CULTURAL RESOURCES REPORT COVER SHEET

Project Number: 2023-05-03011

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Title of Report: Cultural Resource Assessment for the Whidbey West Water Association Water System, Oak Harbor, Island County, Washington

Date of Report: June 7, 2023

County: Island Sections: 5, 6, 32 Township: 32, 33 N Range: 1 E

Quad: Oak Harbor (2020) Acres: ~1

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 #:

_____
_____
_____
_____
_____

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

Cultural Resource Assessment for the Whidbey West Water Association Water System, Oak Harbor, Island County, Washington

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Drayton Archaeology Report: 0423T

June 7, 2023

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Authors:	Garth L. Baldwin, Alex L. Berry, and Shawn L. Dennehy
Date:	June 7, 2023
Location:	Oak Harbor, Island County, Washington
USGS Quad:	Oak Harbor, WA 7.5-minute USGS Quadrangle (2020)
Township, Range, Section:	T 32 N, R 1 E, S 5, 6
	T 33 N, R 1 E, S 32

SUMMARY

Drayton Archaeology (Drayton) was retained by Isaac Stewart of Davido Consulting Group, Inc. to conduct an archaeological assessment for the proposed Whidbey West Water Association Water System project in Oak Harbor, Island County. This undertaking involves replacing up to 3,000 meters (m) or approximately 10,000 feet (ft) of pipe (distribution mains and reservoir feed main) within the Island County rights-of-way (ROW) and some easements. There are also three locations impacted at or adjacent to 2319 Happy Lane, 1957 W Even Down Way, and the intersection of Lavender/Boreas Lane. The Happy Lane location currently has a pumphouse, existing well, and reservoir. This reservoir will be moved to the Even Down location. The Even Down location has one proposed well, a reservoir, and pumphouse. The Lavender/Boreas intersection is impacted by a reservoir fill line replacement.

The purpose of this review is to assess the property for cultural resources that may complicate the proposed work. This archaeological assessment was conducted to satisfy compliance requirements under the U.S. Department of Agriculture (USDA), which prompts compliance with Section 106 (54 USC 306108) of Title 54 USC 300101 et seq., formally and commonly known as the National Historic Preservation Act (NHPA) of 1966, as amended. Consulting parties would include the Washington State Historic Preservation Office (SHPO) and any interested tribes identified by the USDA. They may also include other, non-federal, or governmental stakeholders as they deem necessary. If cultural resources are observed, the SHPO would be a required consulting party with any interested or effected tribe(s) and/or parties.

Drayton's cultural resources assessment consisted of a thorough background review, field investigation, and the production of this report. Background review concluded the undertaking is located in an area of moderate probability for cultural resources based primarily on the property's proximity to known archaeological sites, topography, and ecological context. On-site fieldwork included systematic visual reconnaissance and subsurface investigation of areas of proposed impact. No precontact or historic archaeological deposits were encountered within the APE during Drayton's field investigation. Based on the results of the investigation, we recommend that the

USDA assert a determination of No Historic Properties Affected to the SHPO and all other consulting parties.

Although no archaeological management or mitigation measures are recommended, the undertaking is located within an area of moderate probability for encountering cultural resources. A general inadvertent discovery plan (IDP) for the information of all involved in the undertaking is located at the end of this document. It is the responsibility of all involved to ensure proper consideration for cultural resources and to develop archaeological mitigation strategies, as needed.

