

**CULTURAL RESOURCES TECHNICAL REPORT FOR THE
47° NORTH PROJECT MASTER SITE PLAN FINAL SEIS,
CLE ELUM, KITTITAS COUNTY, WASHINGTON**

BY

NICOLE CLENNON, PROJECT ARCHAEOLOGIST
MARGARET BERGER, PRINCIPAL INVESTIGATOR

PREPARED FOR:
EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC., PBC
2200 SIXTH AVENUE, SUITE 707
SEATTLE, WA 98121

CULTURAL RESOURCE CONSULTANTS, LLC
PO BOX 4159
SEATTLE, WA 98194

CRC PROJECT #1910A

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Cultural Resource Consultants

CULTURAL RESOURCES REPORT COVER SHEET

Author: Nicole Clennon and Margaret Berger

Title of Report: Cultural Resources Technical Report for the 47° North Project Master Site Plan Final SEIS, Cle Elum, Kittitas County, Washington

Date of Report: September 16, 2020; revised January 20, 2021

County(ies): Kittitas Section: 21, 27, 28, 29, 30, 31, 32
Township: 20 N Range: 15 E

Quad: Cle Elum, WA; Ronald, WA Acres: approximately 824

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 #:

45KT1019

45KT1227

45KT1368

45KT1376

45KT1484

45KT2092

45KT2096

45KT2098

45KT2099

45KT2139

45KT2140

45KT2141

45KT2146

45KT3331

45KT3332

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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 Resources Technical Report for the
47° North Project Master Site Plan Final SEIS,
Cle Elum, Kittitas County, Washington**

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Management Summary

This report supports the Final Supplemental Environmental Impact Statement (FSEIS) for the 47° North Project in City of Cle Elum, Kittitas County, Washington. EA Engineering, Science, and Technology, Inc., requested that Cultural Resource Consultants, LLC (CRC) prepare this cultural resources analysis to evaluate potential impacts to cultural resources from two SEIS alternatives: SEIS Alternative 6 (Proposed 47° North Master Site Plan Amendment), and SEIS Alternative 5 the No Action Alternative (Approved Bullfrog Flats Master Site Plan). Methodology and regulations, affected environment, and impacts of the SEIS alternatives have been analyzed and compared to those under FEIS Alternative 5 (Original Bullfrog Flats Master Site Plan, as outlined in the 2002 Cle Elum UGA FEIS).

In 2002, archaeologists identified 23 cultural resources within the approximately 1,000-acre Bullfrog Flats project site. At that time, impacts specific to each cultural resource site individually were not identified. However, a number of mitigation measurements were recommended if the project were to proceed. Background research and field investigations conducted by Cultural Resource Consultants, LLC (CRC) resulted in the identification of 15 previously recorded precontact or historic-era archaeological sites within the 824-acre portion of the Bullfrog Flats site currently proposed for development and adjacent 25-acre property contemplated for future development. Seven of these sites are located in or near proposed ground disturbances. One of these sites was previously determined eligible for the National Register, however no evidence of the site remains. Field investigations did not identify any as yet unrecorded historic-era or precontact cultural resources within the project site and adjacent property, nor was there any evidence found to suggest a high potential for as-yet unrecorded archaeological deposits to be contained within areas proposed for development. No significant impacts on cultural resources have been identified for either SEIS Alternative 5 or SEIS Alternative 6. In the event that the project encounters as-yet unknown cultural resources, potential mitigation measures are discussed and an inadvertent discovery protocol is provided.

1.0 Administrative Data

1.1 Overview

Report Title: Cultural Resources Technical Report for the 47° North Project Master Site Plan Final SEIS, Kittitas County, Washington

Author (s): Nicole Clennon and Margaret Berger

Report Date: September 16, 2020; revised January 20, 2021

Location: This project is located in the western portion of the City of Cle Elum.

Legal Description: The legal description for the project is in Section 21, 27, 28, 29, 30, 31, and 32 Township 20 North, Range 15 East, W.M.

USGS 7.5' Topographic Map(s): Cle Elum, WA; Ronald, WA; Wenatchee, WA (Figure 1).

Total Area Involved: approximately 849 acres (824-acre 47° North site + adjacent 25-acre property).

Regulatory Nexus: State Environmental Policy Act (SEPA)

1.2 Project Description

Sun Communities plans to create a mixed use development including residential (single family, multi-family, and RV resort), commercial, and recreational uses. The approximately 824-acre project site is located outside in the western portion of the City of Cle Elum, south of Bullfrog Road and north of Interstate 90. In 2002, the Cle Elum UGA EIS was issued. Subsequently, the Bullfrog Flats Master Site Plan was approved, and Subarea Plan, Zoning, and Development Agreement adopted; the 1,100-acre Bullfrog Flats site was subsequently annexed to the City of Cle Elum. Sun Communities is proposing revisions to the Bullfrog Flats Master Site Plan on an 824-acre portion of the site now called 47° North; and, commercial development is contemplated by Suncadia in the future on an adjacent 25-acre property. Some of these revisions constitute Major Modifications to the approved Master Plan. As a result, the City of Cle Elum has determined that a SEIS is required, supplementing the 2002 Cle Elum UGA EIS. This report compares the methodology and regulations utilized, affected environment, and potential impacts of the 2002 UGA Cle Elum FEIS Alternative 5 (Original Bullfrog Flats Master Site Plan) and the 2020 SEIS project alternatives. The SEIS alternatives under analysis in this assessment are SEIS Alternative 6 – Proposed 47° North Master Site Plan Amendment; and the SEIS Alternative 5 (No Action Alternative) – Approved Bullfrog Flats Master Site Plan.

For purposes of this report, the area of interest (hereafter, “the project location”) for cultural resources is considered to contain the locations of all project elements as described above and as shown in Figures 1 and 2.

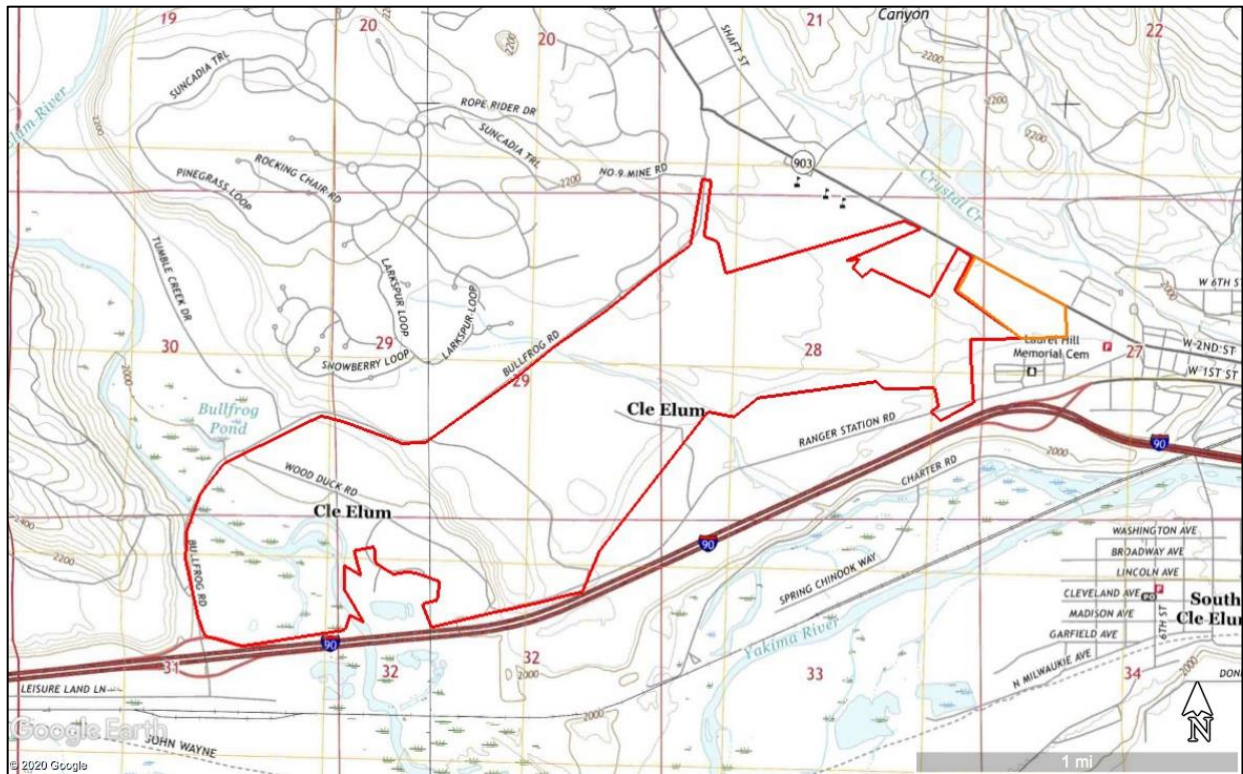


Figure 1. Portion of USGS 7.5' topographic map annotated with the project location in red and potential future commercial development in orange.



Figure 2. Satellite imagery annotated with the project location in red, potential future commercial development in orange, and areas anticipated to be disturbed based on 2019 project conceptual design in blue.

SEIS Alternative 6 – Proposed 47° North Master Site Plan Amendment

Alternative 6 represents the Applicant's proposed revisions to the approved Master Plan, and includes phased development of a mix of residential, RV resort, and open space/recreational facilities on the 824-ac. project site (Figure 3). A 25-ac. property adjacent to the site could be developed in commercial uses in the future. This alternative would develop 353 acres for residential, recreation, commercial, utility, and other uses, and would leave 471 acres as open space.

A 25-ac. property located off-site, adjacent to the site's eastern boundary could be developed in commercial uses at some point in the future by the property owner, Suncadia. This potential off-site development may involve a total of 150,000 sq. ft. of commercial uses, including: grocery store, retail, restaurant, and medical office uses, could be developed on approximately 18 ac. of the property. No development is proposed on the property at this time. However, hypothetical development of the property is included here in order to understand the potential impacts of this development, including the cumulative impacts of this development together with development of 47° N. Should this hypothetical development be pursued in the future, a cultural resources survey would be conducted on the 25-ac. property.

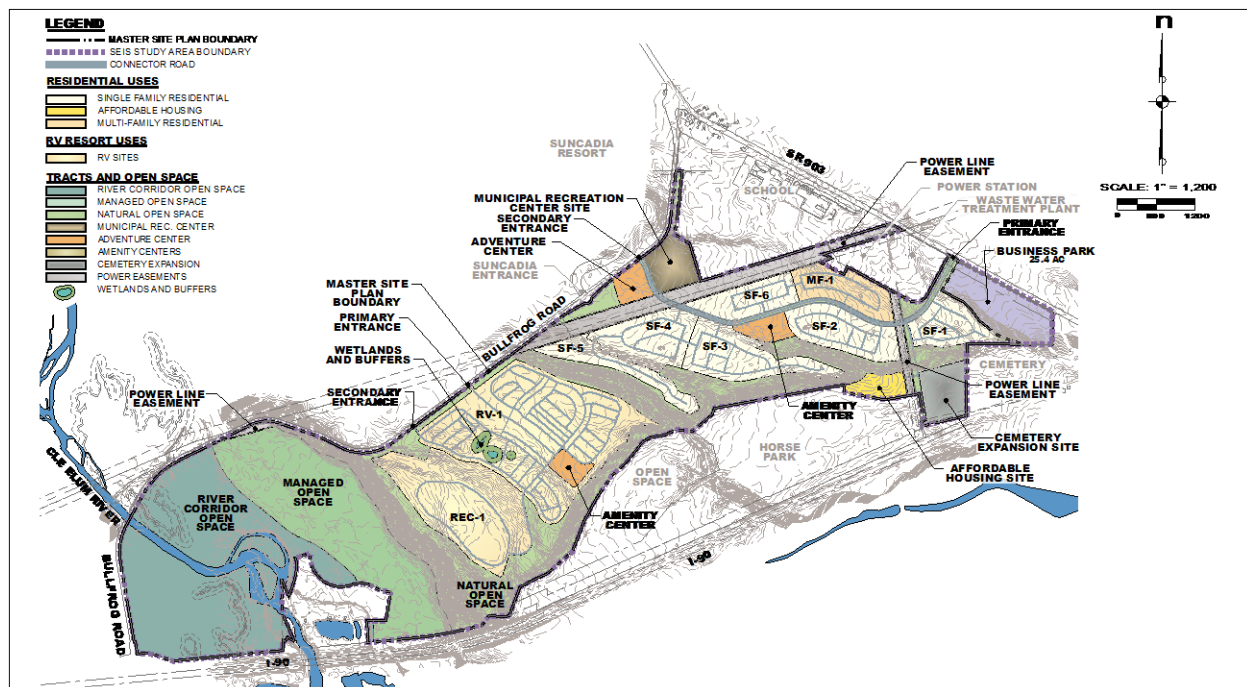


Figure 3. Figure illustrating SEIS Alternative 6 – Proposed 47° North Master Site Plan Amendment, prepared by ESM Consulting Engineers.

SEIS Alternative 5 (No Action Alternative) – Approved Bullfrog Flats Master Site Plan

The SEIS No Action Alternative assumes that development of FEIS Alternative 5 from the 2002 UGA FEIS, which became the approved Master Plan, would occur under current conditions (Figure 4). SEIS Alternative 5 would include development of a mix of residential and employment uses, open space/recreational facilities, and future development areas on a 1,100-ac. site. This alternative would develop a total of 577 acres for residential, recreation, commercial,

utility, and other uses. Development on 222 acres has occurred since 2002. This includes the development of the Horsepark in the Reserve area, water treatment plant, and school expansion, resulting in 355 acres of remaining development. In this alternative, 524 acres would remain as open space.

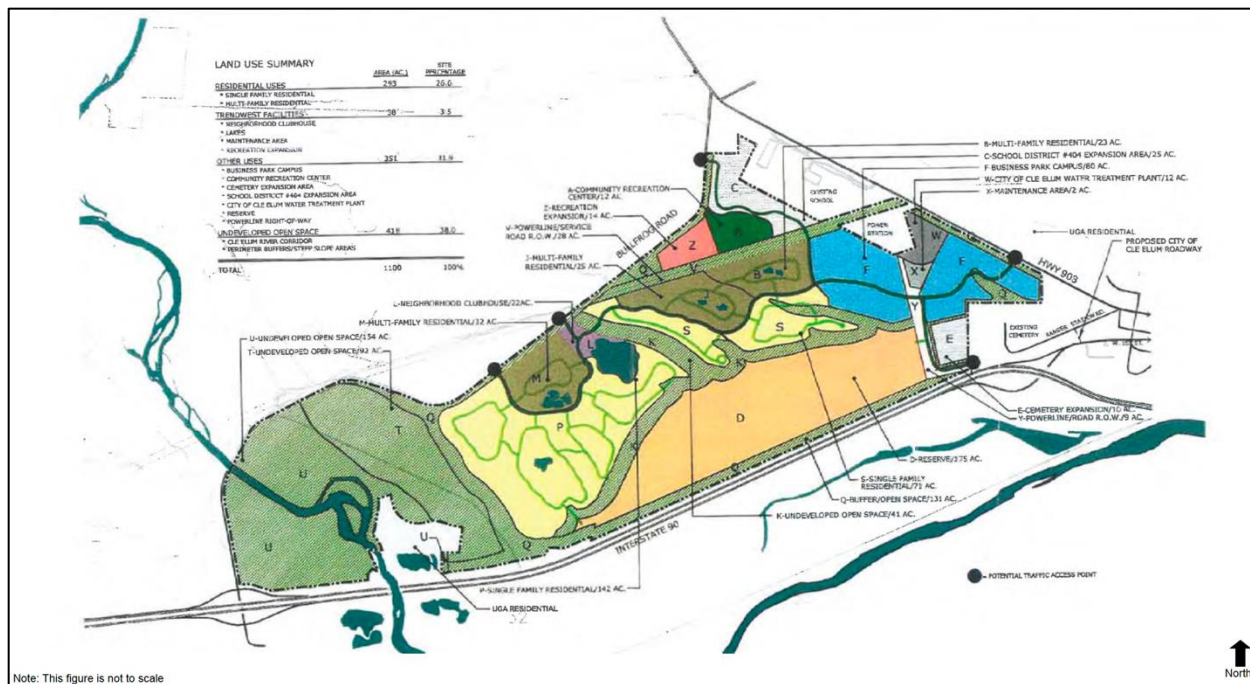


Figure 4. Figure illustrating SEIS Alternative 5 (No Action Alternative) – Approved Bullfrog Flats Master Site Plan (City of Cle Elum 2002).

