

CULTURAL RESOURCES REPORT COVER SHEET

DAHP Project Number: 2022-10-06632

Author: Bethany K. Mathews

Title of Report: Cultural Resources Assessment for the Powersports Northwest
Showroom, 197 Hamilton Road N, Chehalis, Lewis County, WA

Date of Report: 5 October 2022

County(ies): Lewis Section: 15 Township: 13N Range: 2W

Quad: Napavine, WA Acres: 4.7

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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**Cultural Resources Assessment for
the Powersports Northwest Showroom,
197 Hamilton Road N,
Chehalis, Lewis County, Washington**

Prepared by:

Bethany K. Mathews, MA, RPA
Archaeologist & Principal
Antiquity Consulting, LLC
1107 West Bay Dr, Suite 101
Olympia, WA 98502
antiquityconsulting@gmail.com
www.AntiquityConsulting.com
360.819.4998

Prepared for:

JRHH Properties, LLC
154 Creekwood Lane
Chehalis, WA 98532
Ralph and Jonathan Hubbert

DAHP Project #:

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Lead Agency:

City of Chehalis

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EXECUTIVE SUMMARY

Antiquity Consulting was contracted by JRHH Properties, LLC to conduct a cultural resource assessment for a proposed showroom and warehouse for the Powersports Northwest Showroom, located at 197 Hamilton Road N, Chehalis, Lewis County, WA (Township 13N Range 2W Section 15 NW ¼ NW ¼; parcels 017897011001 and 017896006014). JRHH Properties, LLC plans to construct the new facility across a 4.7-acre project area. During the State Environmental Policy Act (SEPA) review for this project the City of Chehalis requested a cultural resources survey for the project due to the high probability for encountering archaeological resources in this area. Antiquity Consulting completed a cultural resources survey for the proposed project area in September 2022. No cultural resources were identified in the study area. Compliance with an inadvertent discovery plan is recommended.

INTRODUCTION

Antiquity Consulting was contracted by JRHH Properties, LLC to conduct a cultural resource assessment for a proposed showroom and warehouse for the Powersports Northwest Showroom, located at 197 Hamilton Road N, Chehalis, Lewis County, WA (Township 13N Range 2W Section 15 NW ¼ NW ¼; parcels 017897011001 and 017896006014). JRHH Properties, LLC plans to construct the new facility across a 4.7-acre project area. During the State Environmental Policy Act (SEPA) review for this project the City of Chehalis requested a cultural resources survey for the project due to the high probability for encountering archaeological resources in this area.

Project Background

During the State Environmental Policy Act (SEPA) review for this project the City of Chehalis requested a cultural resources survey for the project. Antiquity Consulting was contracted by JRHH Properties, LLC to conduct a Cultural Resources Assessment for the project. Per the Washington State Standards for Cultural Resources Reporting (Washington State Department of Archaeology and Historic Preservation 2022A), this cultural resource assessment was led by Secretary of the Interior-qualified Archaeologist Bethany Mathews, MA, RPA.

Project Description

JRHH Properties, LLC intends to construct the Powersports Northwest Showroom, located at 197 Hamilton Road N (parcels 017897011001 and 017896006014; Township 13N Range 2W Section 15; Figures 1-2). The project area encompasses 4.7 acres, and a portion of the proposed project area has previously been developed for commercial use. The proposed project includes utilization of an existing 1,200 square foot warehouse on the west side of the project area, construction of a 8,000 square foot warehouse, construction of a 30,600 square foot showroom/shop, and associated parking and utilities.

Tribal Coordination

The Confederated Tribes of the Chehalis Reservation, Nisqually Indian Tribe, Cowlitz Indian Tribe, Squaxin Island Tribe, Quinault Indian Tribe, and Yakama Nation cultural resources staff were notified of the archaeological survey schedule via email on 19 September 2022. At that time Antiquity Consulting notified the Tribes that a standard pedestrian and subsurface survey would be conducted at approximately 30-meter intervals, avoiding impervious surfaces. An online map of the planned shovel probes was provided via ArcGIS. Antiquity Consulting requested to incorporate information from the respective departments into the historic context and research design.

Regulatory Context

This survey was completed at the request of the City of Chehalis to meet the requirements of the State Environmental Policy Act (SEPA). SEPA requires that all major actions sponsored, funded, permitted, or approved by State and/or local agencies provide consideration of the impacts of the planned action on the environment, which includes properties of historical, archaeological, scientific, or cultural importance (Washington Administrative Code 197-11-960). The Department of Archaeology and Historic Preservation is the agency with the technical expertise to consider the effects of a proposed action on cultural resources and to provide formal recommendations to local governments and other State agencies for appropriate treatments or actions.

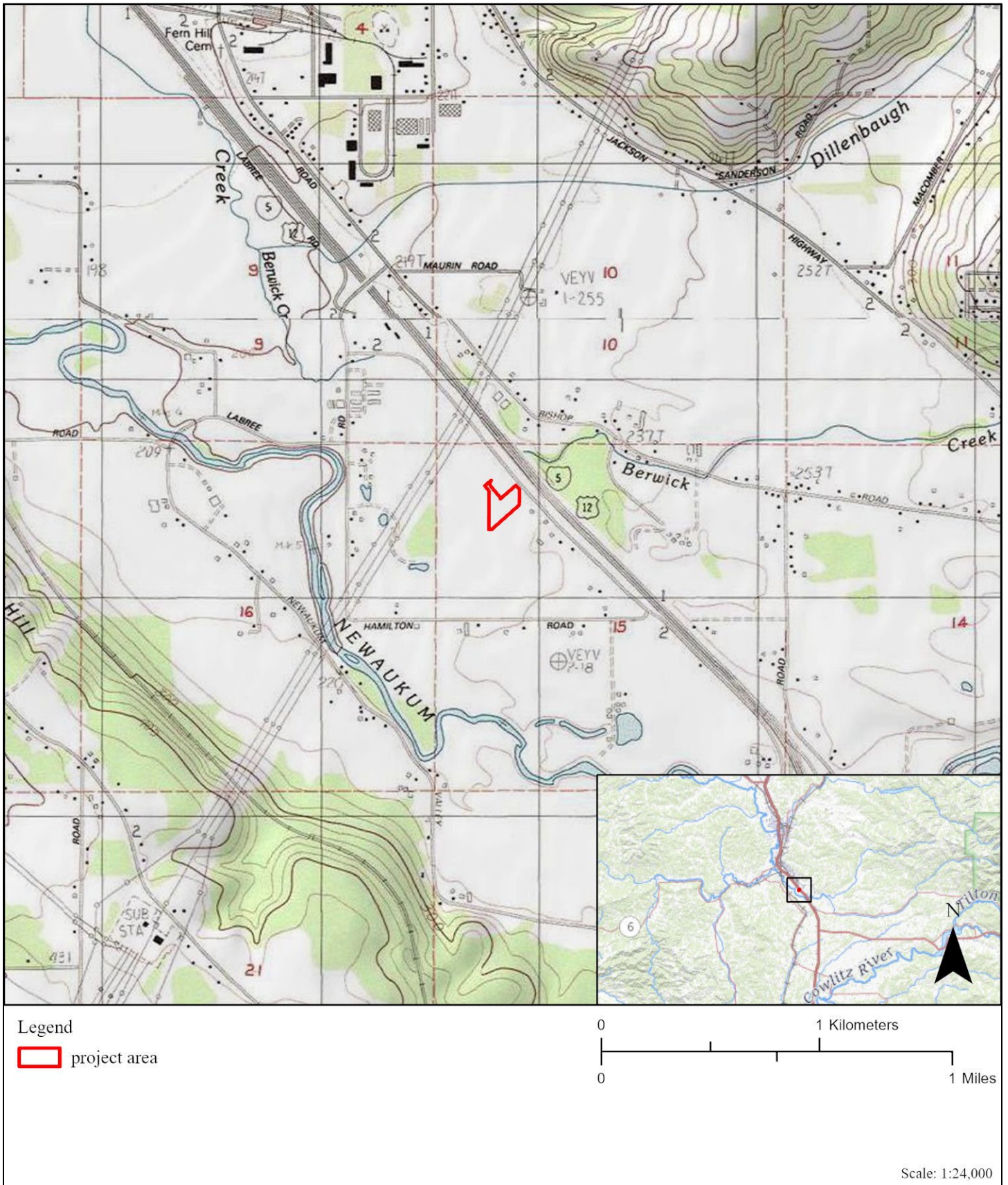


Figure 1. Project location marked on 1:24,000 Napavine, WA USGS 7.5-minute quadrangle.



Figure 2. Project survey map, courtesy JSA Civil.

Washington State Heritage Laws

Washington State protects its archaeology and heritage resources under various laws. In Washington State it is illegal to knowingly disturb archaeological sites or certain archaeological materials on state and private lands. Laws protecting these resources include the Archaeological Sites and Resources Law (RCW 27.53), Indian Graves and Records Law (RCW 27.44), Human Remains Law (RCW 68.50), and Abandoned and Historic Cemeteries and Historic Graves Law (RCW 68.60). Per RCW 27.53.060 and WAC 25-48-060 the Department of Archaeology and Historic Preservation may issue an archaeological site alteration/excavation permit for impacts to an archaeological site in accordance with a professional scientific research plan.

Evaluation of Historic Properties for the City of Chehalis Register

The City of Chehalis Historic Register is a list of buildings, sites, or districts identified by the City of Chehalis Historic Commission as having “significant character, interest, or value as part of the development, heritage, or cultural characteristics of the city, state, or nation.” To be listed on the City of Chehalis Historic Register a property must be 50 years old or of exceptional importance (Chehalis Municipal Code 2.66.110).

Evaluation of Historic Properties for the Washington Heritage Register

The Washington Heritage Register (WHR), which is maintained by the DAHP, is a list of historically significant districts, sites, buildings, structures, and objects that are considered significant in local or state history (Washington State Department of Archaeology and Historic Preservation 2018). To qualify for listing on the WHR a building, site, structure, or object must be at least 50 years old, or should have documented exceptional significance if less than 50 years old. The resource should have documented historical significance at the local, state, or federal level, and should maintain a high to medium level of integrity of important character defining features.

Evaluation of Historic Properties for the National Register of Historic Places

Evaluation of historic properties at local levels is typically modeled after evaluation of historic properties for the National Register of Historic Places. A historic property is defined as “a district, site, building, structure or object significant in American history, architecture, engineering, archeology or culture at the national, state, or local level.” These properties are typically evaluated in terms of historic significance, integrity, and the general stipulation that the property be 50 years old or older (for exceptions see 36 CFR 60.4, Criteria Considerations [a–g]). National Register Bulletin Guidelines state that to be eligible for listing in the NRHP, a historic property must represent a significant part of American history, architecture, archaeology, engineering, or culture (Little and Hardesty 2000; Shrimpton 1990). Additionally, to be considered eligible, a historic property must meet one or more of the four NRHP criteria:

- A) be associated with events that have made a significant contribution to the broad patterns of our history; or
- B) be associated with the lives of persons significant in our past; or
- C) embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D) have yielded, or may be likely to yield, information important in prehistory or history.