REGULATORY CONTEXT

The current review was conducted, in part, to satisfy regulatory requirements for Section 106 of the NHPA and the implementing regulations in 36 CFR Part 800. Section 106 requires Federal agencies to take into account the effects of undertakings on historic properties. A historic property is typically aged 50 years or older and is defined in 36 CFR part 800.16(l)(1) as follows:

> … any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

The procedures under Section 106 generally require the Federal agency involved in the undertaking to identify the APE, inventory any historic properties that may be located within the APE, and determine if the identified historic properties located within the APE may be eligible for listing on the NRHP. An APE is defined in 36 CFR 800.16(d), as follows:

> … the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

If NRHP-eligible historic properties are identified within the APE, then potential adverse effects to the historic properties must be assessed and a resolution of adverse effects must be recommended. Under Section 106, the responsible Federal agency must, at a minimum, must consult with and seek comment from the State Historic Preservation Officer (SHPO) and/or the Tribal Historic Preservation Officer (THPO), as applicable, and consult with any affected or potentially affected Native American Tribe(s).

AREA OF POTENTIAL EFFECT (APE) AND DESCRIPTION

The APE consists of a 3,000-m (approximately 10,000-ft) pipe corridor running along the ROW of West Beach Road, Lavender Lane, West Even Down Road, Conniston Way, Buckthorn Road, and several easements adjacent to Swantown Road. In addition, the APE consists of two (2) well locations including a reservoir and pumphouse, situated at 2319 Happy Lane and 1957 West Even Down Way in Oak Harbor, Washington. The APE spans Township 32 and 33 North, Range 1 East, Sections 5, 6, and 32, of the Willamette Meridian (Figures 1 and 2). The undertaking, as proposed, involves replacing up to 3,000 m (approximately 10,000 ft) of water pipes consisting of distribution mains and reservoir feed from the existing two (2) wells and one (1) proposed well, as well as locations at or adjacent to Happy Lane and West Even Down Way (Figure 3).