2.0 Methodology and Regulations

2.1 2002 Cle Elum EIS Methodology and Regulations

Methodology and regulations for the 2002 Cle Elum EIS report (Cle Elum 2002) were described previously in the Draft EIS report (Cle Elum 2001). The methodology included pre-field and field elements. Archaeologists conducted pre-field research which included a search for previously recorded archaeological sites and survey reports on file at the Washington State Office of Archaeology and Historic Preservation (OAHP) (DAHP). Historical documents at federal and state archival centers were reviewed. In addition, county and city personnel knowledgeable about land use within the general Cle Elum area were interviewed (Cle Elum 2001).

Methods used to conduct the archaeological survey consisted of a literature review of historical documents, examination of historical photographs, a pedestrian survey, and documentation of cultural resources. Additionally, local residents and members of the Yakama Nation were interviewed to assist in identification of cultural resources within the Cle Elum UGA (Cle Elum 2001:3.13-1). According to Griffin and Churchill (1998b:17), YIN Cultural Resource Program manager Johnson Meninick, and members of his staff, visited the MountainStar resort property on several occasions and shared information on the past use of project lands.

The cultural resources survey was conducted in compliance with Section 106 of the National Historic Preservation Act, the Advisory Council on Historic Preservation Bulletin 38, the American Indian Religious Freedom Act of 1978 (PL 101-601), and the Native American Graves Protection and Repatriation Act of 1990 (PL 101-601).

2.2 2020 SEIS Methodology and Regulations

In 2019, an assessment was developed for the SEIS as a component of preconstruction environmental review with the goal of preventing cultural resources from being disturbed by the proposed project by identifying archaeological or historic sites within the project location. CRC's work was intended, in part, to assist in addressing state regulations pertaining to the identification and protection of cultural resources (e.g., RCW 27.44, RCW 27.53). The Archaeological Sites and Resources Act (RCW 27.53) prohibits knowingly disturbing archaeological sites without a permit from the Department of Archaeology and Historic Preservation (DAHP), the Indian Graves and Records Act (RCW 27.44) prohibits knowingly disturbing Native American or historic graves. This project is subject to the State Environmental Policy Act (SEPA), which requires that impacts to cultural resources be considered during the public environmental review process. Under SEPA, the DAHP is the sole agency with technical expertise in regard to cultural resources and provides formal opinions to local governments and other state agencies on a site's significance and the impact of proposed projects upon such sites.

CRC's work consisted of review of available project information and correspondence provided by the project proponent, local environmental and cultural information, and historical maps; and field investigations. Field investigations consisted of archaeological monitoring of geotechnical exploration pits, pedestrian survey, and subsurface testing via hand excavated shovel test probes. On November 13, 2019, CRC contacted cultural resources staff at the Confederated Tribes and Bands of the Yakama Nation (Yakama Nation) on a technical staff- to-technical staff basis to inquire about project-related cultural information or concerns (Attachment A). This communication was not intended to be or intended to replace formal government-to-government consultation with affected Tribes. At the time this report was completed no responses regarding the project had been received. Any additional information made available subsequent to the submission of this report will be included in a revision of this report. This assessment utilized a research design that considered previous studies, the magnitude and nature of the undertaking, the nature and extent of potential effects on historic properties, and the likely nature and location of historic properties within the project, as well as other applicable laws, standards, and guidelines (per 36CFR800.4 (b)(1)) (DAHP 2019a).

3.0 Affected Environment

3.1 2002 Cle Elum EIS Affected Environment

Information for the cultural resources that would potentially be impacted based on FEIS Alternative 5 from the 2002 Cle Elum FEIS was summarized from *A Land Use History of the Proposed Mountain StarResort: The Results of a Cultural Resource Survey along the Lower Cle Elum River* (Churchill and Griffin 1999). Churchill and Griffin (1999) identified twenty-three previously recorded archaeological resources that are located within the FEIS Alternative 5 area.

Of the 23 previously recorded archaeological resources, six were precontact (four sites and two isolates). All six precontact archaeological resources were found to be potentially eligible for listing on the National Register of Historic Places (NRHP) under Criterion D based on their ability to yield potential information about settlement and subsistence patterns that are significant to the understanding of regional prehistory.

Of the remaining 17 historic-era archaeological sites, 14 were designated as refuse scatters dating from the mid-nineteenth to the twentieth centuries. These were considered to potentially contain subsurface components that may be eligible for inclusion in the NRHP. The remaining three historic-era archaeological resources include the Cle Elum Chlorination Building, sections of the old Cle Elum waterline, and an isolated find. The 2002 report did not state whether or not these cultural resources were eligible for listing on the NRHP.

Also noted was the possibility that a segment of the Yakama Trail is located within an area designated as undeveloped open space according to the FEIS Alternative 5 plans. This area was considered to potentially have significance as a Traditional Cultural Property.

3.2 2020 SEIS Affected Environment

3.2.1 Overview

In 2019, a comprehensive assessment was conducted for the SEIS to determine the potential impacts to the affected environment. The context presented here summarizes environmental, ethnographic, historical, and archaeological information presented in: previously completed cultural resource assessment reports by reference; archaeological and historic data from DAHP and WISAARD records search; ethnographic resources; geological and soils surveys (e.g., USDA NRCS 2019; WA DNR 2019); historical maps and documents from Bureau of Land Management United States Surveyor General (USSG) Land Status & Cadastral Survey Records database, HistoryLink, Historic Map Works, HistoricAerials (NETR 2019), University of Washington's Digital Collection, Washington State University's Early Washington Maps Collection, and in CRC's library. Field investigations for this assessment were inclusive of archaeological monitoring, pedestrian survey, and subsurface testing.

3.2.2 Environmental Context

Overview: The project is located along the eastern slopes of the Cascade Mountains within the Cle Elum River Basin in Central Washington. The Cle Elum River passes through the western portion of the proposed project and converges with the Yakima River approximately .6 mile south of the project. The project boundary is partially demarcated by I-90 to the south and Bullfrog Road to the west and north. Elevation within the project ranges from 1982 to 2164 feet. The property is forested and is currently utilized by horseback riders, hikers, and bike riders. There are a number of trails and dirt roads throughout the project location. The project lies on two distinct terraces, the upper terrace being in the eastern two-thirds of the project and the lower terrace in the western third. The property is located within the *Abies grandis* (grand fir) zone of the North Cascades Province (Franklin and Dyrness 1973). Other plants within the project include snowberry, Oregon grape, blackberry, wild rose, strawberry, various grasses and weeds, kinnikinnick, and balsam root. Currently, ground disturbance is planned under the SEIS

alternatives for the upper terrace and potentially in two locations on the lower terrace where Public Trail Parks are planned.

Geomorphology: The topography and geology of the central Washington region has been shaped by a unique series of geomorphological events that are reflected in the landscape of the project location. The project is within the Northern Cascade Province characterized by north-south trending mountains comprised primarily of ancient sedimentary rock that have been partially metamorphosed. The peaks and ridges within this zone are relatively uniform in elevation and the valleys are consistently deep with steep sides (Franklin and Dyrness 1973).

As previously described by Ives and Gough (2010):

Bedrock in the project area dates from the Eocene Epoch (ca. 55-34 million years ago) and includes a series of early Eocene sandstones and siltstones of the Swauk Formation capped by “the relatively undeformed lava flows of the middle Eocene Teanaway Formation that are in turn overlain by the coal-bearing fluvial sandstone beds of the Roslyn Formation.” (Tabor et al. 2000:13). These extensively mined, coal bearing beds in the vicinity of the project area appear as “thick-bedded nonmarine arkosic sandstone, conspicuously white, weathering yellow” (Tabor et al. 1982:14).

The Pleistocene epoch, defined by successive glaciation during a cooler climatic period, began approximately 2.5 million years ago. During the Late Pleistocene or last glacial period (110,000-12,000 years ago), the Cordilleran ice sheet covered much of the American northwest and scoured the landscape during advance and retreat episodes caused by localized climate fluctuations. By the end of the Pleistocene, much of the Cle Elum and surrounding valleys (e.g., Keechelus and Kachess) were covered by extensive glaciation. The onset of climatic warming approximately 14,000 years ago caused the ice sheets to retreat to the north and began the transition into the Holocene. During this period, glacial lakes formed behind heavy terminal moraines that had built up across the valley (Franklin and Dyrness 1973; Saunders 1914).

Mapped Surface Geologic Unit(s): The surface geology in the project location is mapped as Qal, Pleistocene glacial and nonglacial deposits (WA DNR 2019). This unit is described as alluvium, colluvium, loess, till, outwash, glacial drift, etc. This includes sediments ranging in size from boulders to clay.

Mapped Soil Unit(s): Several soil units are mapped in the project location (USDA NRCS 2019). The majority of the project is located on an upper, flat terrace above the Cle Elum River. This portion of the project is mapped as Roslyn ashy sandy loam, 0 to 5 percent slopes. These soils are formed on terraces from glacial drift with a mantle of loess and volcanic ash. A typical profile of this soil unit is moderately decomposed plant material from 0 to 1 inch, two horizons of ashy sandy loam from 1 to 15 inches, loam from 15 to 37 inches, and two horizons of gravelly loam from 37 to 60 inches below the ground surface.

The lower terrace in the western section of the project location consists of Racker ashy sandy loam, 0 to 5 percent slopes. This soil forms on terraces from glacial outwash with a mantle of volcanic ash. A typical profile of this soil unit consists of moderately decomposed plant material from 0 to 1 inch, ashy sandy loam from 1 to 5 inches, gravelly ashy sandy loam from 5 to 12

inches, and two horizons of very cobbly loamy sand from 12 to 60 inches below the ground surface.

The slope between these two soil units consists of Dystroxerepts, 45 to 65 percent south slopes. This soil forms on escarpments in glacial outwash with an influence of volcanic ash in the upper part. A typical profile of this soil consists of moderately decomposed plant material from 0 to 1 inch, ashy sandy loam from 1 to 7 inches, gravelly ashy loam from 7 to 18 inches, and very gravelly sandy loam from 18 to 60 inches below the ground surface.

Climate: Since the late Pleistocene, three major episodes of climate change have contributed to variations in temperature, sediment accumulation, and vegetation development (Mehring 1985). As discussed above, the climate became relatively warmer between approximately 13,000 and 9000 years B.P. and vegetation communities began to develop as glaciers retreated and landforms stabilized. The climate became increasingly warmer and drier during the Holocene. As a result, the streams and lakes that characterized the late Pleistocene began to evaporate resulting in a shift from hydric to xeric vegetation communities that were later replaced by mixed coniferous forests and deciduous shrubs by approximately 4000 B.P. By 2500 B.P., the climate shifted to a cooler and wetter regime comparable to the present-day conditions. Historically, the Columbia River valley and major drainages in the surrounding area contained a relatively rich environment where an array of plant and animal resources could be procured (Chatters 1986).

3.2.3 Archaeological Context

Archaeological evidence suggests that as the transition into an ice-free regional landscape allowed the area to be suitable for habitation in the late Pleistocene following the subsidence of glacially derived floods and the stabilization of local landforms. Subsequent changes to landforms, climate, and vegetation influenced the available resources and, consequently, the spatial distribution and subsistence strategies of humans living on the landscape. Recent investigations support human presence in northwestern North America dating to the late Pleistocene (Gilbert et al. 2008). The Cle Elum and Roslyn areas fall within an area encompassed by the Columbia River Plateau Cultural Area (Anastasio 1972; Ames et al. 1998). Early human occupation in the Cle Elum area and Columbia Plateau dates to approximately 13,000 years ago and provides the upper limit of generally accepted phase designations developed from previous research for the Plateau region (e.g., Beck and Jones 2010; Brown et al. 2019; Chatters 1986; Daugherty 1956; Galm et al. 1981; Greengo 1982, 1986; Hollenbeck and Carter 1986; Lohse 1985, 2005; Mehring and Foit 1990; Nelson 1969; Rice 1969; Schalk 1982). These designations follow changes in settlement and subsistence strategies through time as climate, technology and population density changed. The trend noted in these phases is a pattern of adaptation from an upland hunting strategy to a semi-sedentary riverine-based subsistence organization over time. This change broadly occurs between an earlier tradition comprised of several phases (Western Stemmed Tradition: ca. 13,000 to 11,000 B.P.; Clovis: ca. 11,500(?) to 11,000 B.P.; Windust: ca. 11,000 to 8000 B.P.; Vantage/Cascade: ca. 8000 to 4500 B.P.) and a subsequent, two-phase tradition: Frenchman Springs (ca. 4500 to 2500 B.P.), and Cayuse (ca. 2500 B.P. to 250 B.P.) (Ames et al. 1998; Swanson 1956) and is summarized in Berger (2015):

The division between the two broad traditions is marked by the archaeological appearance of several apparent innovations. Pithouses are first recognized during this time; other artifacts appear, such as

those suggestive of resource intensification (ground stone mortars, pestles, and net sinkers). Also apparent is increased variation in stone-working technology, decline in the predominance of basalt, and the appearance of small stemmed and larger notched projectile points. Archaeological evidence of a riverine-based residence pattern, supported by seasonal camps at upland locations, appears to correspond with the ethnographically observed Plateau pattern. The earliest manifestations of this residence pattern are present by about 4500 years ago.

The Plateau winter village pattern, noted in ethnographic literature, appears to have been established by 2500 B.P. The Plateau subsistence model indicates a pattern of riverine settlement, a reliance on riverine and root resources, the development of complex fishing technologies, and the extension of trading patterns and extension of apparent political links (Greengo 1986; Nelson 1969; Swanson 1956). An increase in the frequency of net sinkers suggests a multifaceted economy emphasizing large-scale fishing, this possibly organized into inter-village groups. Points dated to the Cayuse period are generally smaller, with notching occasionally added to the chipped triangular form (Nelson 1969). Bow and arrow technology appears to be widespread by about 2000 years B.P., based on the morphology of projectile points from this time period. Cultural traditions established by the onset of the Cayuse phase appear to persist with little variation to the contact era, about 200 years ago, when disruptions associated with the Euro-American presence in the region resulted in a breakdown of traditional social patterns.