Most archaeological sites are evaluated under Criterion D, their potential to yield important information. This objective is accomplished by developing historic contexts. A historic context is a body of information about the past and the tangible expressions of past events organized by the elements of theme, place, and time (NPS 1991). The historic context for the project area is summarized in this report and serves as a foundation for evaluating cultural resources in the project area.

Historic Property Integrity

Integrity is the ability of a historic property to convey its significance. Integrity must be evident through historic qualities, which may include location, design, setting, materials, workmanship, feeling, and association (NPS 1991:1). Degree of integrity should be taken into consideration when evaluating resources under the NRHP criteria, for example:

- If eligible for its historic associations under Criterion A, then the resource should retain substantial aspects of its overall integrity, although design and workmanship may not weigh as heavily as those aspects related directly to its historic associations (NPS 1991:44-48).
- To be eligible for its association with a prominent person under Criterion B, the resource should retain some aspects of integrity, although design and workmanship may not be as important as the others (NPS 1991:44–48).
- To be eligible for its architectural merits under Criterion C, a resource must retain its physical features that constitute a significant construction technique or architectural style. Critical aspects of integrity for such properties are design, workmanship, and materials. Location and setting will also be important for those resources whose design reflects their immediate environment (NPS 1991:44–48).
- Resources significant under Criterion D may not have the type of integrity described under the other criteria but are considered to have integrity if these aspects support data potential (NPS 2020:35). Of the seven aspects of integrity, location, design, materials, and workmanship are generally the most important for Criterion D properties (NPS 1991:44–48).

ENVIRONMENTAL SETTING

The natural and cultural characteristics of a place inform the likelihood for encountering cultural resources at a geographic location. Natural and cultural characteristics of the project area were the foundation for establishing a research methodology for this cultural resource assessment. This assessment included a review of environmental information on the project area, as illustrated in reports on regional geology, local soils data, and the environmental history of the project vicinity. Post-depositional processes likely to affect any cultural deposits in the study area were also considered.

Geomorphology

The project is located in a Holocene alluvium deposit, on a low terrace of the Newaukum River.

Glacial Geomorphology

Puget Lowland landforms were largely shaped by Pleistocene glacial events (Kruckeberg 1991). Beginning two million years ago, the bedrock in this province was depressed and deeply scoured by glaciers, and sediments were deposited and often reworked as glaciers advanced and retreated at least seven times. A mantle of glacial drift and outwash deposits were left across much of the region by the end of this glacial period (Easterbrook 2003). The last glacial advance and retreat to cover the region, the Vashon Stade of the Fraser Glaciation began around 19,000 BP with an advance of the Cordilleran Ice Sheet into the lowlands (Porter and Swanson 1998). The Puget Lobe of this ice sheet advanced from the Cascade Mountains down into the Puget Lowland and reached the Olympia area about 17,350 BP (unknown author 2018). The Puget Lobe began to retreat shortly after reaching its terminus near Tenino and had retreated to Olympia by 16,650 BP (Porter and Swanson 1998). Glacial lakes formed around the margins of the Puget Lobe due to the high topography of the southern Puget Sound and the ice dam of the Puget Lobe which could not yet permit drainage of the glacial meltwater and local runoff to the Pacific Ocean (Figge 2008). Outflow from glacial-lake outbursts and subglacial fluvial erosion typically flowed south toward the Chehalis River valley, and later northward-flowing streams filled the deep glacial outburst troughs with sandy sediments (Walsh et al. 2003).

Local Geologic Units and Soils

The United States Geological Survey identifies the project area as being within geologic unit Qa (Figure 3; Washington State Department of Natural Resources 2020A, Sadowski et al. 2018). Unit Qa is a Holocene alluvium deposit consisting of unconsolidated or semi-consolidated alluvial clay, silt, sand, gravel, and/or cobble deposited primarily in stream beds and estuaries. This unit may include some lacustrine and beach deposits. Soils in the Puget Lowland typically form in weathered glacial materials. The project area is within the Lacamas, Olequa, and Reed soil units as mapped by NRCS (NRCS 2022; Table 1; Figure 4). Lacamas soils consist of very deep, poorly drained soils formed in mixed alluvium weathered from glacial and sedimentary sources on glacial terraces and footslopes. Olequa soils are very deep, well drained soils formed in mixed alluvium on high terraces. Reed soils form in depressions on low terraces adjacent to perennial streams, in alluvium weathered from shale, sandstone, siltstone, and glacial drift.

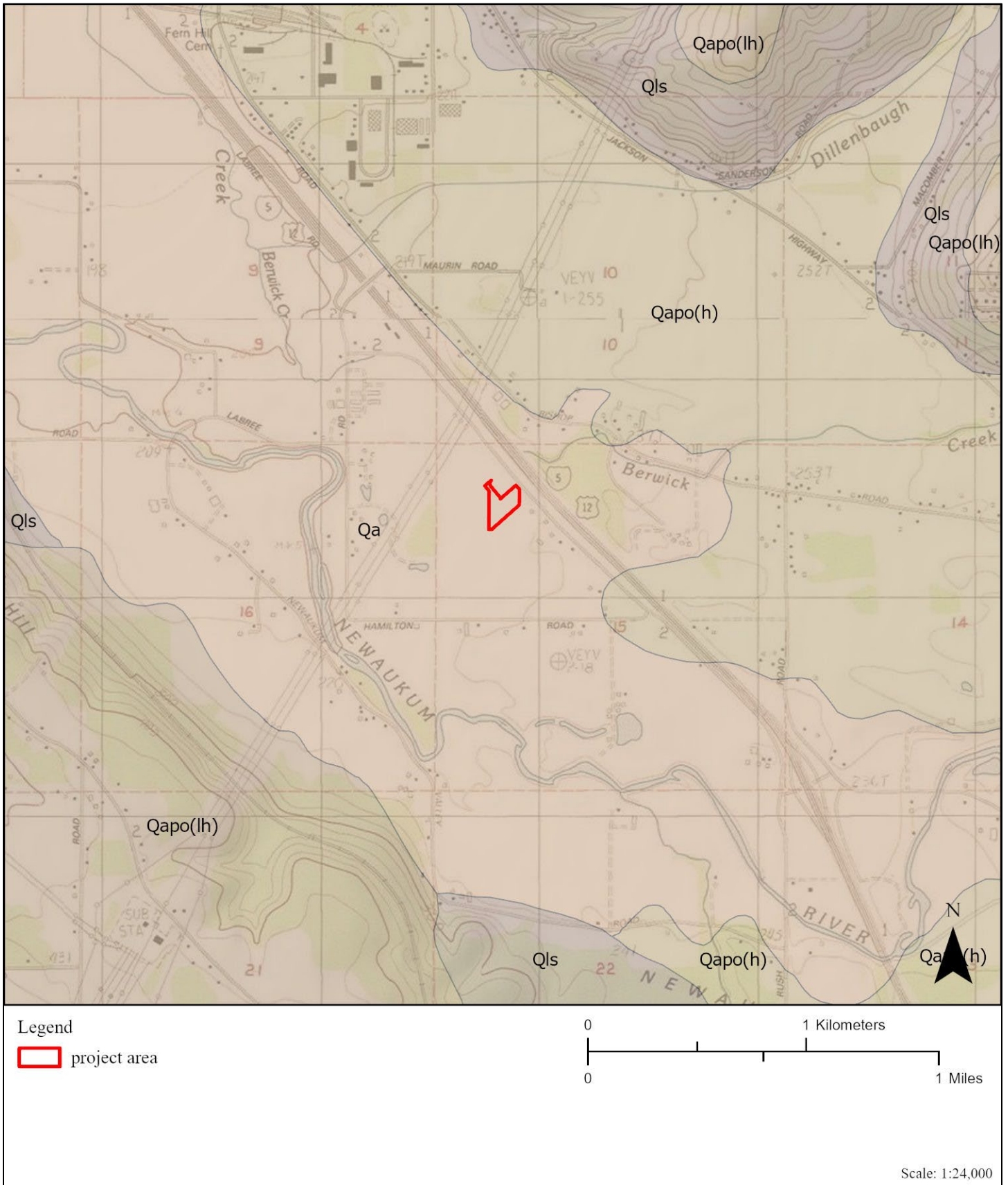


Figure 3. Surface geology of project vicinity (data from DNR 2022A).

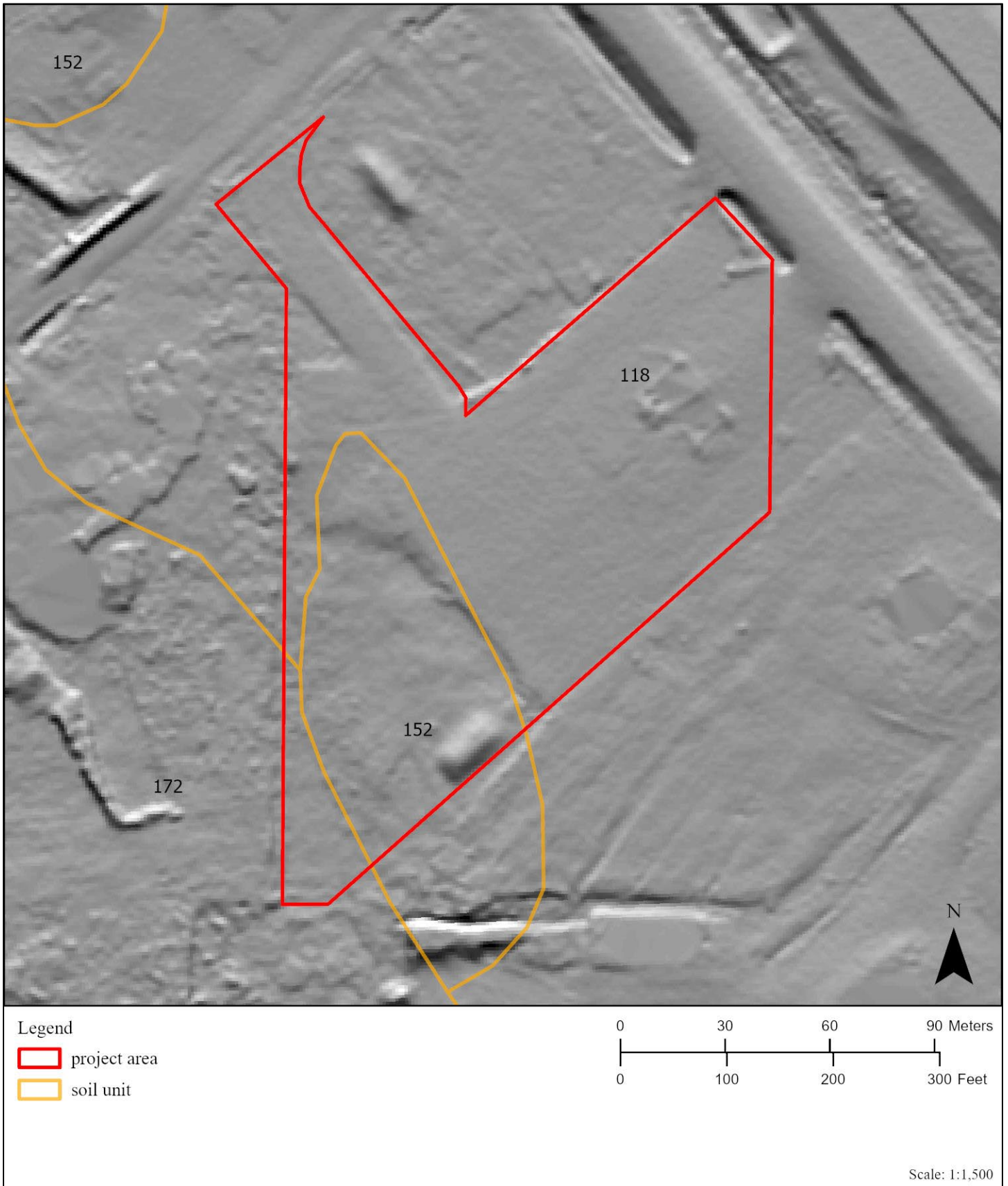


Figure 4. Soil units mapped in project area over LiDAR image (data from WSDNR 2022B and NRCS 2022).

