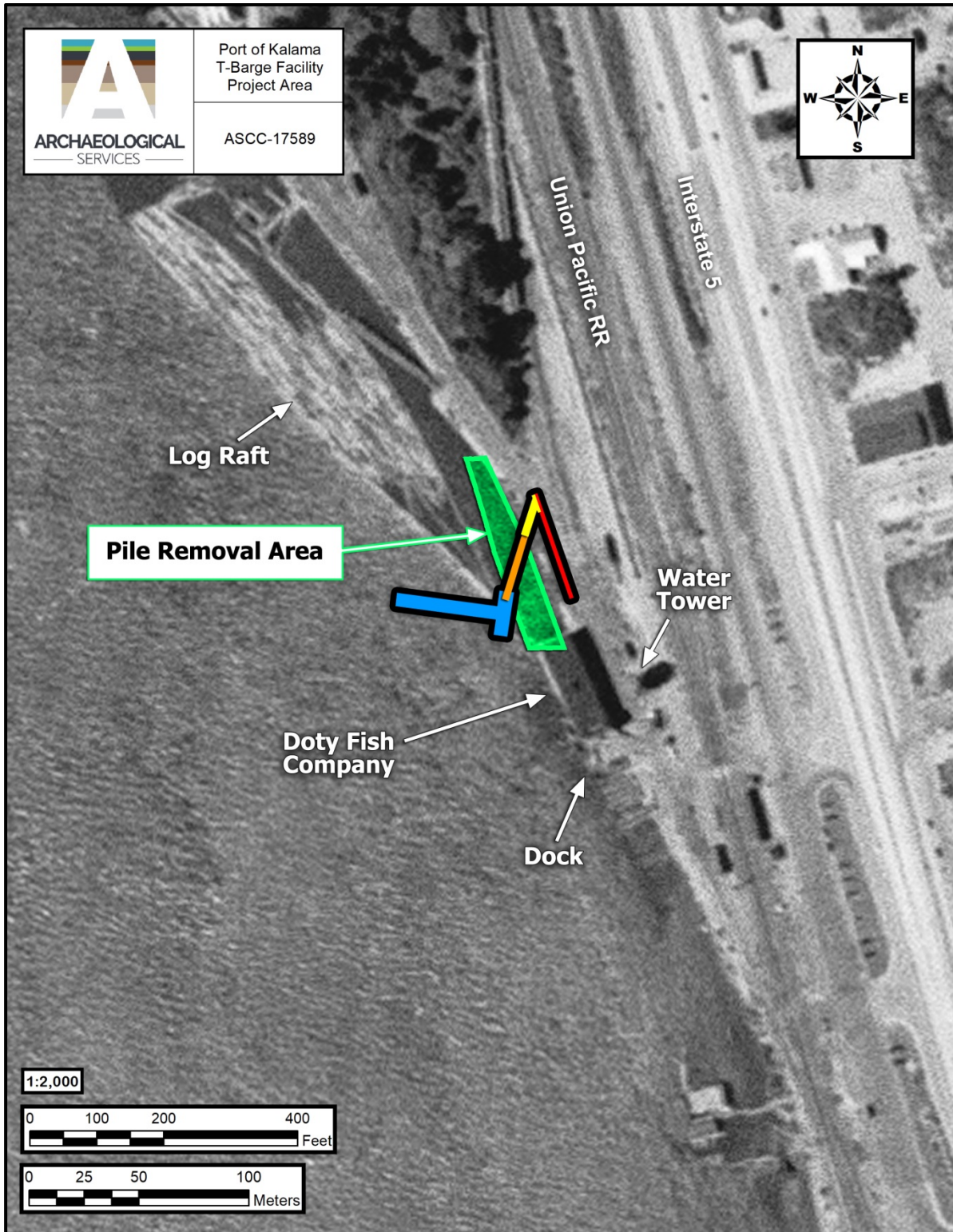
Given its advantages in terms of transportation and natural resources, the riverside location of the project probably saw steady use throughout the historic and precontact eras. The shores of the Columbia River were used for millennia by precontact populations, and the river is still of central importance to regional Tribes. The setting of Kalama retains interest throughout the historic era, particularly in its late-1800s role as the terminus of the Northern Pacific Railway and the railcar ferry to Goble.

Despite the area's ethnographic and historic background, ASCC's research indicates no recorded archaeological sites within a mile of the project area, and no significant historic properties within the project viewshed. The project setting has also been heavily modified. USACE dredging and berm construction, particularly in the 1910s and late 1960s, has reshaped the shoreline. Further disturbance to the project area is evident from the cutting and filling of industrial yards, the construction of the adjacent transportation corridor, and the removal of the docks and buildings of the former Doty Fish Company.

In light of these known, previous impacts to the shoreline and the small footprint of the Port of Kalama T-Barge Facility project, the potential for encountering any native, intact soils or precontact archaeological deposits appears to be low. That said, a literature review cannot completely rule out the presence of archaeological materials—either precontact (e.g. stone tools, flakes from toolmaking, thermal features, or in-water features such as fishing weir stakes) or historic (e.g. railroading debris or structural ruins)—within any given project area.

In the water, the proposed removal of roughly 80 historic-era timber piles will impact previously dredged river sediments, again having low archaeological potential. The piles themselves do not appear to offer any real potential in terms of historic data. Judging by their placement, some probably served as mooring points for log rafts, while some were supports for riverfront docks, particularly on the northern periphery of the former Doty Fish Company (ca. 1895 – 1970s) (Figure 15 through Figure 17). Despite the possible association with the Doty Fish Company, it appears unlikely that the remaining timber piles hold any new information regarding the history of Kalama.

Regarding the potential for indirect effects, it appears that the project will have no adverse effect upon the larger visual setting. Proposed impacts are low in profile, are in character with the port's existing visual landscape, and are obscured from the historic properties in the city by the I-5 road prism.



**Figure 15.** 1951 aerial photo of the project area with the pile removal area indicated in green, showing peripheral overlap with the former Doty Fish Company dock and plant.



**Figure 16.** North-facing photo of timber piles for mooring log rafts off the Kalama shoreline, early 1900s (Thomas 2016).



**Figure 17.** East-facing photo of the original Doty Fish Company plant (ca. 1895 – 1924) and support piles, located to the immediate south of the current project area (Thomas 2016:48).

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