3.2.4 Ethnographic Context

Traditional Territory: The project location is situated within the traditional territory of the Sahaptin-speaking Kittitas and Yakama people (Ray 1936; Schuster 1998; Spier 1936). The Kittitas and Yakama utilized the upper Yakima River Region as a residential area as well as part of their seasonal rounds following their subsistence practices (Bynum et al. 1995). Other groups, such as the Southern Lushootseed-speaking Snoqualmie bands also ventured into the Cascade Range, and may have overlapped with the Kittitas and Yakama. The resource rich area provided groups the ability to sustain themselves following a generally cyclical pattern (Spier 1936). As summarized by Griffin and Churchill (1998a):

The cultures of the Columbia River Plateau area were characterized by locally autonomous villages, which sometimes grouped together to form bands with a central chieftainship (Ray 1939; Anastasio 1975). Territorial boundaries were generally delineated by geography, but were crossed regularly (Chance 1973). Each band had a permanent winter village located along a principal water source with principal subsistence activities comprised of hunting, fishing and the gathering of plant resources. Subsistence activities generally followed a cyclical pattern. Winter villages were used until the snows melted and early spring roots and berries became available. From early spring to early summer, inhabitants would separate into smaller groups in order to hunt game and gather roots and berries in the uplands. Fishing activities dominated between mid-June to October. During the summer season small groups would begin to concentrate at fisheries along the principal area drainages. After the fish runs had ended, native peoples scattered into the mountain regions to hunt large game and pick berries. By the time the winter snows first began to appear, native families would have migrated back to their winter villages.

Trading centers such as The Dalles and Celilo Falls were important to interior Plateau people and Coast Salish alike. Goods such as roots, horses, furs, skins, dried clams and salmon, pemmican, clothing, baskets, and robes were items often traded (Schuster 1998). In addition to gathering on the Columbia River, trails through Snoqualmie Pass and the Cascade Mountains facilitated trade amongst the Plateau and Puget Sound Indian groups. These trails became useful for early non-Native travelers as well for trapping and trading (Prater 1981).

Ethnographic Place Names: Early ethnographers documented locations of villages and names for resource areas, water bodies, and other cultural or geographic landscape features from local informants. Knowledge of these features contributes to the broader archaeological context of the project location and the nature of the archaeology that may be encountered during this assessment. Similar to elsewhere, ethnographic named places are largely centered on water bodies (J. Miller 1998). On the southern end of Cle Elum Lake, northwest of the town of Cle Elum is *tle'lam*, an important summer village (Ray 1936). This village was said to have attracted as many as 1,000 people to fish during June and July. The winter village *tátxanisha* was located on the southern banks of the Yakima River approximately four miles downriver from the town of Cle Elum. Another winter village, *tiánawins* was located near the mouth of the Teanaway River (Ray 1936; Shuster 1998). No recorded places have been mapped in the project location in available, reviewed literature.

3.2.5 Historic Context

The first non-native settlers, Catholic missionaries, arrived in the Kittitas Valley in the 1840s. In an 1855 Treaty, the Yakamas ceded most of their ancestral land, including the future site of Cle Elum, and were placed on a reservation in the lower Yakima Valley.

The project is located within the Ceded Lands of the Yakama Nation, the legal rights to which were established by the Treaty of 1855 (12 Stat. 951). The Treaty between Yakama Nation and the United States Government set forth that Yakama Nation shall retain rights to resources upon lands defined therein as Ceded Lands and Usual and Accustomed Places. These Treaty Reserved Rights have been defended and affirmed at the highest level of our judicial system. Yakama Nation continues to exercise Treaty-Reserved Rights to protect traditional resources. [N. Oliver, Yakama Nation Cultural Resources Program, electronic transmittal to City of Cle Elum, 2 October 2020; copy on file at CRC]

Most of the Kittitas had been forced onto the Yakama Reservation by 1859 (Kershner 2013). Soon after, cattle ranchers began to inhabit the lower Kittitas Valley in search of fertile range land. Miners discovered gold and coal in the area beginning in the 1870s and the influx of travelers began (Shideler 1986:43). In 1883, two childhood friends, Walter Reed and Thomas Gamble, reunited and filed preemption claims in what would become Cle Elum (Newland and Newland-Thompson 2018). Two years later, Reed amongst others discovered coal three miles to the west within the future townsite of Roslyn. Miners flocked to the region. Coincidentally, the Northern Pacific railroad was steadily pushing westward and nearing the upper Kittitas Valley. A depot was planned for Teanaway; however Reed was able to influence the Northern Pacific and had the depot moved to Cle Elum and requested the engineers plot the town (Kittitas County Centennial Committee 1989). The name Cle Elum comes from Native names for the river. According to Oliver and Camuso (2017:13),

The Cle Elum River is a traditional use area. Its native place name is *tlelam* its meaning “water passing through bluffs” or “converging ridges that open up into a valley” (Johnson Meninick, personal communication, May 10, 2017). Historic documents indicate the place name of *tle-el-lum* is derived by the native inhabitants name for the river, its meaning being “swift water” (Interstate Publishing Company 1904).

In addition to mining the nearby hills and working for the railroad, people found employment logging the surrounding forests, which primarily supported the burgeoning mining industry. A

town was starting to emerge. By 1890, Cle Elum had a population of 337 people. That same year a dedicated school building was built (Shideler 1986: 31).

By the 1920s, the mining industry in Cle Elum had begun to fade and it was completely gone by the 1960s. The secondary industry, logging, had already peaked by then as well (Kershner 2013). With the absence of coal mining and the decline of logging, the population of Cle Elum steadily declined through the majority of the twentieth century. The construction of the Sunset Highway in 1915, and later Interstate 90 in 1964, provided jobs in the short term and enabled Cle Elum the opportunity to become a welcome spot for travelers and tourists in the future (Shideler 1986). Cle Elum is the first substantial town on the east side of the Cascades from I-90 located just 31 miles east of Snoqualmie Pass. Cle Elum's economy became increasingly dependent on tourism and recreation through the twentieth century. In 2003 the construction of a residential/recreational resort, Suncadia, commenced which marked a new era of tourism in the Cle Elum area. The number of tourists visiting the area has increased greatly and the permanent population of the town is slowly rising. Within the project area, selective logging has likely occurred, however most recently the area has been utilized recreationally by horse riders, dirt bikers, and hikers.

3.2.6 Historical Records Search

Review of historical maps and aerial imagery provide an understanding of the historic and modern land use, and ownership of the project. The General Land Office (GLO) conducted early cadastral surveys to define or re-establish the boundaries and subdivisions of Federal Lands of the United States so that land patents could be issued transferring the title of the land from the Federal government to individuals. The 1881 GLO map depicts the project north of the Yakama River (Yakima River) with the Tleelum River (Cle Elum River) passing through the western section of the project location flowing from north to south (USSG 1881). A road is depicted on this map traveling in an east to west direction and passes through the project location in Sections 32 and 31. A small trail is also depicted on this map, crossing the Tleelum River (Cle Elum River) at the boundary of Sections 32 and 31. No other trails, homesteads, 'Indian villages', or other cultural features are shown in the project location.

Records on file at the Bureau of Land Management (2019) demonstrate the following land claims within the project:

- Thomas R. Brazil received a patent for the SE¼ of Section 28 on November 9, 1891 (BLM Serial Nr: WAYAA 056236; Document Nr. 1020; Authority: March 3, 1873: Sale-Coal Land [17 Stat. 607]);
- Marion H. Cahil received a patent for the NE¼ of Section 28 on February 7, 1893 (BLM Serial Nr: WAYAA 056249; Document Nr. 1104; Authority: March 3, 1873: Sale-Coal Land [17 Stat. 607]); J
- James A. Dennis received a patent for the SW¼ of Section 28 on November 9, 1891 (BLM Serial Nr: WAYAA 056239; Document Nr. 1023; Authority: March 3, 1873: Sale-Coal Land [17 Stat. 607]);
- Michael Richards received a patent for the NW¼ of Section 28 on August 18, 1888 (BLM Serial Nr: WAYAA 056225; Document Nr. 171; Authority: May 20, 1862: Homestead Entry Original [12 Stat. 392]);

- Northern Pacific Railroad Company received a patent for Section 29, the E½ of Section 31, and the NE ¼ of Section 32 on November 4, 1895 (BLM Serial Nr: WAYAA 045468; Document Nr. 44; Authority: July 2, 1864: Grant-RR Northern Pacific [13 Stat. 365]);
- George Elliot received a patent for the NE¼SE¼ of Section 30 and the S½SE¼ of Section 30 on February 7, 1893 (BLM Serial Nr: WAYAA 056251; Document Nr. 1106; Authority: March 3, 1873: Sale-Coal Land [17 Stat. 607]);
- Moses M. Emerson received a patent for the SW¼NW¼ of Section 32 on February 21, 1902 (BLM Serial Nr: WAYAA 056274; Document Nr. 1317; Authority: April 24, 1820: Sale-Cash Entry [3 Stat. 566]);
- Charles E. Rader received a patent for the SE¼NW¼ of Section 32 on March 3, 1893 (BLM Serial Nr: WAYAA 056254; Document Nr. 1129; Authority: March 3, 1873: Sale-Coal Land [17 Stat. 607]); and
- Winfield S. Wilson received a patent for the N½NW¼ of Section 32 on October 18, 1892 (BLM Serial Nr: WAYAA 056248; Document Nr. 1090; Authority: March 3, 1873: Sale-Coal Land [17 Stat. 607]).

The 1956 county atlas depicts the project within lands owned by Northwestern Improvement Company, which was a subsidiary of the Northern Pacific Railway. There are a number of roads within the project location, including the Old Sunset Hwy (Metsker 1956). Historic aerial imagery is not available until 1994 for the project location (Google Inc. 2019; NETR 2019). Imagery from this time shows the project within forested land with the transmission line corridors and Wood Duck Road in their current locations. A few trails can also be seen in imagery from that time. Between 1998 and 2006, a dirt road was constructed coming off of Bullfrog Road within the transmission line corridor and the trails previously noted became more apparent (Google Inc. 2019; NETR 2019).

3.2.7 Cultural Resources Database Review

A review of DAHP's WISAARD database identified previous cultural resource studies, recorded precontact and historic archaeological sites, and recorded historic built environment (e.g., sites, structures, buildings, objects, landscapes) in proximity to the project, which helps gauge the potential and likely nature of cultural resources present within the project location (DAHP 2019b). Cultural resources are typically defined as significant or potentially significant if they are identified as of special importance to an ethnic group or Indian tribe or if the resource is considered to meet certain eligibility criteria for the NRHP or other local, state, or national historic registers. Based on NRHP assessment criteria developed by the National Park Service (NPS 2002:2), historical significance is conveyed by properties that:

- A. Are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. Are 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.

According to NRHP guidelines, the “essential physical features” of a property must be intact for it to convey its significance, and the resource must retain its integrity, or “the ability of a property to convey its significance” (NPS 2002:44). The seven aspects of integrity are:

- 1) Location (the place where the historic property was constructed or the place where the historic event occurred);
- 2) Design (the combination of elements that create the form, plan, space, structure, and style of a property);
- 3) Setting (the physical environment of a historic property);
- 4) Materials (the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property);
- 5) Workmanship (the physical evidence of the crafts of a particular culture or people during any given period of history or prehistory);
- 6) Feeling (a property's expression of the aesthetic or historic sense of a particular period of time); and
- 7) Association (the direct link between an important historic event or person and a historic property).

Criteria used for assessment of potential eligibility for the Washington Heritage Register (WHR) are similar to NRHP criteria. Criteria to qualify include:

- The resource should have documented historical significance at the local or state level
- The resource should have a high to medium level of integrity
- The resource must be at least 50 years old. If newer, the resource should have documented exceptional significance

Eighty previously recorded cultural resources have been identified within one mile of the project location, 15 of which are recorded within the proposed project boundary. Seven cultural resource assessments have been conducted within the project location and an additional 21 assessments have been conducted within approximately one mile of the proposed project. These investigations have been completed for proposed land developments (Churchill and Griffin 1999a; Griffin and Churchill 1998a, 1998b, 1999; Landreau 2009; Schroeder and Landreau

2012; Vaughn et al 2012; Woody et al. 2008), a water treatment facility installation (Churchill and Griffin 1999b), the sale of Forest Service property (Beidl 2005), tree thinning (Churchill and Griffin 1998), timber harvesting (Churchill 1997; F. Miller 1998; Oliver and Camuso 2014), substation improvements (Schultze et al. 2012), fiber optic line installation (Fagan 1999), sinkhole restoration (Griffin and Churchill 1998c), fish habitat restoration (Hamilton et al. 2001), road improvements (Landreau and Schroeder 2013), railyard development (McCombs 2002), park installation (Oliver and Camuso 2017), pathway construction (Root and Ferguson 2008; Vaughn et al. 2011), weigh station development and expansion (Holstine 1997; Robinson 1996), transportation facility construction (Perhay and Amell 2019), slash pile burning (Griffin and Churchill 1998d), and horse park development and improvements (Ives and Gough 2010; Komen and Ives 2010). Most of the previous studies were considered to have a moderate to high probability of observing cultural materials. This was likely due to the proximity to the Cle Elum and Yakima Rivers and known use of the area. Only five previous studies completed within one mile did not identify archaeological sites (Churchill 1997; Landreau and Schroeder 2013; F. Miller 1998; Perhay and Amell 2019; Root and Ferguson 2008).

There are 80 sites recorded within a one-mile radius of the project location. Many of these sites have been evaluated for eligibility to be listed in the NRHP and have received a determination from DAHP. Sites recorded within one mile from the project include historic debris/refuse scatters (40), historic mining properties (4), historic railroad properties (1), historic buildings/foundations (3), historic homesteads (3), historic trail (1), historic waterline (1), historic bridge (1), historic isolates (5), precontact isolates (9), precontact camps (4), precontact lithic material (6), and depressions of unknown age or purpose (2). Of these sites, 15 (45KT1019, 45KT1227, 45KT1368, 45KT1376, 45KT1484, 45KT2092, 45KT2096, 45KT2098, 45KT2099, 45KT2139, 45KT2140, 45KT2141, 45KT2146, 45KT3331, and 45KT3332) are located within the proposed project boundary. Each of these sites has been evaluated for eligibility to be listed in the NRHP and received a determination from DAHP. Two sites were re-evaluated in the course of subsequent investigations but DAHP did not issue a new eligibility determination.

Sites 45KT2092, 45KT2096, 45KT2098, 45KT2099, 45KT2139, 45KT2140, and 45KT2141 were recorded as historic refuse scatters and were determined not eligible for the National Register of Historic Places (NRHP). These sites are either within, or close to areas with potential ground disturbances and may be impacted by the proposed project.

Site 45KT1484 was recorded as precontact isolate consisting of a single flake fragment and was determined not eligible for the NRHP. Although the site is located within the proposed project boundary, it is not within areas with proposed ground disturbances and will not be impacted by the project as planned.

Site 45KT2146 was recorded as an historic waterline and was determined not eligible for the NRHP. Portions of the historic waterline pass through areas of proposed ground disturbance and may be impacted by the proposed project.