Table 1. Soil unit descriptions of project area.

Note: derived from Natural Resource Conservation Service 2022.

Map Unit	Soil	Horizon	Description	Depth (cm)	Depth (in)	Acidity
118	Lacamas silt loam	Ap	Very dark grayish brown silt loam	0-18	0-7	Very strongly acid
		E1	Dark grayish brown silt loam	18-38	7-15	Very strongly acid
		E2	Grayish brown silt loam	38-43	15-17	Very strongly acid
		B/E	Olive gray silty clay	43-48	17-19	Very strongly acid
		Btg	Olive gray silty clay	48-191	19-75	Very strongly acid
		C	Olive gray gravelly clay	191-203	75-80	unknown
		152	Olequa silt loam	Oe	Moderately decomposed leaves and twigs	5
Ac1	Very dark brown silt loam	0-8		0-3	Slightly acid	
Ac2	Dark brown silt loam	8-25		3-10	Slightly acid	
BA	Dark brown heavy silt loam	25-51		10-20	Moderately acid	
Bt1	Dark brown silty clay loam	51-91		20-36	Moderately acid	
Bt2	Dark yellowish brown silt loam	91-130		36-51	Very strongly acid	
BCt	Dark brown silt loam	130-165		51-65	Strongly acid	
172	Reed silty clay loam	Ap	Very dark grayish brown silty clay loam	0-15	0-6	Medium acid
		A3	Very dark grayish brown silty clay loam	15-36	6-14	Medium acid
		B21tg	Brown silty clay	36-51	14-20	Very strongly acid
		B22tg	Very dark gray clay	51-64	20-25	Very strongly acid
		B23tg	Dark gray clay	64-79	25-31	Very strongly acid
		B24tg	Dark grayish brown silt clay loam	79-94	31-37	Strongly acid
		B25tg	Black clay	94-152	37-60	Very strongly acid

LiDAR Imagery Review

A review of LiDAR imagery of the project area indicates that some mechanical grading for roadway and structure construction has occurred in the northern and eastern portions of the project area (see Figure 4). The southern portion of the project area encompasses a natural sink which has also been impacted by mechanical grading.

Water

The study area is situated on a shallow terrace of the Newaukum River and is located 870 meters northeast the Newaukum River and 170 meters south of Berwick Creek. The confluence of the Newaukum River and the Chehalis River is located 5.7 kilometers northwest of the project. The Chehalis River valley and associated drainages are prone to flooding and historically the locations of the river channels have changed.

Vegetation and Fauna

The project area is located within the Western hemlock (*Tsuga heterophylla*) vegetation zone (Franklin and Dyrness 1988). The Puget Lowland forest populated the region shortly after retreat of the glaciers in the late Pleistocene. Prior to historic-era clearing, western Washington forest overstories were dominated by western red cedar (*Thuja plicata*), western hemlock (*Tsuga heterophylla*), and Douglas fir (*Pseudotsuga menziesii*). Olequa soils support Douglas fir (*Pseudotsuga menziesii*), red alder (*Alnus rubra*), bigleaf maple (*Acer macrophyllum*), and western hemlock (*Tsuga heterophylla*), with an understory of trailing blackberry (*Rubus*

ursinus), Oregon grape (*Mahonia aquifolium*), violet (*Viola* spp.), longtube twinflower (*Linnaea borealis* ssp. *longiflora*), western swordfern (*Polystichum munitum*). Lacamas soils support Douglas fir (*Pseudotsuga menziesii*), red alder (*Alnus rubra*), western hemlock (*Tsuga heterophylla*), western red cedar (*Thuja plicata*), and Oregon ash (*Fraxinus latifolia*), with an understory of spirea (*Spiraea Douglasii*), rose (*Rosa* spp.), salal (*Gaultheria shallon*), vine maple (*Acer circinatum*), western brackenfern (*Pteridium aquilinum*), longtube twinflower (*Linnaea borealis* ssp. *longiflora*), violet (*Viola* spp.), trailing blackberry (*Rubus ursinus*), red huckleberry (*Vaccinium parvifolium*), salmonberry (*Rubus spectabilis*), beaked hazelnut (*Corylus cornuta*), and inside-out flower (*Vancouveria hexandra*). Reed soils support cottonwood (*Populus trichocarpa*), red cedar (*Thuja plicata*), western hemlock (*Tsuga heterophylla*), red alder (*Alnus rubra*), with an understory of marsh grasses, forbes, and shrubs (NRCS 2022).

A wide variety of mammals and fish are adapted to the Puget Sound region. Vertebrate animals common in the Puget Lowland forests include large vertebrates such as black bear, cougar, elk, and deer; small to mesocarnivores such as raccoon, opossum, bobcats, weasels, and shrews; aquatic mammals such as river otters, beavers, muskrats, and nutria; and a large variety of small vertebrates, including snakes, frogs, mice, rabbits, squirrels, moles, and gophers (Kruckeberg 1991). Prairies were managed by anthropogenic fire by indigenous peoples to drive game into hunting ranges, promote camas and berry yield, and prevent encroachment by Douglas fir (Kruckeberg 1991:286).

CULTURAL SETTING

The project vicinity has hosted a variety of significant historic events of local, regional, and national importance. The probability for historic properties to be located within the project area is primarily based on a review of local environmental and cultural contexts, as well as local cultural resource studies and known cultural, historic, or archaeological sites. Research conducted for this assessment included review of local histories and ethnographies, and resources available in the DAHP's Washington Information System for Architectural and Archaeological Records Data database, United States Surveyor General Bureau of Land Management's General Land Office Survey Records database, HistoryLink.org, HistoricMapWorks.com, and USGS Historical Topographical Map Explorer.

Precontact and Ethnohistoric Periods

The project is located in the traditional territory of the *Kwaialk* (Upper Chehalis) (Carpenter 2002; Marr et al. 1989:1; Spier 1936:26-32; Suttles and Lane 1990:485-487). The Chehalis fished the Chehalis, Black, Cowlitz, Satsop, Wynoochee, Elk, Johns, Skookumchuck, and Newakum Rivers (Confederated Tribes of the Chehalis Reservation 2021). In the ethnographic period, *Kwaialk* (Upper Chehalis) inhabited the Chehalis River watershed from Cloquallam Creek to the upper reaches of the Chehalis River (Hajda 1990:504; Marr et al. 1989:1; Miller 2017; Ruby et al. 2010:157; Spier 1936:26-32; Suttles and Lane 1990:486). The name Chehalis, derived from the word for sand, originally referred to a village near Westport which was later applied to the river.

Kwaialk Placenames and Villages

Although no village sites are located in the immediate vicinity of the project area, the concentration of ethnographic-period village sites along the Chehalis River and associated drainages suggests the project vicinity was well-traveled by *Kwaialk*. Consulted ethnogeographic resources do not specifically name cultural places within 2 kilometers of the project, aside from the Newaukum River, however Kinkade (1991) identifies ten *Kwaialk* placenames within 10 kilometers of the project: 1) *kwáláxwàn'* "where the rail came down", Chehalis; 2) *Poisal* "bent lake", a lake below Chehalis; 3) *náwaq^wm* "big prairie", Newaukum River; 4) *náwq'u*, a place south of Newakum; 5) *la tc'*, a prairie just south of Napavine; 6) *napaw n*, Napavine; 7) *néx^wc'al'x* "crawfish river", South Fork of Newaukum River; 8) *xwát*, North Fork Newaukum River; 9) *xwaxwatúxwaxwatu*, Little North Fork; 10) *xatxato*, a prairie near Newaukum; and 10) *lakwítu*, Claquato Prairie. Kinkade (1997) identifies four Cowlitz place names within 10 kilometers of the project: 1) *nulk-tsulk*, Newaukum River; 2) *náwaq^wm*, Newaukum Prairie; 3) *lapa'ləm*, an unnamed creek near Newaukum Prairie; 4) *h-kwáto'*, Claquato Prairie.

The following village descriptions are based on information in Marr et al. 1989, Miller 2017:100,111; Palmer and Stevenson 1992; and Upton 1971:

Tè `wt`n / Skookumchuck River

Tè `wt`n "fording place" was located a mile above the mouth of the Skookumchuck River, at the location now known as Waunch Prairie, north of Centralia.

'aqàygtwas / Grand Mound

The Grand Mound area is rich with important *Kwaialk* sites. Grand Mound is known as a place where part of a star came to earth, and the mima mounds to the west were once porpoises (Miller 2017:100). The settlement at

Grand Mound called *`aqàygtwas* (“long prairie”) was a relatively large settlement. The Baker/Rochester Prairie was called *Ich-tals*.

Mouth of Lincoln Creek

A village was located at the mouth of Lincoln Creek. Lincoln Creek was an important place for camas and elk.

Mouth of Scatter Creek

The section of Scatter Creek between Rochester and Tenino was called *Q/waxtn* while the Nisqually called the creek *Wu-thlald*. In winter, Scatter Creek had an abundance of Coho salmon, while Prairie Creek had an abundance of Sockeye salmon.

s`àcəl`'t & Black River

The village *s`àcəl`'t* “made lake” was located at the mouth of the Black River. A village below the foothills of the Black Hills on the Black River, at the location that would become known as Gate, was a place for burial, ceremony, and potlatching at the time of American colonization. West of Rochester an overland trail, which required portage of canoes, was used during travel to Mud Bay, where *Kwaiailk* would go for shellfishing and fishing.

Mouth of Cedar Creek

A village and fish trap were located near Cedarville on the Chehalis River.