Site 45KT3331 consists of the Cle Elum waterline chlorination building. This site was determined not eligible for the NRHP and is outside the areas with proposed ground disturbances; as such, it will not be impacted by the project as planned.

Site 45KT3332 is a historic debris scatter described as a two glass vessels and six vent hole cans discarded just east of Bullfrog Road. It was determined not eligible for the NRHP and is outside the areas with proposed ground disturbances; as such, it will not be impacted by the project as planned.

Site 45KT1019 was recorded as a sparse precontact lithic scatter and was determined eligible for the NRHP. When first recorded in 1995, the site had been heavily impacted by modern use (Powell 1995). A subsequent visit to the site described additional heavy impacts from logging and observed just one lithic flake (Churchill 1998). This site is located outside the areas of proposed ground disturbances and will not be impacted by the project as planned.

Site 45KT1227 was originally recorded as a precontact isolate consisting of a sparse scatter of lithic debitage and raw material (Powell 1994). In 1998, archaeologists revisited the site location and expanded the site to include three additional pieces of debitage and raw materials that were observed outside the original site boundary. The initial artifacts observed in 1994 were not relocated (Churchill 1999). Archaeologists once again revisited the site in 2010 (Ives and Gough 2010). At that time, 14 shovel test probes were excavated. No cultural materials or features were observed. The site was originally determined eligible for the NRHP, however Ives and Gough (2010) noted that the site no longer contains properties that have yielded or would be likely to yield information important in history or prehistory and therefore should no longer be considered eligible.

Site 45KT1368 was first recorded as a sparse lithic scatter and was determined eligible for the NRHP. The site was later found to be much more extensive, consisting of protohistoric aged artifacts, features, possible house structures, and human remains. This site is outside the areas with proposed ground disturbances and will not be impacted by the project as planned.

Site 45KT1376 was initially recorded as an isolated biface fragment and the site was determined eligible for the NRHP (Griffin 1998). Subsequent testing of the site recovered eight additional artifacts (six pieces of debitage, a uniface, and a battered cobble [pestle]) from between 20 and 40 cmbs (Churchill 1999). Archaeologists revisited and tested the site again in 2010 (Ives and Gough 2010). At that time, a single lithic flake was recovered from subsurface investigations consisting of 46 shovel test probes. Archaeologists noted that the low density and poor context of artifacts recovered from the site leave little research potential and recommend that the site no longer be considered eligible for listing in the NRHP. Regardless, the site is located outside the areas with proposed ground disturbances and will not be impacted by the project as planned.

Table 1. Archaeological sites recorded within a one-mile radius from the proposed project location (DAHP 2019).

| Site Number | Site Type | Distance from Project | Historic Register Status |
|-------------|---------------------------|--|--------------------------|
| 45KT1019 | Precontact lithic scatter | Within project location but outside proposed development | Determined eligible |

| Site Number | Site Type | Distance from Project | Historic Register Status |
|-------------|--|--|---|
| 45KT1227 | Precontact lithic material | Within project location and proposed development | Determined eligible; later recommended not eligible (Ives and Gough 2010) |
| 45KT1368 | Precontact camp and human remains | Within project location but outside proposed development | Determined eligible |
| 45KT1376 | Precontact camp | Within project location but outside proposed development | Determined eligible; later recommended not eligible (Ives and Gough 2010) |
| 45KT1484 | Precontact isolate | Within project location but outside proposed development | Determined not eligible |
| 45KT2092 | Historic refuse scatter | Within project location and proposed development | Determined not eligible |
| 45KT2096 | Historic debris scatter | Within project location and proposed development | Determined not eligible |
| 45KT2098 | Historic refuse scatter | Within project location and proposed development | Determined not eligible |
| 45KT2099 | Historic refuse scatter | Within project location and proposed development | Determined not eligible |
| 45KT2139 | Historic refuse scatter | Within project location and proposed development | Determined not eligible |
| 45KT2140 | Historic refuse scatter | Within project location but outside proposed development | Determined not eligible |
| 45KT2141 | Historic refuse scatter | Within project location and proposed development | Determined not eligible |
| 45KT2146 | Historic waterline | Within project location and proposed development | Determined not eligible |
| 45KT3331 | Historic structure/waterline chlorinating building | Within project location but outside proposed development | Determined not eligible |
| 45KT3332 | Historic debris scatter | Within project location but outside proposed development | Determined not eligible |
| 45KT1018 | Depression | .61 mile | Determined eligible |
| 45KT1361 | Precontact isolate | .1 mile | Determined eligible |
| 45KT1364 | Precontact lithic material | .77 mile | Determine eligible |
| 45KT1365 | Precontact lithic material | .66 mile | Determined eligible |
| 45KT1367 | Depression | .1 mile | Determined eligible |
| 45KT1373 | Precontact isolate | .67 mile | Determine eligible |
| 45KT1374 | Precontact isolate | .47 mile | Determined eligible |
| 45KT1375 | Precontact isolate | .5 mile | Determined eligible |
| 45KT1378 | Historic cabin/homestead | .96 mile | Determined eligible |
| 45KT1380 | Historic mine complex | .62 mile | Determined eligible |
| 45KT1642 | Precontact isolate | .47 mile | Determined not eligible |
| 45KT1643 | Precontact camp | .22 mile | Not determined |
| 45KT1644 | Precontact camp | .1 mile | Not determined |
| 45KT1738 | Precontact isolate | .35 mile | Not determined |
| 45KT2079 | Historic refuse scatter | .1 mile | Determined not eligible |
| 45KT2080 | Historic refuse scatter | .1 mile | Determined not eligible |
| 45KT2081 | Historic refuse scatter | .21 mile | Determined not eligible |
| 45KT2082 | Historic debris scatter | .71 mile | Determined not eligible |
| 45KT2083 | Historic debris scatter | .04 mile | Determined not eligible |
| 45KT2084 | Historic debris scatter | .06 mile | Determined not eligible |
| 45KT2085 | Historic debris scatter | .10 mile | Determined not eligible |

| Site Number | Site Type | Distance from Project | Historic Register Status |
|-------------|----------------------------|-----------------------|--------------------------|
| 45KT2086 | Historic debris scatter | .84 mile | Determined not eligible |
| 45KT2087 | Historic debris scatter | .57 mile | Determined not eligible |
| 45KT2088 | Historic debris scatter | .64 mile | Determined not eligible |
| 45KT2090 | Historic debris scatter | .5 mile | Determined not eligible |
| 45KT2091 | Historic foundation | .5 mile | Determined not eligible |
| 45KT2093 | Historic refuse scatter | .27 mile | Determined not eligible |
| 45KT2094 | Historic homestead | .42 mile | Determined not eligible |
| 45KT2095 | Historic debris scatter | .1 mile | Determined not eligible |
| 45KT2097 | Historic refuse scatter | .28 mile | Determined not eligible |
| 45KT2100 | Historic mining | .4 mile | Not determined |
| 45KT2101 | Historic homestead | .48 mile | Determined not eligible |
| 45KT2135 | Historic bridge | .06 mile | Determined not eligible |
| 45KT2136 | Historic refuse scatter | .35 mile | Determined not eligible |
| 45KT2137 | Historic refuse scatter | .41 mile | Determined not eligible |
| 45KT2138 | Historic refuse scatter | .44 mile | Determined not eligible |
| 45KT2611 | Historic debris scatter | .34 mile | Not determined |
| 45KT2618 | Historic isolate | .42 mile | Not determined |
| 45KT2710 | Historic railroad | .27 mile | Not determined |
| 45KT2825 | Historic debris scatter | .86 mile | Determined not eligible |
| 45KT2901 | Historic debris scatter | .83 mile | Determined not eligible |
| 45KT3054 | Historic mining | .1 mile | Determined not eligible |
| 45KT3333 | Historic debris scatter | .73 mile | Determined not eligible |
| 45KT3343 | Historic isolate | .15 mile | Determined not eligible |
| 45KT3347 | Historic refuse scatter | .27 mile | Not determined |
| 45KT3348 | Historic debris scatter | .5 mile | Not determined |
| 45KT3349 | Historic structure | .16 mile | Not determined |
| 45KT3354 | Historic mining | .62 mile | Determined not eligible |
| 45KT3461 | Precontact isolate | .55 mile | Not determined |
| 45KT3462 | Precontact isolate | .61 mile | Not determined |
| 45KT3463 | Precontact lithic material | .54 mile | Not determined |
| 45KT3464 | Precontact lithic material | .77 mile | Not determined |
| 45KT3483 | Historic refuse scatter | .05 mile | Not determined |
| 45KT3486 | Historic refuse scatter | .15 mile | Determined not eligible |
| 45KT3487 | Historic refuse scatter | .2 mile | Determined not eligible |
| 45KT3488 | Historic refuse scatter | .2 mile | Determined not eligible |
| 45KT3489 | Historic refuse scatter | .2 mile | Determined not eligible |
| 45KT3490 | Historic debris scatter | .1 mile | Determined not eligible |
| 45KT3492 | Historic refuse scatter | .06 mile | Determined not eligible |
| 45KT3493 | Historic isolate | .15 mile | Not determined |
| 34KT3494 | Historic isolate | .15 mile | Not determined |
| 45KT3495 | Historic isolate | .2 mile | Not determined |
| 45KT3735 | Historic refuse scatter | .27 mile | Not determined |
| 45KT3736 | Historic refuse scatter | .37 mile | Not determined |
| 45KT4021 | Historic trail | .18 mile | Determined eligible |

There are five properties listed on either the NRHP or WHR or both within one mile of the project location: the Cle Elum-Roslyn Beneficial Association Hospital; the Chicago, Milwaukee, St. Paul, & Pacific Railroad; the Roslyn Riders Club House, Track & Arena; and the Roslyn Historic District (Table 2). None of these properties will be impacted by the current project plans.

Table 2. Historic register listed properties located within one mile from the project (DAHP 2019).

| DAHP Property # | Address | Resource Name/Common Name | Build Date | Historic Use | Historic Register Status |
|-----------------|---------------------------------------|---|------------|--------------------|--------------------------|
| DT179 | South Cle Elum | Chicago, Milwaukee, St. Paul, & Pacific Railroad: South Cle Elum Yard | 1909 | Transportation | NRHP; WHR |
| 700160 | 505 Power St Cle Elum, WA | Cle Elum-Roslyn Beneficial Association Hospital | 1905 | Hospital | NRHP; WHR |
| 700380 | SR903 and Martin Rd Cle Elum, WA | Roslyn Rider Club House, Track, and Arena | 1956 | Cultural landscape | WHR |
| 700244 | 119 W 1 st Cle Elum, WA | Douglas A Munro Memorial | 1948 | Memorial | WHR |
| DT00002 | WA 2E Roslyn, WA | Roslyn Historic District | 1886 | Historic District | NRHP; WHR |

Additionally, four structures have been inventoried within approximately .50 mile of the project location (Table 3). None of these structures are located within the project location and will not be impacted by the current project plans.

Table 3. Historic inventoried properties located within .5 mile from the project (DAHP 2019).

| DAHP Property # | Address | Resource Name/Common Name | Build Date | Historic Use | Historic Register Status |
|-----------------|---|---------------------------|------------|-------------------|--------------------------|
| 4113 | BNSF railroad between Easton and Cle Elum | BNSF Bridge No. 28.1 | 1942 | Bridge | Not determined. |
| 48143 | 803 W 2 nd St Cle Elum, WA | Ranger Residence | 1934 | Single Dwelling | Determined eligible |
| 633685 | 704 W 2 nd St Cle Elum, WA | Ranger House | 1910 | Multiple Dwelling | Not determined |
| 633207 | 713 Roslyn Pl Cle Elum, WA | None | 1910 | Single Dwelling | Determined not eligible |

Two cemeteries have been recorded within one mile of the project location. They are located outside of the area proposed for development and will not be impacted by the project plans.

Table 3. Cemeteries located within approximately one-mile radius of the project (DAHP 2019).

| Name | Record ID | Address | Established Date | Historic Register Status |
|---------------------------|-----------|--|------------------|--------------------------|
| Laurel Hill Memorial Park | 45KT3086 | 119 W 1 st St Cle Elum, WA | Unknown | Not determined |
| lithic scatter | 45KT1368 | Cle Elum River, | Precontact | Not determined |

3.3 Archaeological Expectations

3.3.1 Archaeological Predictive Model

The DAHP statewide predictive model uses environmental data about the locations of known archaeological sites to identify where previously unknown sites are more likely to be found. The model correlates locations of known archaeological data to environmental data “to determine the probability that, under a particular set of environmental conditions, another location would be expected to contain an archaeological site” (Kauhi and Markert 2009:2-3). Environmental data categories included in the model are elevation, slope, aspect, distance to water, geology, soils, and landforms. According to the model, the majority of the project location is ranked as “Survey Highly Advised: Very High Risk” (DAHP 2019b). Small sections within the project location are ranked as “Survey Highly Advised: High Risk”, and “Survey Recommended: Moderate Risk”. These areas are located on steep slopes between the upper and lower terraces.

3.3.2 Archaeological Expectations

This assessment considers the implications of the predictive model coupled with an understanding of geomorphological context, local settlement patterns, and post-depositional processes to characterize the potential for archaeological deposits to be encountered. Precontact, ethnographic, and historic data generally support the ranking generated by DAHP’s predictive model. Surface geology and soils in the project are the product of Late Pleistocene glaciers. Mapped surface geology and soils suggest that deposition since the outburst floods at the end of the Pleistocene has been minimal and any archaeological deposits would be relatively near the ground surface.

Sections of the project location may have been disturbed by prior developments such as those for which previous cultural resource assessments were conducted. These assessments were completed in response to land development (Churchill and Griffin 1998a, 1998b); water treatment facility installation (Churchill and Griffin 1999); horse park development and improvements (Ives and Gough 2010; Komen and Ives 2010); and weigh station development and expansion (Robinson 1996). However, the majority of the project location has not been surveyed and likely has minimal disturbances. In these areas, if present, intact precontact archaeology would be observed on or near the ground surface and atop the Pleistocene glacier deposits, which are anticipated to be shallowly buried. Precontact archaeology may range in age from Clovis-era (approximately 12,000 years ago) to the ethnohistoric period (beginning approximately 200 years ago). Precontact activities in the project location were likely more transient in nature and could have included overland travel, temporary camps, and/or resource gathering/hunting activities as well as possible ceremonial activities. Precontact materials that may be observed could include middens, caches, hearth features, fire-modified rock, lithic scatters, bone or stone tools or implements, faunal remains, and/or other materials that may represent more transient activities. Precontact sites that have been previously recorded within the project primarily consist of lithic scatters or isolates. Two camps, one with a burial, have been recorded near the Cle Elum River. Because ground disturbing activities are proposed far from the river, it is not likely that sites of a more permanent nature would be observed.

Historic-era archaeological materials, if present, would likely be on or near the ground surface and consist of historic debris scatters or concentrations related to camping, mining, or logging.

These resources are not anticipated to embody the potential to be significant (i.e. intact) and would not likely be eligible for listing on historic registers. Numerous refuse scatters have been recorded near and within the project location. It is anticipated that if historic-era archaeological materials are observed, they would likely be of similar nature.

3.4 Field Investigations

3.4.1 Archaeological Monitoring

Date(s) of Monitoring: October 21-24 2019

Monitoring Methodology: Archaeological monitoring entailed having an archaeologist on site to monitoring geotechnical investigations consisting of the excavation of 47 exploration pits. Exploration pits would be excavated to a maximum depth of 17 feet and would be 3-4 feet wide and 8-9 feet long. The goal of monitoring was to observe subsurface conditions and identify any buried precontact or historic-era archaeological materials or human remains that may be encountered. Monitoring was performed by or under the supervision of a “professional archaeologist” (RCW 27.53.030 (8)).

The monitoring archaeologist stood in close proximity to construction equipment in order to view subsurface deposits as they are exposed and was in close communication with equipment operators to ensure adequate opportunity for observation and documentation. Archaeological monitoring sought to identify potential buried surfaces, anthropogenic sediments, and archaeological features such as shell middens, hearths, or artifact-bearing strata. The monitoring archaeologist inspected project excavations and the recovered sediments for indications of such archaeological resources. The archaeologist was provided the opportunity to screen excavated sediments and matrix samples when it was judged useful to the identification process. It was not expected that any modern fill (e.g., imported culturally-sterile fill) or glacial sediments would be included in screening procedures. If cultural materials were observed in spoils piles, it was expected that these would be removed for examination and that the opportunity to screen spoil sediments would be available. Tested locations were photographed and recorded using a handheld GPS unit.

Monitoring conducted by: Nicole Clennon

3.4.2 Archaeological Survey

Total Area Examined: The entire project site (824 acres) + adjacent property (25 acres).

Areas not examined: None.

Date(s) of Survey: November 18-20, 2019

Weather and Surface Visibility: Weather conditions consisted of cool (45 – 50 °F) partially cloudy days. Mineral soil visibility in the project location was generally poor due to dense forest

duff. Gravelly soils were observed in several areas, primarily on trails and dirt roads throughout the project.

Field Methodology: Fieldwork consisted of pedestrian surface survey and subsurface testing via hand excavated shovel test probes. This project is currently in design phase and archaeological survey was focused on locations of anticipated ground disturbance. This survey did not include the boundary delineation or evaluative testing of previously known archaeological sites. The area designated as potential future commercial space was not investigated during this field investigation. This location will need to be investigated in the future if development is sought. Surface survey was conducted in meandering transects targeting locations with mineral soil visibility. Shovel probes were excavated in areas with proposed ground disturbances and areas that would likely contain deeper Holocene loess based on observations gathered during archaeological monitoring. Probes were manually excavated with a shovel and measured 40 centimeters (cm) in diameter. Target depth for the probes was 20 cm into intact glacial deposits or to the extent of the shovel (approximately 1 m). All sediments were passed through ¼-inch hardware mesh to screen for artifacts. Probe locations were recorded using a handheld GPS unit.

Fieldwork conducted by: Nicole Clennon and Lizzie Fellars. Notes are on file with CRC.

3.5 Results and Recommendations

3.5.1 Investigation Results

Archaeological Monitoring: Archaeological monitoring consisted of observing the excavation of 47 exploration pits on the upper terrace of the project location between Interstate 90 and Bullfrog Road (Figure 5). Daily archaeological monitoring logs were completed and are provided as Attachment B.

The exploration pits extended to depths between 3 and 17 feet below surface and were typically measured 3-4 feet wide by 8-9 feet long. The depositional context of the exploration pits consisted of topsoil, atop varying amounts of loess, atop either glacial till or glacial outwash.

Archaeological monitoring of geotechnical investigations did not result in the identification of artifacts of cultural deposits nor did it demonstrate that the tested locations had a high probability to contain as yet unrecorded archaeological deposits. Monitoring demonstrated that sediments in the horizontal and vertical limits of the project's anticipated ground disturbance had the potential to contain cultural deposits within the loess deposits. The loess deposits varied from 0 to 8.5 feet below the surface, but were most often less than 3 feet deep.

[figure redacted due to sensitive information]

Figure 5. Satellite imagery annotated with the project location in red, potential future commercial development in orange, previously recorded archaeological sites, and the locations of 2019 geotechnical testing (Exploration Pits = EP).

Archaeological Survey: Pedestrian survey provided information on the current condition of the project and helped to gauge the potential for as-yet unknown archaeology within the project location. The project vegetation is comprised of a mix of evergreen trees (e.g., ponderosa pine, Douglas fir), shrubs (snowberry, Oregon grape, blackberry, wild rose), various grasses and weeds, kinnikinnick, and balsam root (Figure 6). The forest appeared to have been logged selectively leaving a relatively open forest canopy and trees ranging in age. Few dirt roads and trails were observed on the upper terrace (eastern and central portion of the project location) (Figures 7 and 8). Transmission line corridors were present in the far eastern and northern portion of the project location (Figure 9). The upper and lower terrace were separated by a steep slope. Both the upper and lower terraces were generally flat, with slightly more undulation on the upper terrace. Horse trails and an obstacle course were observed on the lower terrace (Figure 10). No previously unrecorded historic-era or precontact cultural materials were observed during surface survey.

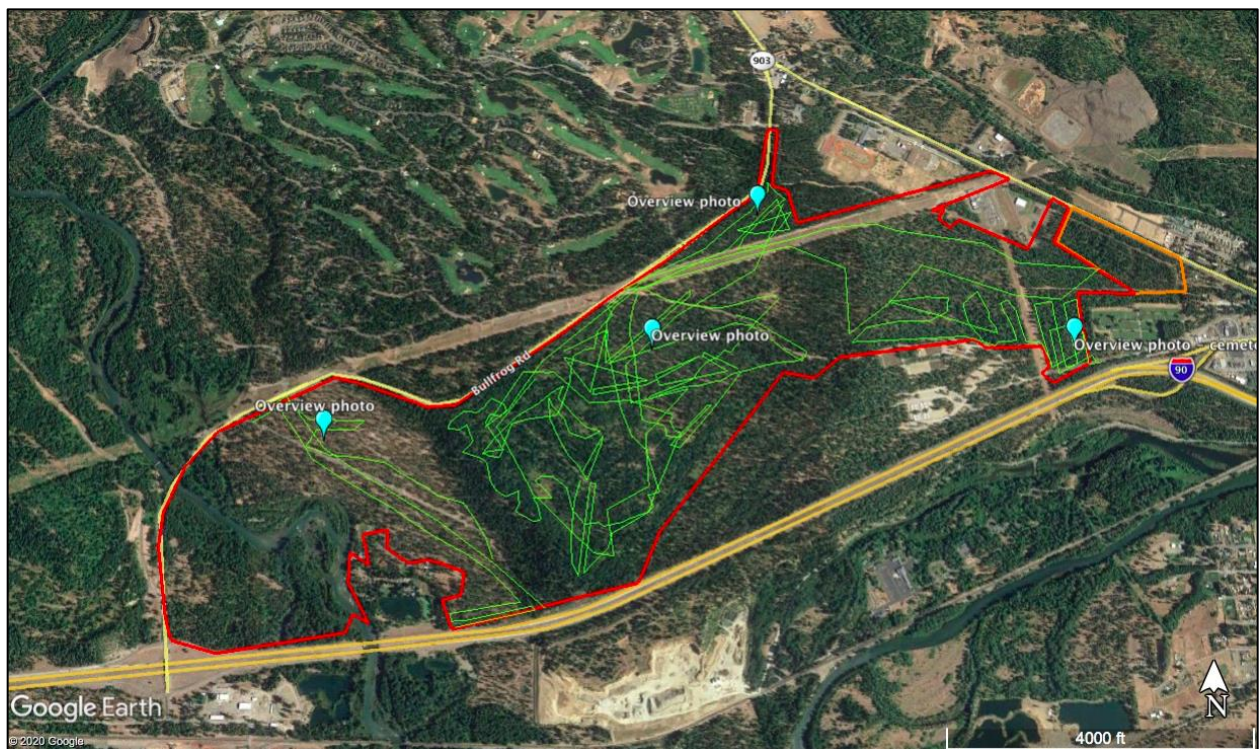


Figure 6. Satellite imagery annotated with the project location in red, approximate survey transects in green, and overview photo locations in blue.



Figure 7. Overview of project area as seen within the proposed cemetery expansion, view to the east.



Figure 8. Overview of project area as seen within the upper terrace, view to the southwest.



Figure 9. Overview of project area from the upper terrace demonstrating an example of a dirt road, view to the east.



Figure 10. Overview of project area from the lower terrace demonstrating an example of the horse obstacle course features, view to the east.

Archaeologists revisited previously recorded sites that were located within or near areas of proposed disturbances, with the goal of documenting any changes in site conditions since they were last inventoried. State of Washington Archaeological Site Inventory Form updates would be completed if any substantial changes were observed.

Site 45KT1227

This site was originally recorded as a sparse lithic scatter (Powell 1994). Subsequent visits to the site location were unable to relocate the lithic scatter, but did observe three additional artifacts (two flakes and one raw material fragment?) on the ground surface (Griffin and Churchill 1998a). The site boundary was expanded at that time and was determined eligible for the NRHP in 1999. The site was resurveyed and tested in 2009 (Ives and Gough 2010). No cultural materials or features were observed at that time. The site was recommended to be no longer eligible for the NRHP at that time. No evidence of the site was observed during the current investigation.

Site 45KT2092

This site was originally recorded as refuse scatter consisting of two isolated scatters and a large pile of rocks (Griffin and Churchill 1998a). A subsequent visit to the site relocated the rock pile, but saw no evidence of the historic domestic refuse dump (Ives and Gough 2010).

Archaeologists revisited the site during the current investigation. Approximately 20 vent hole and sanitary cans, 5 ceramics, and one window glass shard were observed (Figure 11). There was no evidence of the large rock pile noted in 1998 and 2010. This site is located in close proximity to a developed portion of a horse obstacle course and was likely altered to accommodate horse traffic. The archaeological site inventory form for this site was updated (Attachment C).



Figure 11. Representative photo of ceramic artifacts observed at 45KT2092.

Site 45KT2096

This site was originally recorded as a large historic refuse scatter consisting of nine clusters of refuse with sparse amounts of refuse between the clusters (Griffin and Churchill 1998a). Approximately 528 tinned cans, 77 glass fragments, and other miscellaneous debris were identified at that time. The site has changed considerably since then. Evidence of the site was observed in the current investigation; however the number of artifacts has greatly diminished through time. Approximately 100 tinned cans and 50 bricks were observed during this investigation (Figures 12 and 13). It is unknown whether artifacts have been buried by natural processes or removed by relic collectors.



Figure 12. Representative photo of a tinned can concentration observed at 45KT2096.



Figure 13. Representative photo of the brick concentration observed at 45KT2096.

Site 45KT2098

This site was originally recorded as an historic domestic refuse scatter. The site location as mapped was revisited (Griffin and Churchill 1998a). No evidence of the medium-sized refuse scatter was observed during this field investigation. Whether the site has been eradicated by land altering activities, buried by natural processes, or removed by relic collectors is unknown. The archaeological site inventory form for this site was updated (Attachment C).

Site 45KT2139

This site was originally recorded as a historic refuse scatter (Griffin and Churchill 1998a). Archaeologists visited the site in 2010 (Ives and Gough). The site was not relocated at that time. No evidence of the sparse historic refuse scatter was observed during the current investigation. Whether the site has been eradicated by land altering activities, buried by natural processes, or removed by relic collectors is unknown.

Site 45KT2141

This site originally consisted of discrete scatter of tin cans, glass fragments, and few ceramic shards (Griffin and Churchill 1998a). When the site was revisited in 2010 (Ives and Gough), archaeologists observed the previously recorded domestic scatter in addition to a scatter of oyster shell. They suggested the shell was most likely a modern deposit. Archaeologists revisited the site in 2019. The site was observed to be in the same condition as previously recorded (Figures 14 and 15).



Figure 14. Overview of 45KT2141, view to the south.



Figure 15. Representative photo of a Rainier beer can observed at 45KT2141.

45KT2146 and 45KT3331

This site was originally recorded as the Cle Elum Waterline Complex. The recorded waterline (45KT2146) spanned from the Cle Elum River to the town of Cle Elum (Griffin and Churchill 1998a). The section of the waterline within the currently proposed project has been revisited numerous times, most recently in 2009 (Ives and Gough 2010). Segments of the original wire wrapped wooden stave waterline, as well as the chlorination building (45KT3331) were observed and generally remain as previously described (Figures 16 and 17).



Figure 16. Representative photo of wire wrapped wooden piping observed at 45KT2146.



Figure 17. Overview of the chlorination building (45KT3331) associated with the Cle Elum waterline, view to the northwest.

In addition to the 47 monitored geotechnical explorations described above, archaeological subsurface investigations were achieved through the placement of 23 shovel probes (Figures 18 – 21; Attachment D). Shovel probes were placed in areas with proposed ground disturbance to supplement observations from archaeological monitoring of the geotechnical explorations. Data from archaeological monitoring was utilized to target locations with a higher likelihood of containing Holocene loess that could potentially have intact archaeological material. The number of shovel test probes is considered adequate based on multiple lines of evidence. There have been numerous prior investigations consisting of surveying and subsurface testing throughout the project location. Widespread surface glacial deposits were observed during monitoring of geotechnical exploration pits. Additionally, previously recorded precontact sites in the project vicinity are generally located on the lower terrace near the river which will not be developed and is within the proposal's designated open space.

Probes 1 – 4 were placed in the proposed Adventure and Municipal Center locations. Probes 5 – 16 were located on the upper terrace where the majority of ground disturbance is proposed for construction of an RV Resort and Manufactured Housing. Probes 17 – 20 were located in the proposed cemetery expansion. Probes 21 – 23 were placed in each of the proposed Public Trail Parks. Probes ranged in depth from 22 to 100 centimeters below the surface, with an average depth of 59.5 centimeters. Seven of the probes consisted of a soil profile that can be described as a stratum of duff and sandy loam topsoil, followed by a stratum of sandy loam loess atop Pleistocene glacial sediments. Holocene loess was not observed in the remaining sixteen probes. No precontact or historic-era materials or deposits were identified. The probes were backfilled immediately following documentation.

[figure redacted due to sensitive information]

Figure 18. Satellite image of project location in red, potential future commercial development in orange, previously recorded archaeological sites, and probe locations.



Figure 19. Overview of typical subsurface conditions as observed in probe 9.



Figure 20. Overview of typical subsurface conditions as observed in probe 14.



Figure 21. Overview of typical subsurface conditions as observed in probe 21.

4.0 Impacts of the Alternatives

4.1 2002 Cle Elum FEIS Impacts

FEIS Alternative 5 – Original Bullfrog Flats Master Site Plan

In the 2002 Cle Elum EIS study, potential impacts to historic and cultural resources are inexplicit and do not include specific sites that may potentially be impacted. Twenty-three cultural resources were identified within the proposed project. It was stated that the majority of the development was proposed for the upper two-thirds of the property with the lower third reserved for undeveloped open space and the majority of the previously recorded sites are located within the lower third of the project location. Impacts to individual sites were not determined, as the specific location of ground-disturbing activities and the sites were not specified. It was noted that construction could potentially impact undiscovered archaeological sites as well as previously recorded sites. Impacts could include disturbance from excavation, increased pedestrian and vehicular traffic, compaction of sediments associated with project staging areas, erosion, illegal collecting, and spiritual diminution of possible Traditional Cultural Properties. In addition, potential construction impacts to the Cle Elum Chlorination Building were considered to include destruction of the structure and/or an alteration to the property's setting (Cle Elum 2002).