Porter Creek

A village was located at the mouth of Porter Creek below Porter.

`nsxàk^wm / Mox Chehalis

The village *`nsxàk^wm* “carrot place” was located near Malone.

Resources

Kwaiailk territory was primarily inland, and as such plant resources were more important here than they were for other Coast Salish peoples (Hajda 1990:507). Prairies were critically important to local economies because they offered diverse resources (Smith et al. 2008:17). *Kwaiailk* burned prairies every 2 to 3 years to manage plant resources and animal forage (Storm 2004:4). The richness and diversity created by this maintenance of the landscape made these prairies critical places for hunting and gathering in the region (Storm 2004:2). Women from several villages would congregate at camas grounds when they were ready for harvesting (Marr 1989: 5). Camas bulbs were carried home after gathering, typically in the late spring and cooked in an outdoor fire pit or boiled. Many other types of roots were collected on prairies as well. Fish have always been a staple of local diet (Carpenter 2002). Culturally important fish species include Chinook, Chum, Humpback, Coho, and Sockeye salmon; trout; smelt; flounder; and herring; as well as less available kinds of fish such as cod, perch, skate, sole, bullhead, devil fish, and eels. Freshwater fishing typically occurred in the quieter waters of river tributaries, where fish weirs could safely be constructed without fear of loss to seasonal flooding. Fishing in marine waters was accomplished by canoe with nettle string nets or a clam-baited hook on a line. When fishing in a cove or eddy, fish could be speared or clubbed by wading from the shore. Whales, sharks, seals, and halibut were rarely encountered in the Puget Sound.

Coast Salish Dwellings

Villages in the southwestern Coast Salish region typically housed a group of 25 to 300 people, usually consisting of a man and his wife/wives, their unmarried children and adult sons, and their adult son's families (Hadja 1990:511). Marriage was exogamous, and children usually retained a strong connection to their mother's home village. Winter dwellings at village sites were typically gable-roofed houses large enough to house at least two to four nuclear families, while temporary summer dwellings were typically constructed of cedar bark slabs or pole frames covered with mats or boughs (Hadja 1990:509). When heads of households died, the house may be rebuilt nearby, or the household might disband and establish several new houses.

Three forms of permanent dwellings were used in the Coast Salish region in the ethnohistoric period (Waterman and Greiner 1921). Quinault, Chehalis, Chinook, Clatsop, and Wishram houses were typically "gabled" and measured up to 25 by 75 feet, with a single ridgepole in the center, vertically planked walls, vertically or horizontally planked roofs, and an oval or circular door facing the water. A 3- to 6-foot-deep pit was featured at the center of the dwelling. The most common form throughout the Puget Sound, and including the Makah, Chimakum, and Quileute, was the "shed" style, which measured 40- to 90-foot wide by 500- to 1500-foot long. These dwellings usually paralleled the beach, with entrances facing the water and roofs slanting toward the back of the dwelling. The "shed" style homes featured a 1-foot-deep trench extending the length of the building, and some featured one or more central pits. "Gambrel" style houses were also constructed in the Puget Sound area, featuring lean-tos on one or all sides of a "shed" style dwelling. Large ceremonial or festival houses might be temporarily dismantled seasonally, and boards were used at temporary shelters. Summer dwellings were temporary and constructed of cedar bark slabs or pole frames covered with mats or boughs (Hadja 1999:509).

Archaeological Context

Thousands of years of human occupation in the Puget Sound and Chehalis River area have been summarized in a number of archaeological, ethnographic, and historical investigations over the past 60 years, providing a regional context for evaluating cultural resources in the project area (e.g. Blukis 1987; Greengo 1983; Hajda 1990; Matson and Coupland 1995; Nelson 1990; and Suttles and Lane 1990). Archaeological context for evaluating resources in the project area is provided by the local and regional chronological sequence and research problem domains included in Ames and Maschner (1999), Carlson (1990), Larson and Lewarch (1995), Wessen and Stilson (1987), and others.

Historic Period

The landscape of western Washington has been radically transformed over the last 150 years, transitioning from old-growth forest to timberland and farmland, to its current use for residential, recreational, agricultural, and industrial purposes. This shift of land use is typical of western US settlement patterns. The history outlined in this report focuses on regional events as they pertain to cultural resources in the project vicinity.

History of Land Ownership in Washington State, 1800s to 1900s

The first non-native immigrants to the area were European, Hawaiian, and Metis employees of the Hudson's Bay Company (HBC) who arrived in the early 1800s with the development of HBC trading posts and agricultural stations (Nisbet and Nisbet 2011). The Puget Sound Agricultural Company (PSAC), an agricultural subsidiary of the HBC, was established in 1838 (Crooks 2007). PSAC operations focused at two locations: one at Cowlitz Farm (Toledo, WA) and the other at Fort Nisqually (DuPont, WA). By the mid-nineteenth century,

the PSAC holdings included 150,000 acres between the Puyallup and Nisqually Rivers, much of which was worked from outstations and satellite farms.

The project vicinity was jointly occupied by the United Kingdom and the United States until the Oregon Treaty of 1846. The presence of the HBC, a British company, began to decline at this time, being replaced by American settlement and industry. Few American settlers lived in what would become Oregon Territory by the 1840s. To encourage American settlement in Oregon Territory, the US passed the Donation Land Claim Act of 1850, which amended previous land claim laws and required that land surveys and claims conform to government standards.

The Donation Land Claim Act was passed prior to treaty discussions with the native peoples of what would become the Washington Territory. The act granted 320 acres of land to white male citizens over 18 (Riddle 2010). A married man could claim 640 acres. Recipients only needed to prove, within 4 years, that they lived on and cultivated the land. If a claimant arrived between 1850 and 1855, they could claim 160 acres if single and 320 acres if married. In 1854, an extension of the act also allowed for purchase of the claims at \$1.25 an acre instead of proof of cultivation and residence. About 25% of western Washington lands were claimed through the Donation Land Claim Act (Mathews 2019).

In 1862, the United States government passed the Homestead Act, which granted 160 acres to heads of households (Muhn and Hanson 1998:20). Homestead applicants were issued a patent on their land if they either proved residence and cultivation after five years, requiring the investment and labor of building a residence, clearing land, and planting crops; or they could purchase the land via a “cash entry” after only 6 months. Only about 40% of claims were “proved up” and 20% of lands in Washington State were claimed through this act (Mathews 2019). In Lewis County, 2% (n=44) of Homestead Act patents were granted to women, which is much lower than in other parts of the West but typical for western Washington (Mathews 2021).

The United States also granted lands directly to railroad companies to encourage the development of transcontinental rail lines in the 1860s (Muhn and Hanson 1988:21). In 1862, rail companies were granted five alternate odd-numbered sections for each mile of planned railroad, within 10 miles of the planned railroad. In 1864, this was increased to twenty sections for each mile of railroad. Railroad land grants were considered controversial, as they limited the potential for settlement of the area, and the policy of granting to railroads ended in 1871.

The United States passed several land grant acts and amendments to the Homestead Act through the early 1900s, to encourage settlement and industry in the west. The Timber Culture Act of 1873 granted 160 acres to individuals who planted 40 acres with trees, with trees spaced no more than 12 feet apart (6,750 trees), for a period of 10 years (Muhn and Hanson 1988:22). In 1877, the Desert Land Law granted 640 acres to individuals who paid \$0.25 an acre and irrigated dry, treeless property within 3 years. The Dawes Severalty Act of 1887 assigned 160-acre allotments to individual tribe members and opened the remainder of lands to homesteaders (Wilma 2000). The Enlarged Homestead Act of 1909 increased the maximum homestead grant acres to 320 acres for individuals who homesteaded non-irrigable lands (Bradsher 2012). The Stock Raising Act of 1916 granted up to 640 surface acres, to include lands that were deemed only useful for grazing and raising forage crops (United States Congress 1916).

Early American Settlements in Lewis County

American settlers in the region began organizing for self-governance in 1851, resulting in the establishment of Washington Territory in early 1853. The first American settler to claim land in what would become Lewis County was John R. Jackson, an Englishman who claimed prairie land north of the St. Francis Xavier Mission in 1844 (McClland 1953:12). In 1845, the southern Puget Sound became the site of the first large American settlement in what would become Washington Territory (Dougherty 2006). The Simmons-Bush Party, a group of 31 settlers who traversed an overland trail from Missouri, settled several claims in the Olympia/Centralia area (Crooks 2009:20; Millner 1995:14). The Simmons-Bush party included Isabella and George Bush, and their six sons, who emigrated from Missouri in 1844 in hopes of avoiding racial prejudice and establishing a better life for their family (Olsen and Stevenson 2007). By 1850, many settlers had immigrated to the area and community centers like Monticello began to develop.

During the Puget Sound War, an armed conflict that occurred between 1855–1856, bands of Puget Sound peoples were confined to Squaxin Island and Fox Island (Ruby et al. 2010:318). *Kwaiiilk* negotiated with American Indian Agent Sidney Ford to relocate to Ford's land claim during the Puget Sound War, despite having no history of animosity, which eventually led to the establishment of a Chehalis Reservation. *Cowlitz* were interned at Cowlitz Landing, and *Taitnapums* were interned at Fort Vancouver with other bands (Irwin 2014:238). American colonizers and indigenous people alike lived in fear during the fall and winter of 1855/1856, despite a local commitment to remain neutral and peaceful (Irwin 2014:240). Many blockhouses were constructed in the region, which included Fort Borst at Centralia, Fort Henness at Mound Prairie, the Cowlitz Landing Fort near Toledo, and Fort Arkansas near present day Castle Rock.

Early American Settlements in Chehalis

Like most western Washington communities, Chehalis began as a community of land claimants in the mid- to late-1800s. A post office serving the local community was established on Saunders Prairie in 1858 (Crowell 2007:70). The community was bolstered by the construction of a railroad depot in Chehalis in 1873, businesses grew through the 1880s, and by the early 1890s the town had become a community hub (Ott 2008A). Arson fires destroyed many of the town buildings in 1892, but businesses were rebuilt north of the original town core.

Study Area Property Ownership and Land Use History, post-1850

In the 1850s, the United States sought to make treaties with Washington tribes and assign them to reservations in order to open land for American settlement (Richards 2005:343). American colonization and settlement of indigenous people's lands began illegally according to the United States' Nonintercourse Act (U.S.C. § 177). In December 1854, the United States entered into the Medicine Creek Treaty with the Nisqually, Puyallup, Steilacoom, Squawksin, S'Homamish, Stechass, T'Peeksin, Squi-aitl, and Sa-heh-wamish nations (Crowley 2003B). In February 1855 the Quinault, Queets, Satsop, Lower Chehalis, Upper Chehalis, Shoalwater Bay, Chinook, and Cowlitz met with Washington Territorial Governor Isaac Stevens at the Chehalis River Treaty Council (Lane and Lane 1999). Most of the tribal representatives were unsatisfied with the United States' proposed relocation to a poorly defined reservation on the Olympic Peninsula. In February 1855 only the Quinault representatives initially agreed to the Chehalis River Treaty terms, which were revised in the Quinault River Treaty and signed by the Quinault in July 1855. Although the Chehalis had not reached an agreement with the United States, their lands were rapidly claimed by American settlers in the 1850s to 1860s, causing the United States to establish the Confederated Tribes of the Chehalis Reservation in 1864 (Ott 2008A). The United

States intended for other local tribes to join the Upper and Lower Chehalis on the Chehalis Reservation, but many did not. Humptulips, Cowlitz, and Shoalwater Bay people refused to accept goods distributed by reservation officials, fearing it would be considered payment for unceded land (Hajda 1990:515; Ruby et al. 2010:130).