4.2 2020 SEIS Impacts

The magnitude of impacts to cultural resources was considered less-than-significant or significant, as follows:

- Less-than-significant—Impacts were considered less-than-significant if they pose little to no risk, whether direct or indirect, to documented archaeological or historic resources or potentially eligible for listing on the NRHP and/or the WHR.
- Significant—Impacts were considered significant if they pose a risk, whether direct or indirect, to documented archaeological or historic resources eligible or potentially eligible for listing on the NRHP and/or the WHR.

SEIS Alternative 6 – Proposed 47° North Master Site Plan Amendment

A comprehensive analysis conducted in 2019 for the SEIS identified a number of potential impacts to cultural resources under the current proposal (SEIS Alt. 6 – Proposed 47° North Master Site Plan Amendment). Seven previously recorded sites were located within or near areas of proposed disturbance (45KT1227, 45KT2092, 45KT2096, 45KT2098, 45KT2139, 45KT2141, 45KT2146). Four of these previously recorded sites (45KT2092, 45KT2096, 45KT2141, 45KT2146) were relocated in 2019, and each of these has been determined not eligible for the NRHP. The current investigation did not identify any evidence to recommend these sites eligible for the NRHP. The remaining three sites (45KT1227, 45KT2098, 45KT2139) were not relocated during this investigation. Of these sites, only one (45KT1227) had been previously determined eligible for the NRHP. This site, originally recorded as a sparse lithic scatter, was thoroughly tested in 2010. At that time, no evidence was observed of the site and it was determined to no longer contain the properties necessary to remain eligible for listing on the NRHP. No evidence of the site was observed again during the current investigation and we concur with the eligibility recommendation made in 2010 (Ives and Gough 2010). The above-mentioned sites could

potentially be impacted or destroyed by proposed site development; however, due to the NRHP status, impacts to these sites would not be considered significant. Potential impacts to as-yet unknown cultural resources would be less under SEIS Alternative 6 than under FEIS Alternative 5 due to the decreased acreage proposed for development (353 acres versus 577 acres, respectively). However, of the 577 acres proposed in FEIS Alternative 5, 222 acres have been developed since 2002 (e.g., for the Horse Park, water treatment plant, and school expansion). The 25-acre potential future commercial area was not explored in the 2019 field investigation and may contain as-yet unknown cultural resources.

SEIS Alternative 5 (No Action Alternative) – Approved Bullfrog Flats Master Site Plan

Under the SEIS Alternative 5, although cultural resources could potentially be impacted or destroyed, these actions would not be considered significant because these sites have been determined not eligible for listing on the NRHP. Based on the results of the investigation for the 2020 SEIS, potential impacts to as-yet unknown cultural resources would be greater due to the larger acreage proposed for development under SEIS Alternative 5. However, some sites that had not been evaluated for listing on the NRHP when the 2002 EIS was prepared (45KT2146, 45KT3332, 45KT2141, 54KT2139, 45KT3331, 45KT2140, 45KT2092, 45KT1484, 45KT2099, 45KT2098, 45KT2096) have since been determined not eligible for listing on the NRHP. Impacts to such sites would not be considered significant. A number of recorded archaeological resources (45KT2093, 45KT2080, 45KT2081, 45KT2097, 45KT3343, 45KT2079) are located within the 175-acre reserve in the SEIS Alternative 5 plan. Since the 2002 EIS, development of the Horse Park has occurred in this area, and all of these sites have been determined not eligible for listing on the NRHP. Sites 45KT1019, 45KT1368, 45KT1376 remain eligible for listing on the NRHP but are not within areas of proposed ground disturbance. There was no evidence of the Yakama Trail that was considered to potentially be significant as a TCP.

5.0 Conclusions

The 2002 Cle Elum EIS identified 23 cultural resources within the project location. At that time, impacts to specific sites were not discussed. However, a number of mitigation measures were identified to reduce or eliminate potential impacts to cultural resources. These measures included; 1) subsurface testing in order to determine if significant cultural resources are present, 2) if reasonably possible, avoid all cultural resources and establish a 50-m buffer around cultural resources, 3) if avoidance of cultural resources is not possible, testing of the sites to determine eligibility for listing on the NRHP is recommended, and 4) an archaeological permit would be obtained from OAH (DAHP) before land is disturbed within known potentially significant sites.

In 2019, CRC completed background research, tribal communication, and field investigations, inclusive of archaeological monitoring of 47 geotechnical test trenches, pedestrian survey, and excavation of 23 shovel probes for the 2020 SEIS (Figure 22). Observed sediments were generally consistent with those mapped for the location, Holocene loess atop Pleistocene sediments. In many locations, the Holocene loess was not observed. The excavation of geotechnical test trenches provided a significant coverage over the areas anticipated to be disturbed based on project conceptual design. Shovel probes were excavated in locations that are anticipated to be disturbed that were not covered by the test trenches and in locations that would have a greater likelihood of containing Holocene sediments based on observations during

monitoring. The geotechnical test trenches demonstrated pockets of higher probability areas within the middle section of the project boundary, on the western half of the upper terrace. Some of the trenches and shovel test probes in this area contained Holocene sediments while others did not. Because of this, many of the shovel probes were concentrated in this area.

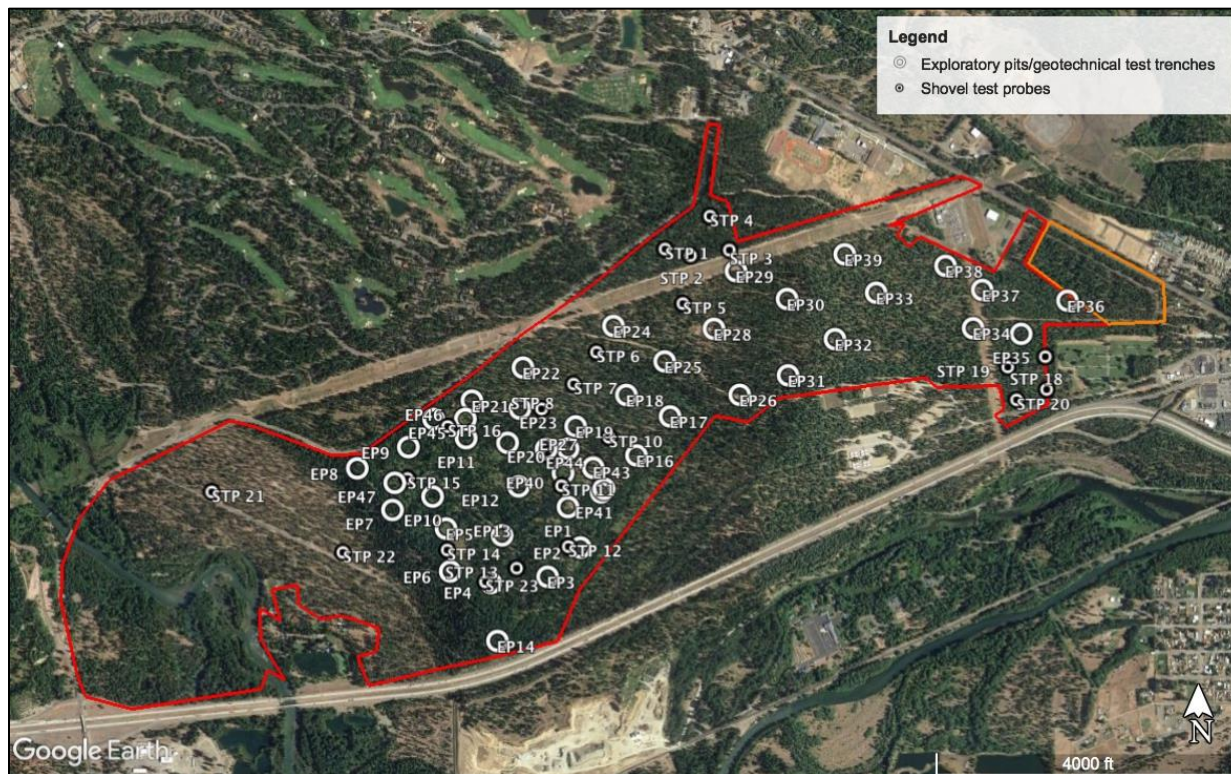


Figure 22. Satellite image of project location in red, potential future commercial development in orange, geotechnical test trench locations, and probe locations.

CRC's investigations resulted in the identification of 15 previously recorded precontact or historic-era archaeological sites within the project location (Table 4, Figures 23 – 37). Seven of these sites are located in or near proposed ground disturbances. One of these sites was previously determined eligible for the National Register, however no evidence of the site remains. Field investigations did not identify any as yet unrecorded historic-era or precontact cultural resources within the project, nor was any evidence found to suggest a high potential for as-yet unrecorded archaeological deposits to be contained within the proposed development areas. No significant impacts on cultural resources have been identified with development of the SEIS alternatives.

Table 4. Summary of archaeological sites and proposed project plans.

| Site Number | Site Type, Contents, and Dimensions | Proposed Action in Site Location |
|-------------|--|---|
| 45KT1019 | Precontact lithic scatter consisting of one lithic flake. | None; located within river corridor open space. |
| 45KT1227 | Precontact lithic material consisting of a total of 6 lithic flakes and pieces of raw material observed in 1994 and 1998 (three pieces each time). No artifacts were observed in 2010 or 2019 site visits. | Public trail park. |

| Site Number | Site Type, Contents, and Dimensions | Proposed Action in Site Location |
|-------------|---|---|
| 45KT1368 | Precontact camp consisting of lithic artifacts, features, possible house structures, and human remains. Measures 50 m (N/S) by 30 m (E/W). | None; located within river corridor open space. |
| 45KT1376 | Precontact camp consisting of a total of 10 pieces of lithic material (biface fragment, seven pieces of debitage, a uniface, and a battered cobble [pestle]). Measures 90 m by 130 m. | None; located within managed open space. |
| 45KT1484 | Precontact isolate consisting of a single flake fragment. | None; located within managed open space. |
| 45KT2092 | Historic refuse scatter consisting of over 100 tinned cans, over eight ceramic fragments, six glass fragments, and a possible bumper fragment. Measures 54 ft by 78 ft. | Public trail park. |
| 45KT2096 | Historic debris scatter consisting of nine clusters of historic refuse totally approximately 528 tinned cans, 77 glass jar fragments, and an assortment of miscellaneous debris. Measures 1200 ft by 1200 ft. | Municipal rec center. |
| 45KT2098 | Historic refuse scatter consisting of 29 tinned cans, and few glass and ceramic artifacts. Measures 65 ft by 81 ft. | Affordable housing development |
| 45KT2099 | Historic refuse scatter consisting of seven tinned cans. Measures 13 ft by 16 ft. | Manufactured housing. |
| 45KT2139 | Historic refuse scatter consisting of 26 tinned cans. Measures 21 ft by 24 ft. | Public trail park. |
| 45KT2140 | Historic refuse scatter consisting of 69 tinned cans, two teapots, and car body parts. Measures 262 ft by 131 ft. | None; located within managed open space. |
| 45KT2141 | Historic refuse scatter consisting of seven tinned cans, 24 glass fragments, and over seven ceramic fragments. Measures 90 ft by 75 ft. | Public trail park. |
| 45KT2146 | Portion of the Cle Elum Waterline. The waterline measures over 7 miles, .90 mile of which is within the proposed project. | Public trail park. |
| 45KT3331 | Historic structure/waterline chlorinating building. Measures 20 ft by 12 ft. | None; located within managed open space. |
| 45KT3332 | Historic debris scatter consisting of six tinned cans and two glass bottles. Measures 25 ft by 25 ft. | None; located within river corridor open space. |

[figure redacted due to sensitive information]

Figure 23. Satellite image of 45KT1019 within project location.

[figure redacted due to sensitive information]

Figure 24. Satellite image of 45KT1227 within project location.

[figure redacted due to sensitive information]

Figure 25. Satellite image of 45KT1368 within project location.

[figure redacted due to sensitive information]

Figure 26. Satellite image of 45KT1376 within project location.

[figure redacted due to sensitive information]

Figure 27. Satellite image of 45KT1484 within project location.

[figure redacted due to sensitive information]

Figure 28. Satellite image of 45KT2092 within project location.

[figure redacted due to sensitive information]

Figure 29. Satellite image of 45KT2096 within project location.

[figure redacted due to sensitive information]

Figure 30. Satellite image of 45KT2098 within project location.

[figure redacted due to sensitive information]

Figure 31. Satellite image of 45KT2099 within project location.

[figure redacted due to sensitive information]

Figure 32. Satellite image of 45KT2139 within project location.

[figure redacted due to sensitive information]

Figure 33. Satellite image of 45KT2140 within project location.

[figure redacted due to sensitive information]

Figure 34. Satellite image of 45KT2141 within project location.

[figure redacted due to sensitive information]

Figure 35. Satellite image of 45KT2146 within project location.

[figure redacted due to sensitive information]

Figure 36. Satellite image of 45KT3331 within project location.

[figure redacted due to sensitive information]

Figure 37. Satellite image of 45KT3332 within project location.

6.0 Mitigation Measures

Although no significant impacts on cultural resources have been identified with development of the SEIS alternatives, the following mitigation measures should be implemented in order to reduce or eliminate potential impacts to significant cultural resources:

- Consultation with DAHP and Confederated Tribes and Bands of the Yakama Nation (Yakama Nation) would continue.
- Compliance with all state regulations (e.g., RCW 27.44, RCW 27.53, SEPA) related to cultural resources would continue. This includes following state law regarding the need for any disturbance to archaeological sites with objects that pre-date the historic era (i.e. precontact archaeological sites) or to historic archaeological resources that are eligible for or listed in the NRHP to be conducted under an Archaeological Site Alteration Permit from DAHP. Alterations to a site can include adding fill, building on, removing trees, using heavy equipment on, compacting, or other activities that would change or potentially impact the site, as well as archaeological excavations.
- An inadvertent discovery plan would be adopted for the project and made available onsite during construction.
- Onsite monitoring by a professional archaeologist or cultural resources specialist will take place during all ground disturbing activities with potential to intersect Holocene

deposits, which were observed up to 8.5 feet below surface, including clearing, grubbing, grading, and construction excavations.

- Construction personnel would be trained on the identification of archaeological resources.
- When the 25-acre property contemplated for future commercial use is proposed to be developed, a field investigation of the property should be conducted.

Should any potentially significant archaeological sites be discovered and it is not possible to avoid them, impacts would be generated. However, it is expected that these impacts could potentially be minimized through development and implementation of additional mitigation measures appropriate to the nature and extent of discovered sites. In the event that ground disturbing or other activities do result in the inadvertent discovery of archaeological deposits, work should be halted in the immediate area and contact made with DAHP. Work should be halted until such time as further investigation and appropriate consultation is concluded. In the unlikely event of the inadvertent discovery of human remains, work should be immediately halted in the area, the discovery covered and secured against further disturbance, and contact effected with law enforcement personnel, consistent with the provisions set forth in RCW 27.44.055 and RCW 68.60.055. Attachment E outlines protocols for inadvertent discoveries in detail.

7.0 Limitations of this Assessment

No cultural resources study can wholly eliminate uncertainty regarding the potential for prehistoric sites, historic properties or traditional cultural properties to be associated with a project. The information presented in this report is based on professional opinions derived from our analysis and interpretation of available documents, records, literature, and information identified in this report, and on our field investigation and observations as described herein. Conclusions and recommendations presented apply to project conditions existing at the time of our study and those reasonably foreseeable. The data, conclusions, and interpretations in this report should not be construed as a warranty of subsurface conditions described in this report. They cannot necessarily apply to site changes of which CRC is not aware and has not had the opportunity to evaluate.

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Attachment A. Project Correspondence Between CRC and Yakama Nation.



November 13, 2019

Confederated Tribes and Bands of the Yakama Nation
Mr. Johnson Meninick
PO Box 151
Toppenish, WA 98948

Re: Cultural Resources Assessment for the 47° North Project, Cle Elum, Kittitas County, WA

Dear Johnson:

I am writing to inform you of a cultural resources assessment for the above referenced project and to seek additional information about the project area the Tribe may have that is not readily available through other written sources. This letter is on a technical staff-to-technical staff basis to inquire about project-related cultural information or concerns. It is not intended as formal government-to-government consultation to be initiated by the appropriate regulatory agency.

The approximately 824-acre 47° North project is located in the western portion of the City of Cle Elum. In 2002, the Cle Elum UGA EIS was issued. Subsequently, the 47° North Master Site Plan was approved, and Subarea Plan, Zoning, and Development Agreement adopted. Sun Communities is proposing revisions to the 47° North Master Site Plan, including changes in the type but not the number of residential units, and modifications to the employment uses, open space, and access locations. Some of these revisions constitute Major Modifications to the approved Master Plan. As a result, the City of Cle Elum has determined that a SEIS is required, supplementing the 2002 Cle Elum UGA EIS.

We are in the process of reviewing available information. Background research will include a site files search at the Washington State Department of Archaeology and Historic Preservation, review of previously recorded cultural resource reports, and review of pertinent published literature and ethnographies. Results of our investigations will be presented in a technical memo.

We are aware that not all information is contained within published sources. Should the Tribe have additional information to support our assessment, we would very much like to include it in our study. Please contact me at sonja@crcwa.com or 360-395-8879 should you wish to provide any comments. I appreciate your assistance in this matter and look forward to hearing from you.

Sincerely,



Sonja Kleinschmidt
Projects Manager

CULTURAL RESOURCE CONSULTANTS, LLC. 1416 NW 46TH ST, STE 105 PMB346, SEATTLE, WA 98107
PHONE 206.855.9020 - sonja@crcwa.com

Attachment B. Archaeological Monitoring Logs.

DAILY ARCHAEOLOGICAL MONITORING LOG 47°N PROJECT, CLE ELUM, WA GEOTECH TESTING ARCHAEOLOGICAL MONITORING CRC PROJECT NO. 1910A-1

TIME AND DATE: October 21, 2019

MONITOR: [1] [SEP] Nicole Clennon

PROJECT COMPONENT MONITORED: Excavation of EP1, EP2, EP3, EP4, EP5, EP6, EP7, EP8, EP9, and EP10.

GENERAL FIELD CONDITIONS: Approximately 45°, rainy, and overcast. Surface conditions consisted primarily of a dense forest floor with few dirt trails and roads .

ARCHAEOLOGY OBSERVED: None.

NARRATIVE: The archaeologist arrived on site along with two geologists from Associated Earth Sciences Incorporated, Tim Peter and Tyler Gilsdorf, and one excavator. Monitoring components for the day included ten trench locations. All trench locations were well away from previously recorded eligible archaeological sites. Prior to subsurface testing the archaeologist examined the surface and surrounding vicinity for archaeological material; none were observed.

Exploratory pit excavations consisted of the extraction of sediment with a backhoe in order to determine the subsurface conditions of the project location.

No archaeological or historical materials were observed. No shell, charcoal, fire-cracked rock, woody debris nor any other indications that would indicate the presence of buried archaeological deposits or materials were observed from the geotechnical samples.

FIGURES



Figure 1. Overview of the typical conditions in geotechnical trench location as observed in EP-2, view to the northeast.



Figure 2. Overview of the typical conditions in geotechnical trench location as observed in EP-4, view to the north.

Table 1. Depositional context observed in EP-1 (UTM Zone 10 652310 m E, 5228400 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-3.5 | Yellow brown silt (loess) |
| 3.5-14 | Yellow brown unsorted glacial till |

Table 2. Depositional context observed in EP-2 (UTM Zone 10 652363 m E, 5228241 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-13 | Yellow brown unsorted glacial till |

Table 3. Depositional context observed in EP-3 (UTM Zone 10 652236 m E, 5228123 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-2.5 | Yellow brown silt (loess) |
| 3.5-14 | Yellow brown unsorted glacial till |

Table 4. Depositional context observed in EP-4 (UTM Zone 10 652012 m E, 5228092 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-5.5 | Yellow brown silt (loess) |
| 5.5-13 | Yellow brown glacial outwash |

Table 5. Depositional context observed in EP-5 (UTM Zone 10 651830 m E, 5228302 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|--|------------------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-6 | Yellow brown silt (loess) |
| 6-13 | Yellow brown unsorted glacial till |

Table 6. Depositional context observed in EP-6 (UTM Zone 10 651850 m E, 5228133 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|--|---------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-4 | Yellow brown silt (loess) |
| 4-14 | Yellow brown glacial till |

Table 7. Depositional context observed in EP-7 (UTM Zone 10 651615 m E, 5228369 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|--|---------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-8.5 | Yellow brown silt (loess) |
| 8.5-13 | Yellow brown glacial till |

Table 8. Depositional context observed in EP-8 (UTM Zone 10 651470 m E, 5228529 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|--|------------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-5 | Yellow brown silt (loess) |
| 5-12 | Yellow brown glacial outwash |

Table 9. Depositional context observed in EP-9 (UTM Zone 10 651674 m E, 5228619 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|--|---------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-5.5 | Yellow brown silt (loess) |
| 5.5-11 | Yellow brown glacial till |

Table 10. Depositional context observed in EP-10 (UTM Zone 10 651774 m E, 5228427 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|--|---------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-7 | Yellow brown silt (loess) |
| 7-10 | Yellow brown glacial till |



Figure 3. Representative photograph of the subsurface conditions observed in EP-2.



Figure 4. Representative photograph of the subsurface conditions observed in EP-4.

DAILY ARCHAEOLOGICAL MONITORING LOG
47°N PROJECT, CLE ELUM, WA
GEOTECH TESTING ARCHAEOLOGICAL MONITORING
CRC PROJECT NO. 1910A-1

TIME AND DATE: October 22, 2019

MONITOR: Nicole Clennon

PROJECT COMPONENT MONITORED: Excavation of EP11, EP12, EP13, EP14, EP15, EP16, EP17, EP18, EP19, EP20, EP21, EP22, EP23, EP24, EP25, EP26, EP27, and EP28.

GENERAL FIELD CONDITIONS: Approximately 55° and sunny. Surface conditions consisted primarily of a dense forest floor with few dirt trails and roads .

ARCHAEOLOGY OBSERVED: None.

NARRATIVE: The archaeologist arrived on site along with two geologists from Associated Earth Sciences Incorporated, Tim Peter and Tyler Gilsdorf, and two excavators. Monitoring components for the day included eighteen trench locations. All trench locations were well away from previously recorded eligible archaeological sites. Prior to subsurface testing the archaeologist examined the surface and surrounding vicinity for archaeological material; none were observed.

Exploratory pit excavations consisted of the extraction of sediment with a backhoe in order to determine the subsurface conditions of the project location.

No archaeological or historical materials were observed. No shell, charcoal, fire-cracked rock, woody debris nor any other indications that would indicate the presence of buried archaeological deposits or materials were observed from the geotechnical samples.

FIGURES



Figure 1. Overview of the typical conditions at geotechnical trench location EP-14, view to the northeast.



Figure 2. Overview of the typical conditions at geotechnical trench location EP-28, view to the south.

Table 1. Depositional context observed in EP-11 (UTM Zone 10 651901 m E, 5228660 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-2 | Yellow brown silt (loess) |
| 2-12 | Yellow brown unsorted glacial till |

Table 2. Depositional context observed in EP-12 (UTM Zone 10 652113 m E, 5228476 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|---------------------------|
| 0-2.5 | Brown loam (topsoil) |
| 2.5-16.5 | Yellow brown glacial till |

Table 3. Depositional context observed in EP-13 (UTM Zone 10 652052 m E, 5228281 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------------|
| 0-1.5 | Brown loam (topsoil) |
| 1-9 | Yellow brown glacial outwash |
| 9-10 | Yellow brown unsorted glacial till |
| 10-15 | Glacial outwash |

Table 4. Depositional context observed in EP-14 (UTM Zone 10 652044 m E, 5227864 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|---------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-3 | Yellow brown silt (loess) |
| 3-8 | Yellow brown glacial till |

Table 5. Depositional context observed in EP-15 (UTM Zone 10 652439 m E, 5228460 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|----------------------|
| 0-2 | Brown loam (topsoil) |
| 2-3 | Bedrock |

Table 6. Depositional context observed in EP-16 (UTM Zone 10 652575 m E, 5228609 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-1.5 | Brown loam (topsoil) |
| 1.5-14 | Yellow brown glacial outwash |

Table 7. Depositional context observed in EP-17 (UTM Zone 10 652704 m E, 5228766 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|---------------------------|
| 0-1.5 | Brown loam (topsoil) |
| 1.5-4 | Yellow brown silt (loess) |
| 4-15 | Glacial outwash |

Table 8. Depositional context observed in EP-18 (UTM Zone 10 652529 m E, 5228846 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-1.5 | Brown loam (topsoil) |
| 1.5-4 | Yellow brown silt (loess) |
| 4-15 | Yellow brown glacial outwash |

Table 9. Depositional context observed in EP-19 (UTM Zone 10 652332 m E, 5228717 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-1 | Brown loam (topsoil) |
| 1.5-4 | Yellow brown silt (loess) |
| 4-15 | Yellow brown glacial outwash |

Table 10. Depositional context observed in EP-20 (UTM Zone 10 652065 m E, 5228646 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|---------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-7 | Yellow brown silt (loess) |
| 7-10 | Yellow brown glacial till |

Table 11. Depositional context observed in EP-21 (UTM Zone 10 651920 m E, 5228808 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|---------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-2 | Yellow brown silt (loess) |
| 2-15 | Glacial outwash |

Table 12. Depositional context observed in EP-22 (UTM Zone 10 652118 m E, 5228943 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-2 | Brown loam (topsoil) |
| 2-15 | Yellow brown glacial outwash |

Table 13. Depositional context observed in EP-23 (UTM Zone 10 652110 m E, 5228781 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-3 | Yellow brown silt (loess) |
| 3-14 | Yellow brown glacial outwash |

Table 14. Depositional context observed in EP-24 (UTM Zone 10 652471m E, 5229116 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-1.5 | Brown loam (topsoil) |
| 1.5-4 | Yellow brown silt (loess) |
| 4-14 | Yellow brown glacial outwash |

Table 15. Depositional context observed in EP-25 (UTM Zone 10 652677 m E, 5228982 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|----------------------|
| 0-2 | Brown loam (topsoil) |
| 2-14 | Glacial outwash |

Table 16. Depositional context observed in EP-26 (UTM Zone 10 652978 m E, 5228858 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-2 | Brown loam (topsoil) |
| 2-3 | Yellow brown silt (loess) |
| 3-15 | Yellow brown glacial outwash |

Table 17. Depositional context observed in EP-27 (UTM Zone 10 652304 m E, 5228629 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-3 | Yellow brown silt (loess) |
| 3-14 | Yellow brown glacial outwash |

Table 18. Depositional context observed in EP-28 (UTM Zone 10 652868 m E, 5229115 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|---------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-2 | Yellow brown silt (loess) |
| 2-14.5 | Yellow brown glacial till |



Figure 3. Representative photograph of the subsurface conditions observed in EP-14.



Figure 4. Representative photograph of the subsurface conditions observed in EP-28.

DAILY ARCHAEOLOGICAL MONITORING LOG
47°N PROJECT, CLE ELUM, WA
GEOTECH TESTING ARCHAEOLOGICAL MONITORING
CRC PROJECT NO. 1910A-1

TIME AND DATE: October 23, 2019

MONITOR: Nicole Clennon

PROJECT COMPONENT MONITORED: Excavation of EP29, EP30, EP31, EP32, EP33, EP34, EP35, EP36, EP37, EP38, and EP39.

GENERAL FIELD CONDITIONS: Approximately 32° and sunny. Surface conditions consisted primarily of a dense forest floor with few dirt trails and roads .

ARCHAEOLOGY OBSERVED: None.

NARRATIVE: The archaeologist arrived on site along with two geologists from Associated Earth Sciences Incorporated, Tim Peter and Tyler Gilsdorf, and one excavator. Monitoring components for the day included eleven trench locations. All trench locations were well away from previously recorded eligible archaeological sites. Prior to subsurface testing the archaeologist examined the surface and surrounding vicinity for archaeological material; none were observed.

Exploratory pit excavations consisted of the extraction of sediment with a backhoe in order to determine the subsurface conditions of the project location.

No archaeological or historical materials were observed. No shell, charcoal, fire-cracked rock, woody debris nor any other indications that would indicate the presence of buried archaeological deposits or materials were observed from the geotechnical samples.



Figure 1. Overview of the typical conditions in geotechnical boring location EP-33, view to the north.



Figure 2. Overview of the typical conditions at geotechnical trench location EP-39, view to the southeast.

Table 1. Depositional context observed in EP-29 (UTM Zone 10 652949 m E, 5229344 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-3.5 | Yellow brown silt (loess) |
| 3.5-14.5 | Yellow brown silty glacial outwash |

Table 2. Depositional context observed in EP-30 (UTM Zone 10 653154 m E, 5229240 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|---------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-2 | Yellow brown silt (loess) |
| 2-15 | Yellow brown glacial till |

Table 3. Depositional context observed in EP-31 (UTM Zone 10 653167m E, 5228940 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-2 | Brown loam (topsoil) |
| 2-16 | Yellow brown glacial outwash |

Table 4. Depositional context observed in EP-32 (UTM Zone 10 653348 m E, 5229087 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-2.5 | Yellow brown silt (loess) |
| 2.5-14 | Yellow brown glacial outwash |

Table 5. Depositional context observed in EP-33 (UTM Zone 10 653507 m E, 5229274. m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|--------------------------------|
| 0-1 | Gray brown silt loam (topsoil) |
| 1-2 | Brown silt loam (topsoil) |
| 2-16 | Glacial outwash |

Table 6. Depositional context observed in EP-34 (UTM Zone 10 653896 m E, 5229145 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-1.5 | Brown loam (topsoil) |
| 1.5-16 | Yellow brown glacial outwash |

Table 7. Depositional context observed in EP-35 (UTM Zone 10 654090 m E, 5229128 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|----------------------|
| 0-1 | Brown loam (topsoil) |
| 1-17 | Glacial outwash |

Table 8. Depositional context observed in EP-36 (UTM Zone 10 654270 m E, 5229264 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-1.5 | Brown loam (topsoil) |
| 1.5-15 | Yellow brown glacial outwash |

Table 9. Depositional context observed in EP-37 (UTM Zone 10 653929 m E, 5229297 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-1.5 | Brown loam (topsoil) |
| 1.5-15 | Yellow brown glacial outwash |

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-3 | Yellow brown silt (loess) |
| 3-13 | Yellow brown glacial outwash |

Table 10. Depositional context observed in EP-38 (UTM Zone 10 653780 m E, 5229388 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-14 | Yellow brown glacial outwash |

Table 11. Depositional context observed in EP-39 (UTM Zone 10 653378 m E, 5229422 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-2 | Brown loam (topsoil) |
| 2-15 | Yellow brown glacial outwash |



Figure 3. Representative photograph of the subsurface conditions observed in EP-33.