The 1856 General Land Office plat of the vicinity does not indicate any homestead improvements were observed in the area at the time of the GLO survey, although the Dillenbaugh, Foster, Metcalf, and Mills residences were located within a mile of the project, and an additional unspecified dwelling was located on the Newaukum River a little over a half mile southwest of the project (Figure 5; Bureau of Land Management 2022A). The project area was included in a 215,921-acre grant to the Northern Pacific Railroad in December 1894 (Bureau of Land Management 2022B). The 1916 USGS map of the Chehalis area records the Chehalis and Cowlitz Railroad had been constructed just northeast of the project area (Figure 6; USGS 1916). A residence was located just south of the project area. At the time of the 1954 USGS map, I-5 was under construction northeast of the project, although the symbology may be slightly exaggerated (Figure 7; USGS 1954). The residence from 1916 is no longer mapped in 1954. In 1985, no structures are recorded in the project area although Hamilton Road is mapped (Figure 8; USGS 1985). The project parcel is currently developed with an office constructed in 1998, a general-purpose building constructed in 1990, and ten buildings not described on the County parcel database (Lewis County 2022).

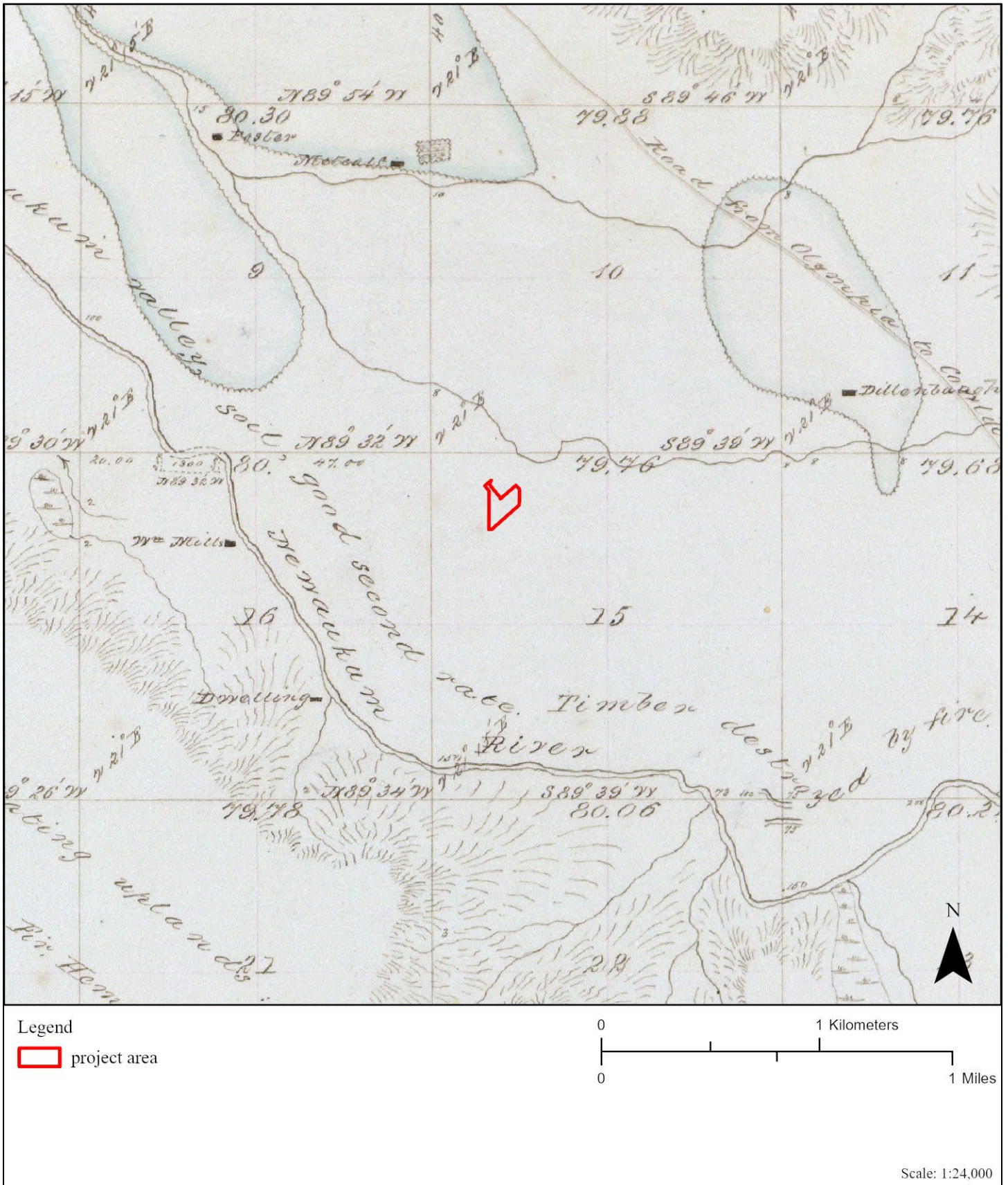


Figure 5. Portion of 1855 Township 13N Range 2W GLO Map, with project location indicated (Source: Bureau of Land Management 2022A).



Figure 6. Portion of 1916 1:125,000 Chehalis topographic map, with project location indicated (Source: USGS 1916).

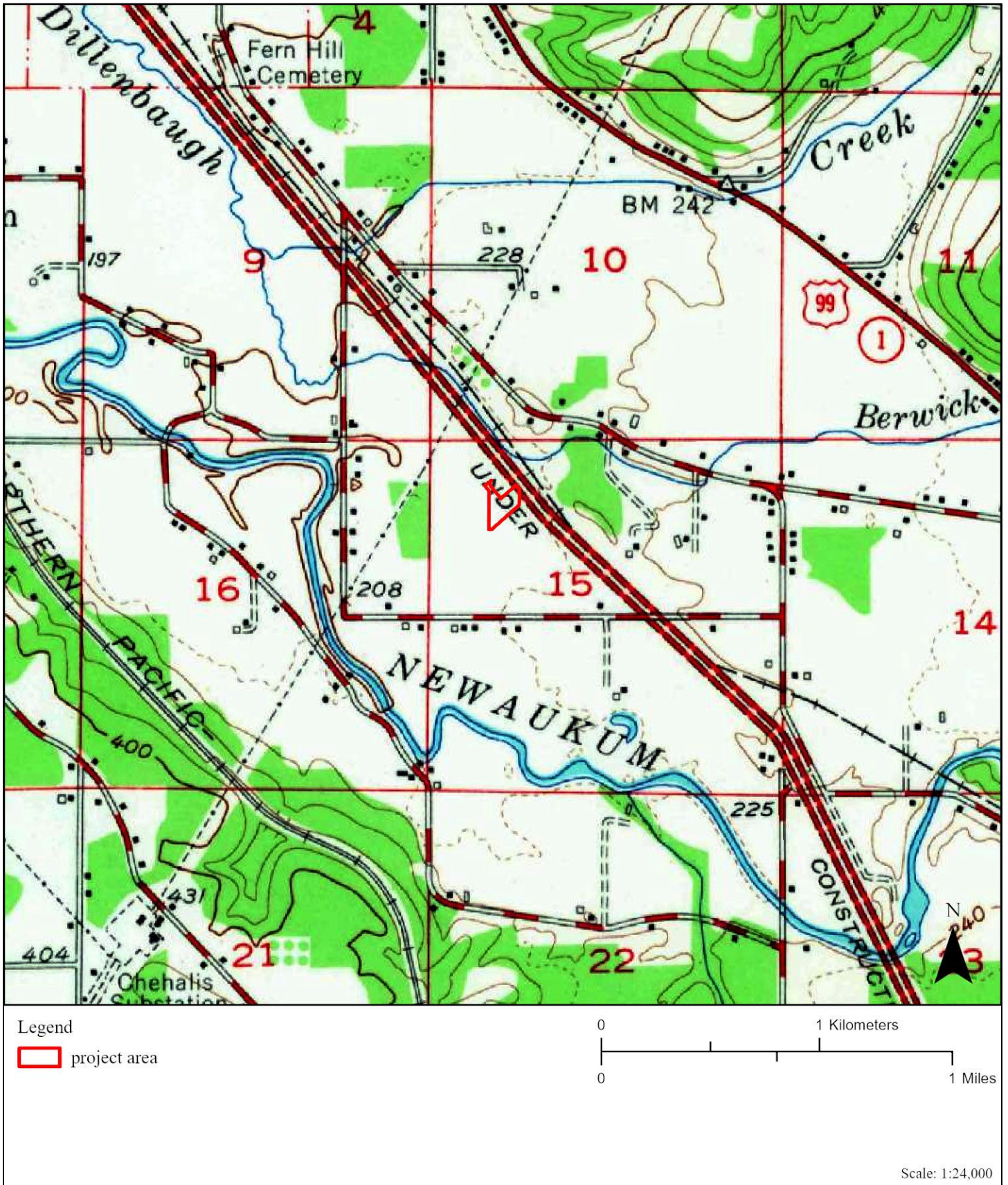


Figure 7. Portion of 1954 1:62,500 Centralia topographic map, with project location indicated (Source: USGS 1954).