Figure 4. Representative photograph of the subsurface conditions observed in EP-39.

DAILY ARCHAEOLOGICAL MONITORING LOG
47°N PROJECT, CLE ELUM, WA
GEOTECH TESTING ARCHAEOLOGICAL MONITORING
CRC PROJECT NO. 1910A-1

TIME AND DATE: October 24, 2019

MONITOR: Nicole Clennon

PROJECT COMPONENT MONITORED: Excavation of EP40, EP41, EP42, EP43, EP44, EP45, EP46, and EP47.

GENERAL FIELD CONDITIONS: The temperature was between 34 and 50 °F and sunny. Surface conditions consisted primarily of a dense forest floor with few dirt trails and roads .

ARCHAEOLOGY OBSERVED: None.

NARRATIVE: The archaeologist arrived on site along with two geologists from Associated Earth Sciences Incorporated, Tim Peter and Tyler Gilsdorf, and one excavator. Monitoring components for the day included eight test trenches. All trench locations were well away from previously recorded eligible archaeological sites. Prior to subsurface testing the archaeologist examined the surface and surrounding vicinity for archaeological material; none were observed.

Exploratory pit excavations consisted of the extraction of sediment with a backhoe in order to determine the subsurface conditions of the project location.

No archaeological or historical materials were observed. No shell, charcoal, fire-cracked rock, woody debris nor any other indications that would indicate the presence of buried archaeological deposits or materials were observed from the geotechnical samples.



Figure 1. Overview of the typical conditions at geotechnical trench location EP-45, view to the southwest.



Figure 2. Overview of the typical conditions at geotechnical trench location EP-47, view to the west.

Table 1. Depositional context observed in EP-40 (UTM Zone 10 652287 m E, 5228533 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|---------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-4 | Yellow brown silt (loess) |
| 4-12.5 | Yellow brown glacial till |

Table 2. Depositional context observed in EP-41 (UTM Zone 10 652450 m E, 5228475 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|---------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-6 | Yellow brown silt (loess) |
| 6-15 | Yellow brown glacial till |

Table 3. Depositional context observed in EP-42 (UTM Zone 10 652405 m E, 5228556 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|---------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-2 | Yellow brown silt (loess) |
| 2-14 | Yellow brown glacial till |

Table 4. Depositional context observed in EP-43 (UTM Zone 10 652405 m E, 5228560 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-2 | Yellow brown silt (loess) |
| 2-14 | Yellow brown glacial outwash |

Table 5. Depositional context observed in EP-44 (UTM Zone 10 652218 m E, 5228626. m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|---------------------------|
| 0-1.5 | Brown silt loam (topsoil) |
| 1.5-15 | Glacial till |

Table 6. Depositional context observed in EP-45 (UTM Zone 10 651896 m E, 5228735 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-4 | Yellow brown silt (loess) |
| 4-15.5 | Yellow brown glacial outwash |

Table 7. Depositional context observed in EP-46 (UTM Zone 10 651771 m E, 5228732 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|---------------------------|
| 0-1 | Brown loam (topsoil) |
| 1-3.5 | Yellow brown silt (loess) |
| 3.5-15 | Glacial outwash |

Table 8. Depositional context observed in EP-47 (UTM Zone 10 651623 m E, 5228477 m N)

| Depth below surface of core sample extracted (feet) | Observed sediments |
|---|------------------------------|
| 0-1.5 | Brown loam (topsoil) |
| 1.5-2.5 | Yellow brown silt (loess) |
| 2.5-13 | Yellow brown glacial outwash |



Figure 3. Representative photograph of the subsurface conditions observed in EP-45.



Figure 4. Representative photograph of the subsurface conditions observed in EP-47.

**Attachment C. State of Washington Archaeological Site Inventory Form
Updates, 45KT2092 and 45KT2098.**

[redacted due to sensitive information]

Attachment D. Archaeological Shovel Probe Investigations.

| Probe # | Location (WGS84 UTM Zone 10, +/- 3 meters) | Stratigraphic Description (depths are centimeters below surface [cmbs]) | Cultural Materials Found |
|---------|--|--|--------------------------|
| 1 | 652670 m E, 5229429 m N | 0-15: Duff and dark brown sandy loam with ~30% gravels and pebbles (Topsoil); 15-44: Dark red-brown silty, sandy, loam with gravels, pebbles, and cobbles increasing with depth, up to 50% (Pleistocene sediments). Terminated in Pleistocene sediments. | None. |
| 2 | 652771 m E, 5229406 m N | 0-8: 0-15: Duff and dark brown sandy loam with ~30% gravels and pebbles (Topsoil); 8-75: Dark red-brown silty, sandy, loam with ~15-40% gravels, pebbles, and cobbles with increasing with depth (Pleistocene sediments). Terminated on cobble obstruction in Pleistocene sediments. | None. |
| 3 | 652924 m E, 5229432 m N | 0-10: Duff and dark brown sandy loam with ~20% gravels and pebbles (Topsoil); 10-68: Dark red-brown silty, sandy, loam with gravels, pebbles, and cobbles increasing with depth, up to 50% (Pleistocene sediments). Terminated in Pleistocene sediments. | None. |
| 4 | 652844 m E, 5229563 m N | 0-11: Duff and dark brown sandy loam (Topsoil); 11-69: Dark red-brown silty, sandy, loam with ~20% gravels, pebbles, and cobbles (Pleistocene sediments). Terminated at rock obstruction in Pleistocene sediments. | None. |
| 5 | 652746 m E, 5229217m N | 0-10: Duff and dark brown sandy loam with ~20% gravels and pebbles (Topsoil); 10-75: Dark red-brown silty, sandy, loam with gravels and pebbles increasing with depth, up to 85% (Pleistocene sediments). Terminated in Pleistocene sediments. | None. |
| 6 | 652410 m E, 5229018 m N | 0-5: Duff and dark brown sandy loam (Topsoil); 5-35: Orange-brown sandy loam with ~75% gravels, pebbles, and cobbles (Pleistocene sediments). Terminated at rock and root obstruction in Pleistocene sediments. | None. |
| 7 | 652323 m E, 5228890 m N | 0-20: Duff and dark brown sandy loam with ~15% gravels and pebbles (Topsoil); 20-50: Red-brown silty, sandy, loam with gravels and pebbles increasing with depth, up to 80% (Pleistocene sediments). Terminated in Pleistocene sediments. | None. |
| 8 | 652199 m E, 5228789 m N | 0-8: Duff and brown sandy loam (Topsoil); 8-40: Yellow brown sandy loam with up to 20% gravels and pebbles (Holocene loess); 40-60: Yellow brown sandy loam with 40% gravels, pebbles, and many cobbles (Pleistocene sediments). Terminated in Pleistocene sediments. | None. |
| 9 | 652227 m E, 5228611 m N | 0-3: Duff 3-22: Dark brown sandy loam with ~80% gravels, pebbles, and cobbles (Pleistocene sediments). Terminated at rock obstruction in Pleistocene sediments. | None. |
| 10 | 652468 m E, 5228684 m N | 0-5: Duff and brown sandy loam (Topsoil); 5-35: Yellow brown sandy loam with ~ 10% gravels and pebbles (Holocene loess); 35-55: Compact yellow brown sandy loam with 25% gravels, pebbles, and cobbles (Glacial till). Terminated in Pleistocene sediments. | None. |

| Probe # | Location (WGS84 UTM Zone 10, +/- 3 meters) | Stratigraphic Description (depths are centimeters below surface [cmbs]) | Cultural Materials Found |
|---------|--|--|--------------------------|
| 11 | 652286 m E, 5228489 m N | 0-11: Duff and dark brown sandy loam (Topsoil) 11-32: Dark yellow brown sandy loam with ~60% gravels, pebbles, and cobbles (primarily gravels) (Pleistocene sediments). Terminated at rock obstruction in Pleistocene sediments. | None. |
| 12 | 652319 m E, 5228251 m N | 0-5: Duff and brown sandy loam (Topsoil); 5-35: Yellow brown sandy loam with ~ 10% gravels and pebbles (Holocene loess); 35-52: Compact yellow brown sandy loam with 40% gravels, pebbles, and cobbles (Glacial till). Terminated in Pleistocene sediments. | None. |
| 13 | 652116 m E, 5228159 m N | 0-12: Duff and dark brown sandy loam (Topsoil) 12-67: Yellow brown sandy loam with 20-50% gravels and pebbles (Pleistocene sediments). Terminated in Pleistocene sediments. | None. |
| 14 | 651840 m E, 5228224 m N | 0-5: Duff and brown sandy loam (Topsoil); 5-60: Yellow brown sandy loam with ~10% gravels and pebbles (Holocene loess); 60-80: Compact yellow brown sandy loam with 40% gravels and pebbles (Glacial till). Terminated in Pleistocene sediments. | None. |
| 15 | 651676 m E, 5228501 m N | 0-15: Duff and brown sandy loam (Topsoil); 15-100: Yellow brown sandy loam with 10-15% gravels and pebbles (Holocene loess). Terminated at extent of shovel. | None. |
| 16 | 651831 m E, 5228710 m N | 0-10: Duff and brown sandy loam (Topsoil); 10-60: Yellow brown sandy loam with ~10% gravels and pebbles (Holocene loess); 60-80: Compact yellow brown sandy loam with 50% gravels, pebbles, and cobbles (Glacial till). Terminated in Pleistocene sediments. | None. |
| 17 | 654204 m E, 5228917 m N | 0-15: Duff and dark brown sandy loam (Topsoil) 15-68: Compact yellow brown sandy loam with 30-80% gravels and pebbles increasing with depth (Pleistocene sediments). Terminated in Pleistocene sediments. | None. |
| 18 | 654195 m E, 5229047 m N | 0-8: Duff and brown sandy loam (Topsoil); 8-20: Yellow brown sandy loam with 10-30% gravels and pebbles (Holocene loess); 20-40: Yellow brown sandy loam with 30-80% gravels, pebbles, and cobbles (Glacial till). Root obstruction starting at 35 cmbs. Terminated in Pleistocene sediments. | None. |
| 19 | 654046 m E, 5229002 m N | 0-15: Duff and dark brown sandy loam (Topsoil) 15-68: Compact yellow brown sandy loam with 30-50% gravels and pebbles increasing with depth (Pleistocene sediments). Terminated in Pleistocene sediments. | None. |
| 20 | 654085 m E, 5228873 m N | 0-10: Duff and brown sandy loam (Topsoil); 10-55: Yellow brown sandy loam with 15-30% gravels and pebbles (Pleistocene sediments). Terminated at large root obstruction. | None. |
| 21 | 650890.00 m E, 5228425.00 m N | 0-6: Duff and dark brown sandy loam (Topsoil) 6-48: Compact yellow brown sandy loam with 80% gravels and pebbles (Pleistocene sediments). Terminated at rock obstruction in Pleistocene sediments. | None. |

| Probe # | Location (WGS84 UTM Zone 10, +/- 3 meters) | Stratigraphic Description (depths are centimeters below surface [cmbs]) | Cultural Materials Found |
|----------------|---|---|---------------------------------|
| 22 | 651418 m E, 5228198 m N | 0-8: Duff and dark brown sandy loam (Topsoil) 8-65: Yellow brown sandy loam with 50-80% gravels, pebbles, and cobbles increasing with depth (Pleistocene sediments). Terminated at cobble obstruction in Pleistocene sediments. | None. |
| 23 | 651994 m E, 5228103 m N | 0-8: Duff and dark brown sandy loam (Topsoil) 8-61: Yellow brown sandy loam with 20-60% gravels, pebbles, and cobbles increasing with depth (Pleistocene sediments). Terminated in Pleistocene sediments. | None. |

Attachment E. Inadvertent discovery protocol.

The following protocols outline procedures to follow, in accordance with state and federal laws, if archaeological materials or human remains are discovered.

Protocols for Discovery of Archaeological Resources

The Archaeological Sites and Resources Act (RCW 27.53) prohibits knowingly disturbing archaeological sites without a permit from the Washington State Department of Archaeology and Historic Preservation (DAHP), and the Indian Graves and Records Act (RCW 27.44) prohibits knowingly disturbing Native American or historic graves.

In the event that archaeological resources are encountered during project implementation, the following actions will be taken:

In work areas, all ground disturbing activity at the location will stop, and the work supervisor will be notified immediately. The work site will be secured from any additional impacts and the supervisor will be informed.

The project proponent will immediately contact the agencies with jurisdiction over the lands where the discovery is located, if appropriate. The appropriate agency archaeologist or the proponent's contracting archaeologist will determine the size of the work stoppage zone or discovery location in order to sufficiently protect the resource until further decisions can be made regarding the work site.

The project proponent will consult with DAHP regarding the evaluation of the discovery and the appropriate protection measures, if applicable. Once the consultation has been completed, and if the site is determined to be NRHP-eligible, the project proponent will request written concurrence that the agency or tribe(s) concurs that the protection and mitigation measures have been fulfilled. Upon notification of concurrence from the appropriate parties, the project proponent will proceed with the project.

Within six months after completion of the above steps, the project proponent will prepare a final written report of the discovery. The report will include a description of the contents of the discovery, a summary of consultation, and a description of the treatment or mitigation measures.

Protocols for Discovery of Human Remains

If human remains are found within the project location, the project proponent, its contractors or permit-holders, the following actions will be taken, consistent with Washington State RCWs 68.50.645, 27.44.055, and 68.60.055:

If ground-disturbing activities encounter human skeletal remains, 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. The project proponent will prepare a plan for securing and protecting exposed human remains and retain consultants to perform these services. 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 DAHP, which will then take jurisdiction over the remains. 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. DAHP will then handle all consultation with the affected parties as to the future preservation, excavation, and disposition of the remains.

Contact Information

Confederated Tribes and Bands of the Yakama Nation

PO Box 151

Toppenish, WA 98948

Primary Contact: Kate Valdez, THPO, 509-985-7596, or Johnson Meninick, Cultural Resources, 509-685-7203

Washington Department of Archaeology and Historic Preservation

PO Box 48343

Olympia, WA 98504-8343

Lead Representative: Allyson Brooks, State Historic Preservation Officer, office: 360-586-3066

Primary Contact: Stephanie Jolivette, Local Government Archaeologist, office: 360-586-3088, cell: 360-628-2755

Primary Contact for Human Remains: Guy Tasa, State Physical Anthropologist, office: 360-586-3534, cell: 360-790-1633

Kittitas County Coroner's Office

507 North Nanum Street, Suite 113

Ellensburg, WA 98926

Lead Representative: Nick Henderson, Coroner, 509-933-8200

Kittitas County Sheriff's Office

307 West Umptanum Rd

Ellensburg, WA 98926

Lead Representative: Gene Dana, Sheriff, 509-962-7525