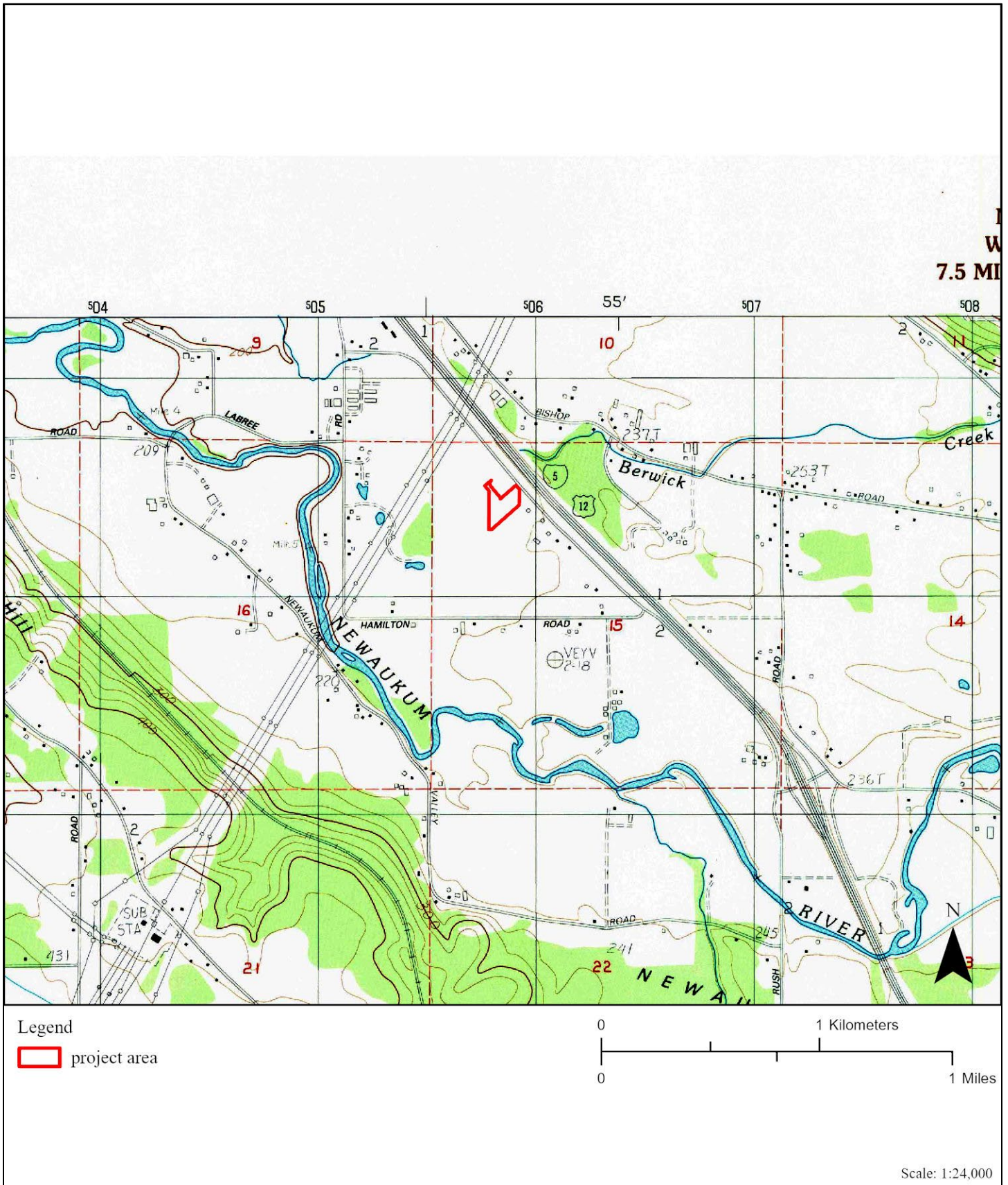


Figure 8. Portion of 1985 1:24,000 Napavine topographic map, with project location indicated (Source: USGS 1985).

DAHP LITERATURE REVIEW

The Washington Information System for Architectural and Archaeological Records Data (WISAARD) database (Washington State Department of Archaeology and Historic Preservation 2022) was reviewed to determine whether any archaeological sites or other historic properties had previously been recorded in the project vicinity.

Probability Model

The DAHP archaeological resources predictive model available in WISAARD indicates the project area has a very high risk for containing archaeological resources based on environmental factors, with survey highly advised.

Cultural Resource Surveys within 2 Kilometers of Project

According to the WISAARD database, 26 cultural resource surveys have been completed within two kilometers of the project area since 1996 (the earliest survey data available in WISAARD). No subsurface survey has been conducted previously in the vicinity of the project.

Historic Properties within 2 Kilometers of Project

A total of 74 historic-age properties have been recorded within 2 kilometers of the project area, within the WISAARD historic property inventory. No register-listed properties are recorded in the WISAARD database within 2 kilometers of the project.

Cemeteries within 2 Kilometers of Project

No cemeteries have been recorded within 2 kilometers of the project.

Archaeological Sites within 2 Kilometers of Project

Twenty archaeological sites have been recorded within 2 kilometers of the project area (Table 2). Nineteen of these sites are small precontact lithic scatters which have not been evaluated. Four of these sites contain historic refuse components. One of these sites consists of a thermally affected rock isolate. Closest to the project area, sites LE00673 and LE00674 are located about 375 meters northwest of the project near a relict oxbow of the Newaukum River.

Table 2. Archaeological sites recorded within two kilometers of project area.

Smithsonian #	Description
LE00521	Precontact lithic scatter
LE00523	Precontact lithic scatter
LE00583	Precontact lithic scatter
LE00585	Precontact lithic scatter
LE00590	Precontact lithic isolate
LE00610	Precontact circa 2000-150BP lithic scatter
LE00614	Precontact lithic isolate
LE00672	Precontact lithic scatter ca. 1950s historic refuse scatter
LE00673	Precontact lithic scatter
LE00674	Precontact lithic scatter
LE00675	Precontact lithic isolate

Smithsonian #	Description
LE00676	Precontact lithic isolate ca. 1950s historic refuse scatter
LE00893	Precontact lithic scatter
LE00944	Precontact lithic isolate
LE01001	Thermally affected rock isolate
LE01002	Precontact lithic isolate
LE01003	Precontact lithic scatter ca. 1850s historic refuse scatter
LE01004	Precontact lithic scatter
LE01005	Precontact lithic scatter ca. 1940s historic refuse isolate
LE01006	Precontact lithic scatter ca. 1940s historic refuse scatter

RESEARCH DESIGN

Information on the local environment and cultural setting were considered prior to fieldwork in order to determine the likelihood for identifying cultural resources in the project area. The DAHP archaeological predictive model indicates there is a very high risk for encountering precontact archaeological resources in the project area, and study of the local environment, history, and archaeology indicated the probability for encountering precontact archaeological resources is very high. Thorough pedestrian survey and sub-surface testing were planned to assess the potential impacts to cultural resources in the planned project area.

Expectations

The potential for precontact archaeological sites associated with *Kwaiilk* history should be considered high for the project area, due to the presence of local natural and archaeological resources and ethnographic sites. Although no distinct sites were identified at this location during a review of ethnographic and archaeological information, the project is located in an area that is known to have been well-traveled and well-used. Prairies, creeks, and streams are known to have been economically and culturally important places for indigenous people of this region, and mapped environmental features indicate the project area may have offered resources suitable for sustenance, tool-making, shelter, and other cultural needs.

The potential for encountering significant historic-age cultural resources in the project area should be considered low. The property was granted to the Northern Pacific Railroad in 1894, but no historic-period development of this site is known. Recent development of the project area appears to be limited to development for commercial use starting in the 1990s.

The potential for site preservation due to both environmental and cultural factors should be considered moderate for the project vicinity, due to the limited mechanical disturbance across portions of the project area.

Field Methodology Plan

The archaeological survey was designed to identify archaeological resources in the project area and assess whether proposed project plans might impact cultural resources. Pedestrian survey was planned across the entire project area. Given the high probability for encountering a significant archaeological site within the project area, shovel probes were planned at 30-meter (100 feet) intervals at high probability locations across the project area, utilizing a stratified systematic sampling strategy focused on high probability features. If archaeological materials were encountered during subsurface testing, additional shovel probes were to be excavated at 5-meter intervals in each cardinal direction, within the project area. Areas of steep slope or massive disturbance were to be deemed low probability for containing significant archaeological resources.

Shovel probes (SPs) were planned to extend approximately 100 centimeters below surface (cmbs; 3.3 feet), to an undisturbed Pleistocene glacial sediment, or until excavation was deemed unproductive, in order to assess the possible presence and depth of cultural deposits. Hand tools were to include shovels, digging bars, bucket augers, trowels, and pruners. Excavated materials were to be screened through 1/4" hardware mesh and returned to the SP. All cultural materials were to be returned SPs upon completion and recodation of the SP data, placed beneath the sod. SP locations, photographs, and data were to be recorded via ArcGIS Survey123 on a Samsung Pro Active tablet with a horizontal accuracy of approximately 5 meters.

SURVEY RESULTS

Field Methodology

Archaeological fieldwork was conducted between 22 September 2022 by Archaeological Field Technicians Tony Torres, BS, and Christa Torres, BA and monitored remotely throughout the day by Principal Investigator Bethany Mathews, MA, RPA via Survey123, text, and phone. Representatives from the Confederated Tribes of the Chehalis Reservation Historic Preservation Office visited the site on 21 September 2022, due to Antiquity Consulting not updating the Tribes on a schedule change due to weather. Pedestrian and shovel probe survey was completed systematically across the project area at 30-meter intervals (Figure 9). Shovel probes were terminated deep in the B-horizon.

Survey Findings

The survey area is located on a parcel that has been developed for commercial use, and the north-eastern half of the project is currently developed with impervious surfaces that were not surveyable via manual methods. Shovel probes were placed systematically, at 30-meter intervals as planned in the southwestern portion of the project area. A total of 12 shovel probes were excavated in the project area, to an average depth of 79 centimeters below surface. Shovel probe descriptions are attached to this report in Appendix A. All shovel probes were terminated deep in the B-horizon as recorded in the field, however the gradual transition to the rocky C-horizon might not have been observed in the bright sunlight. Modern refuse materials, consisting of milled wood, concrete blocks, rusted metal, wire, and colorless bottle glass, were observed in shovel probes 3, 5, and 9, between 10 and 60 cmbs. Although square nails were observed on the site, they were observed with other apparently modern materials and are not considered archaeological. No precontact or historic materials were observed during shovel probing.

Analysis

The project area was considered very high risk for encountering archaeological resources due to the local historic and archaeological context, and the DAHP predictive model. Thorough pedestrian and subsurface testing were completed systematically across the project area. No precontact or historic materials were observed during the pedestrian and subsurface testing. A transition in the texture of the B-horizon occurred across much of the subsurface tested area between 35-60 cmbs, indicating some filling has occurred on the property.

CONCLUSIONS AND RECOMMENDATIONS

Background review suggested the proposed project is located in an area of high risk for encountering archaeological resources. The project area was thoroughly surveyed to assess potential project impacts to cultural resources, and no cultural resources were identified. Antiquity Consulting recommends project compliance with the attached inadvertent discovery plan for all ground disturbing work.

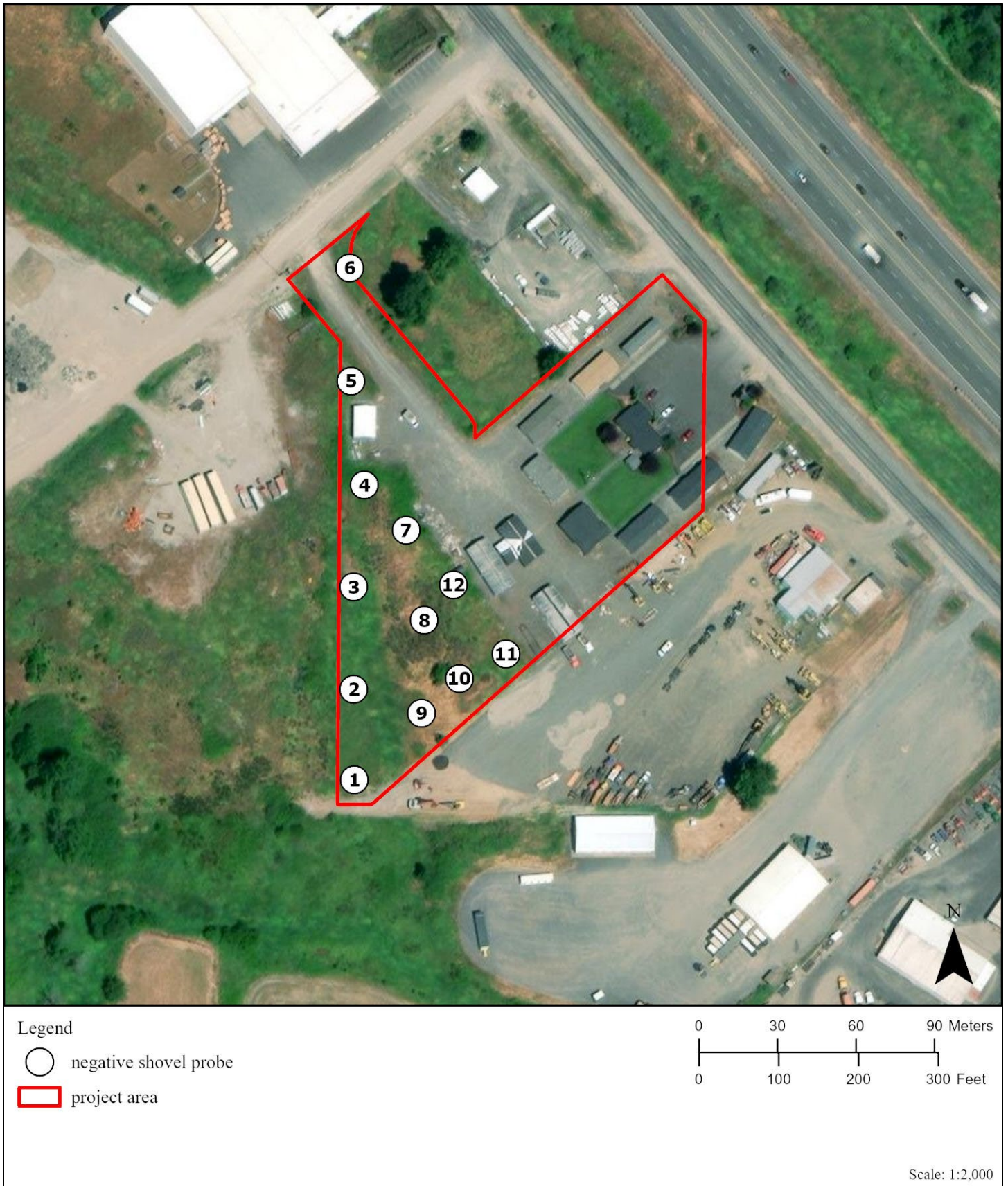


Figure 9. Shovel probe locations illustrated on aerial image.

INADVERTENT DISCOVERY PROTOCOL

Archaeological Materials Inadvertent Discovery Protocol

A cultural resource is an object, site, building, or structure that may be eligible for local, state, or national registers. A cultural resource discovery could be prehistoric or historic and is typically more than 50 years old. When in doubt, assume the material is a cultural resource. If any employee, contractor or subcontractor believes that they have uncovered a cultural resource at any point in the project, all work must stop immediately in compliance with RCW 27.53. Leave the surrounding area untouched and provide a demarcation adequate to provide the total security, protection, and integrity of the discovery. Notify on-site project management and personnel of the work stoppage to ensure security of the discovery. Vehicles, equipment, and unauthorized personnel will not be permitted to traverse the discovery site. Work in the immediate area will not resume until treatment of the discovery has been completed.

Contact

Department of Archaeology and Historic Preservation

Stephanie Jolivette

Local Government Archaeologist

360.628.2755 cell

Human Skeletal Remains Inadvertent Discovery Protocol

In accordance with RCWs 68.50.645, 27.44.055, and 68.60.055, if ground disturbing activities encounter human skeletal remains during 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 county medical examiner/coroner and local law enforcement in the most expeditious manner possible. The remains will not be touched, moved, or further disturbed. The county medical examiner/coroner will assume jurisdiction over the human skeletal remains and make a determination of whether those remains are forensic or non-forensic.

If the county medical examiner/coroner determines the remains are non-forensic, then they will report that finding to the Department of Archaeology and Historic Preservation (DAHP) who will then take jurisdiction over the remains. The DAHP will notify any appropriate cemeteries and all affected tribes of the find. The State Physical Anthropologist 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."

Contacts

Lewis County Coroner

Warren McLeod, Coroner

Lewis County Coroner's Office

360.740.1376

State Physical Anthropologist

Guy Tasa

Department of Archaeology and Historic Preservation

360.790.1633 cell

Lewis County Sherriff's Office

360.748.9286

Assistant State Anthropologist

Alex Garcia-Putnam

Department of Archaeology and Historic Preservation

360.890.2633 cell

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APPENDIX A: SHOVEL PROBE LOG

Shovel Probe #1



Date & Time
September 22, 2022 9:41 AM

Probe Diameter
40cm

Maximum Depth
100cmbs

Reason for Termination
Manual tool limits

Archaeologist
Tony Torres, BS, Christa Torres, BA

Tribal Archaeologist

Cultural Materials Present?
None

Stratum I	Soil Horizon A: SOIL (zone of leaching with high organic content)	0-5 cmbs
Color Grayish brown	Sediment Compaction slightly compact	Sediment Texture Silt
Gravel % 0-5%	Gravel Angularity Sub-rounded	Gravel Size Pebbles <6cm
Stratum II	Soil Horizon B: SUBSOIL (zone of accumulation)	5-50 cmbs
Color Yellowish brown	Sediment Compaction very compact	Sediment Texture Silt
Gravel % 0-5%	Gravel Angularity Sub-rounded	Gravel Size Pebbles <6cm
Stratum III	Soil Horizon B: SUBSOIL (zone of accumulation)	50-100cmbs
Color Dark grayish brown	Sediment Compaction very compact	Sediment Texture Silt
Gravel % 0-5%	Gravel Angularity Sub-rounded	Gravel Size Pebbles <6cm

Notes
Probe location southwest corner. Disturbance includes 0.5m high berm along edge of APE. Top soil scraped off. Mottling Strat 1 brown with some dark gray. Auger 50-100.

Shovel Probe #2



Date & Time
September 22, 2022 10:34 AM

Probe Diameter
40cm

Maximum Depth
100cmbs

Reason for Termination
Manual tool limits

Archaeologist
Tony Torres, BS, Christa Torres, BA

Tribal Archaeologist

Cultural Materials Present?
None

Stratum I	Soil Horizon A: SOIL (zone of leaching with high organic content)	0-5 cmbs
Color Grayish brown	Sediment Compaction slightly compact	Sediment Texture Silt
Gravel % 0-5%	Gravel Angularity Sub-angular, Sub-rounded	Gravel Size Pebbles <6cm
Stratum II	Soil Horizon B: SUBSOIL (zone of accumulation)	5-50 cmbs
Color Yellowish brown	Sediment Compaction very compact	Sediment Texture Silt
Gravel % 0-5%	Gravel Angularity Sub-rounded	Gravel Size Pebbles <6cm
Stratum III	Soil Horizon B: SUBSOIL (zone of accumulation)	50-100cmbs
Color Dark grayish brown	Sediment Compaction very compact	Sediment Texture Silt
Gravel % 0-5%	Gravel Angularity Sub-rounded	Gravel Size Pebbles <6cm

Notes
Shallow horizon A. Top soil scraped off. Mottling Strat 1 brown with some dark gray. Auger 50-100.

Shovel Probe #3



Date & Time
September 22, 2022 11:19 AM

Probe Diameter
40cm

Maximum Depth
60cmbs

Reason for Termination
Dense concentration of modern debris

Archaeologist
Tony Torres, BS, Christa Torres, BA

Tribal Archaeologist

Cultural Materials Present?
Modern materials, 0-60
Modern construction debris (milled wood, concrete, rusted metal, and wire)



Stratum I	Soil Horizon A: SOIL (zone of leaching with high organic content)	0-20 cmbs
Color Grayish brown	Sediment Compaction slightly loose	Sediment Texture Silt
Gravel % 15-25%	Gravel Angularity Very angular, Angular, Sub-angular	Gravel Size Pebbles <6cm, Cobbles 6-25cm
Stratum II	Soil Horizon B: SUBSOIL (zone of accumulation)	20-60 cmbs
Color Brown	Sediment Compaction very compact	Sediment Texture Silt
Gravel % 0-5%	Gravel Angularity Sub-rounded	Gravel Size Pebbles <6cm
Notes		

Shovel Probe #4



Date & Time
September 22, 2022 11:53 AM

Probe Diameter
40cm

Maximum Depth
50cmbs

Reason for Termination
Gravel content/size (>40% volume)

Archaeologist
Tony Torres, BS, Christa Torres, BA
Tribal Archaeologist

Cultural Materials Present?
None

Stratum I

Soil Horizon A: SOIL (zone of leaching with high organic content)

0-20 cmbs

Color
Grayish brown

Sediment Compaction
slightly compact

Sediment Texture
Silt

Gravel %
>40%

Gravel Angularity
Angular, Sub-angular, Sub-rounded

Gravel Size
Pebbles <6cm, Cobbles 6-25cm, Boulders >25cm

Stratum II

Soil Horizon B: SUBSOIL (zone of accumulation)

20-50 cmbs

Color
Brown

Sediment Compaction
slightly compact

Sediment Texture
Silt

Gravel %
>40%

Gravel Angularity
Angular, Sub-angular, Sub-rounded

Gravel Size
Pebbles <6cm, Cobbles 6-25cm, Boulders >25cm

Notes

Terminate due to rocky obstruction. Angular boulders 0-50.

Shovel Probe #5



Date & Time

September 22, 2022 12:22 PM

Probe Diameter

40cm

Maximum Depth

85cmbs

Reason for Termination

Gravel content/size (>40% volume)

Archaeologist

Tony Torres, BS, Christa Torres, BA

Tribal Archaeologist

Cultural Materials Present?

Modern materials, 0-55

Metal wire. 0-30, square nail 30-55.



Stratum I

Soil Horizon A: SOIL (zone of leaching with high organic content)

0-30 cmbs

Color

Grayish brown

Sediment Compaction

slightly compact

Sediment Texture

Silt

Gravel %

15-25%

Gravel Angularity

Sub-angular, Sub-rounded

Gravel Size

Pebbles <6cm, Cobbles 6-25cm

Stratum II

Soil Horizon B: SUBSOIL (zone of accumulation)

30-55 cmbs

Color

Brown

Sediment Compaction

very compact

Sediment Texture

Silt

Gravel %

15-25%

Gravel Angularity

Sub-rounded

Gravel Size

Pebbles <6cm

Stratum III

Soil Horizon B: SUBSOIL (zone of accumulation)

55-85cmbs

Color

Yellowish brown

Sediment Compaction

very compact

Sediment Texture

Gravel %

0-5%

Gravel Angularity

Sub-rounded

Gravel Size

Pebbles <6cm

Notes

Distinct strat change at 30, STRAT II includes 1 square nail. Mottled brown with gray. STRAT III distinct change at 55. Auger 55-85. Mottled yellowish brown with orange. Rocky obstruction at 85.

Shovel Probe #6



Date & Time
September 22, 2022 12:55 PM

Probe Diameter
40cm

Maximum Depth
100cmbs

Reason for Termination
Manual tool limits

Archaeologist
Tony Torres, BS, Christa Torres, BA
Tribal Archaeologist

Cultural Materials Present?
None

Stratum I	Soil Horizon A: SOIL (zone of leaching with high organic content)	0-35 cmbs
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Color Grayish brown	Sediment Compaction slightly loose	Sediment Texture Silt
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Gravel % 15-25%	Gravel Angularity Sub-angular, Sub-rounded	Gravel Size Pebbles <6cm, Cobbles 6-25cm
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Stratum II	Soil Horizon B: SUBSOIL (zone of accumulation)	35-60 cmbs
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Color Brown	Sediment Compaction very compact	Sediment Texture Silt
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Gravel % 5-15%	Gravel Angularity Sub-rounded	Gravel Size Pebbles <6cm
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Stratum III	Soil Horizon B: SUBSOIL (zone of accumulation)	60-100cmbs
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Color Yellowish brown	Sediment Compaction very compact	Sediment Texture Silt
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Gravel % 0-5%	Gravel Angularity Sub-rounded	Gravel Size Pebbles <6cm
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Notes
Distinct strat change at 35, STRAT II Mottled brown with gray. STRAT III distinct change at 60. Auger 60-100. Mottled yellowish brown with orange.

Shovel Probe #7



Date & Time September 22, 2022 1:47 PM Probe Diameter 40cm Maximum Depth 90cmbs Reason for Termination Gravel content/size (>40% volume)	Archaeologist Tony Torres, BS, Christa Torres, BA Tribal Archaeologist	Cultural Materials Present? None
Stratum I	Soil Horizon A: SOIL (zone of leaching with high organic content)	0-10 cmbs
Color Grayish brown	Sediment Compaction very compact	Sediment Texture Silt
Gravel % 15-25%	Gravel Angularity Angular, Sub-angular, Sub-rounded	Gravel Size Pebbles <6cm, Cobbles 6-25cm
Stratum II	Soil Horizon B: SUBSOIL (zone of accumulation)	10-35 cmbs
Color Brown	Sediment Compaction very compact	Sediment Texture Silt
Gravel % 15-25%	Gravel Angularity Sub-angular, Sub-rounded	Gravel Size Pebbles <6cm, Cobbles 6-25cm
Stratum III	Soil Horizon B: SUBSOIL (zone of accumulation)	35-90cmbs
Color Yellowish brown	Sediment Compaction very compact	Sediment Texture Silt
Gravel % 5-15%	Gravel Angularity Sub-rounded	Gravel Size Pebbles <6cm, Cobbles 6-25cm
Notes		
Distinct strat change at 35 STRAT II Mottled brown with gray. STRAT III distinct change at 55. Mottled yellowish brown with orange. AUGER 55-90 terminate at rocky obstruction.		

Shovel Probe #8



Date & Time September 22, 2022 2:17 PM Probe Diameter 40cm Maximum Depth 40cmbs Reason for Termination Gravel content/size (>40% volume)	Archaeologist Tony Torres, BS, Christa Torres, BA Tribal Archaeologist	Cultural Materials Present? None
Stratum I	Soil Horizon A: SOIL (zone of leaching with high organic content)	0-15 cmbs
Color Grayish brown	Sediment Compaction very compact	Sediment Texture Silt
Gravel % 25-40%	Gravel Angularity Angular, Sub-angular, Sub-rounded	Gravel Size Pebbles <6cm, Cobbles 6-25cm
Stratum II	Soil Horizon B: SUBSOIL (zone of accumulation)	15-40 cmbs
Color Brown	Sediment Compaction very compact	Sediment Texture Silt
Gravel % >40%	Gravel Angularity Sub-angular, Sub-rounded	Gravel Size Pebbles <6cm, Cobbles 6-25cm
Notes High rock content. Terminate at 40. No auger.		

Shovel Probe #9



Date & Time

September 22, 2022 2:42 PM

Probe Diameter

40cm

Maximum Depth

70cmbs

Reason for Termination

Gravel content/size (>40% volume)

Archaeologist

Tony Torres, BS, Christa Torres, BA

Tribal Archaeologist

Cultural Materials Present?

Modern materials, 10-30
Colorless glass bottle fragment, 2 square nails



Stratum I

Soil Horizon A: SOIL (zone of leaching with high organic content)

0-40 cmbs

Color

Grayish brown

Sediment Compaction

slightly compact

Sediment Texture

Silt

Gravel %

15-25%

Gravel Angularity

Sub-angular, Sub-rounded

Gravel Size

Pebbles <6cm, Cobbles 6-25cm

Stratum II

Soil Horizon B: SUBSOIL (zone of accumulation)

40-60 cmbs

Color

Brown

Sediment Compaction

very compact

Sediment Texture

Silt

Gravel %

>40%

Gravel Angularity

Sub-rounded

Gravel Size

Pebbles <6cm, Cobbles 6-25cm

Stratum III

Soil Horizon B: SUBSOIL (zone of accumulation)

60-70cmbs

Color

Yellowish brown

Sediment Compaction

very compact

Sediment Texture

Silt

Gravel %

25-40%

Gravel Angularity

Sub-rounded

Gravel Size

Pebbles <6cm, Cobbles 6-25cm

Notes

Distinct strat change at 40. Increase large cobbles STRAT III distinct change at 60. No auger, terminate at rocky obstruction.

Shovel Probe #10



Date & Time September 22, 2022 3:13 PM Probe Diameter 40cm Maximum Depth 100cmbs Reason for Termination Gravel content/size (>40% volume)	Archaeologist Tony Torres, BS, Christa Torres, BA Tribal Archaeologist	Cultural Materials Present? None
Stratum I	Soil Horizon A: SOIL (zone of leaching with high organic content)	0-5 cmbs
Color Grayish brown	Sediment Compaction very compact	Sediment Texture Silt
Gravel % 5-15%	Gravel Angularity Sub-angular, Sub-rounded	Gravel Size Pebbles <6cm
Stratum II	Soil Horizon B: SUBSOIL (zone of accumulation)	5-40 cmbs
Color Yellowish brown	Sediment Compaction very compact	Sediment Texture Silt
Gravel % 0-5%	Gravel Angularity Sub-rounded	Gravel Size Pebbles <6cm, Cobbles 6-25cm
Stratum III	Soil Horizon B: SUBSOIL (zone of accumulation)	40-70cmbs
Color Yellowish brown	Sediment Compaction very compact	Sediment Texture Silt
Gravel % 25-40%	Gravel Angularity Sub-rounded	Gravel Size Pebbles <6cm, Cobbles 6-25cm
Notes		
Probe located near crab apple tree and large backdirt pile., 1m high near south edge of APE. Top soil appears to be scraped off. Cobble increase at 40. Auger 60-70. Terminate at rocky obstruction.		

Shovel Probe #11



Date & Time September 22, 2022 3:43 PM Probe Diameter 40cm Maximum Depth 70cmbs Reason for Termination Gravel content/size (>40% volume)	Archaeologist Tony Torres, BS, Christa Torres, BA Tribal Archaeologist	Cultural Materials Present? None
Stratum I	Soil Horizon A: SOIL (zone of leaching with high organic content)	0-10 cmbs
Color Grayish brown	Sediment Compaction slightly compact	Sediment Texture Silt
Gravel % 0-5%	Gravel Angularity Sub-angular, Sub-rounded	Gravel Size Pebbles <6cm
Stratum II	Soil Horizon B: SUBSOIL (zone of accumulation)	10-60 cmbs
Color Brown	Sediment Compaction slightly compact	Sediment Texture Silt
Gravel % 0-5%	Gravel Angularity Sub-rounded	Gravel Size Pebbles <6cm
Stratum III	Soil Horizon B: SUBSOIL (zone of accumulation)	60-70cmbs
Color Yellowish brown	Sediment Compaction slightly compact	Sediment Texture Silt
Gravel % 25-40%	Gravel Angularity Sub-rounded	Gravel Size Pebbles <6cm, Cobbles 6-25cm
Notes		
Moist soil starting at 50. Very few gravels, no cobbles until 70. Auger 60- 70. Terminate at rocky obstruction.		

Shovel Probe #12



<p>Date & Time September 22, 2022 4:17 PM</p> <p>Probe Diameter 40cm</p> <p>Maximum Depth 80cmbs</p> <p>Reason for Termination Water inundation for >10cm; unproductive excavation</p>	<p>Archaeologist Tony Torres, BS, Christa Torres, BA</p> <p>Tribal Archaeologist</p>	<p>Cultural Materials Present? None</p>
<p>Stratum I</p>	<p>Soil Horizon A: SOIL (zone of leaching with high organic content)</p>	<p>0-10 cmbs</p>
<p>Color Grayish brown</p>	<p>Sediment Compaction slightly compact</p>	<p>Sediment Texture Silt</p>
<p>Gravel % 0-5%</p>	<p>Gravel Angularity Sub-rounded</p>	<p>Gravel Size Pebbles <6cm</p>
<p>Stratum II</p>	<p>Soil Horizon B: SUBSOIL (zone of accumulation)</p>	<p>10-50 cmbs</p>
<p>Color Yellowish brown</p>	<p>Sediment Compaction slightly compact</p>	<p>Sediment Texture Silt</p>
<p>Gravel % 0-5%</p>	<p>Gravel Angularity Sub-rounded</p>	<p>Gravel Size Pebbles <6cm</p>
<p>Stratum III</p>	<p>Soil Horizon B: SUBSOIL (zone of accumulation)</p>	<p>50-80cmbs</p>
<p>Color Brown</p>	<p>Sediment Compaction slightly compact</p>	<p>Sediment Texture Silt</p>
<p>Gravel % 0-5%</p>	<p>Gravel Angularity Sub-rounded</p>	<p>Gravel Size Pebbles <6cm</p>
<p>Notes Surface pooling of water, possible leaky pump house structure east of probe. Offset to avoid water 5m. Moist soil starting at 50. STRAT III Mottled brown with gray. Very few gravels, no cobbles. Auger 60-80, water 75.</p>		