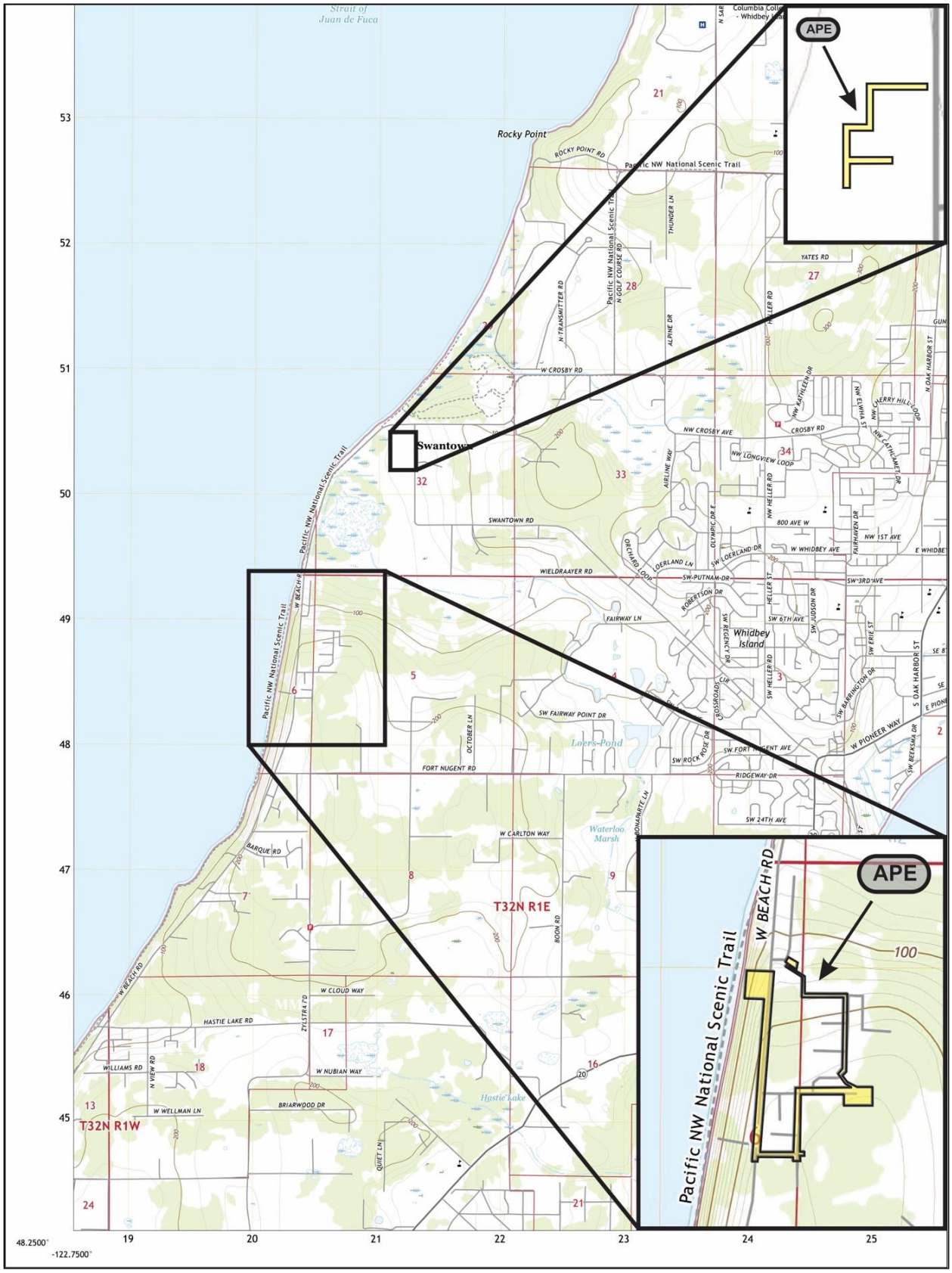

Figure 1. A portion of the Oak Harbor (2020), WA 7.5' USGS quad map of the APE.

Figure 2. An aerial image illustrating the southern APE.

Figure 3. An aerial image illustrating the northern APE.

Figure 4. Proposed undertaking plan (courtesy of the client).

BACKGROUND REVIEW

An investigation of available archives informs us of the potential for encountering cultural resources within the area of potential effect (APE). Drayton's consulted archives include documents related to precontact and historic environmental and cultural contexts, previously recorded cultural resources studies and site records, and selected published local historic accounts. Archaeological records are obtained from the DAHP's Washington Information System for Architectural and Archaeological Records Data (WISAARD). WISAARD is a restricted-access searchable geographic information system containing locations of previously recorded cultural resources surveys conducted post-1995, archaeological sites, historic sites, National Register of Historic Places (NRHP) sites, and cemeteries and burials. For this undertaking, Drayton reviewed cultural resource archives documented within an approximate 1.6-kilometer (km) or one-(1) mile (mi) radius of the APE.

The following sections detail the environmental, cultural, and archaeological circumstances that inform Drayton's archaeological assessment of the APE.

Natural Environmental Setting

The environmental setting of the region is presented here to appreciate the unique geologic conditions responsible for the landscape formations that affected the lifeways of early inhabitants. Natural geologic conditions also provide baseline context for the cultural resources assessment to better understand how the landscape has been culturally modified by various human activities.

Geology and Topography

The Puget Lowland was shaped by at least four (4) periods of extensive glaciation throughout the Pleistocene (Waitt and Thorson 1983). The repetitive advance and retreat of glaciers scoured landmass and deposited sediments. Deposits representing three (3) separate periods of glacial advance and retreat can be found on Whidbey Island (Easterbrook 1968). The surficial features on Whidbey Island are a result of the most recent of these, the Fraser Glaciation.

The Vashon Stade of the Fraser Glaciation began approximately 18,000 years before present (BP) with the advance of the Cordilleran ice sheet into the lowlands (Porter and Swanson 1998). As the ice accumulated, one (1) lobe flowed into the Puget Lowland while another lobe filled the Strait of Juan de Fuca. The ice within the Puget lobe extended to Seattle between 15,000 - 14,500 BP, reaching its terminus just south of Olympia between 14,500 - 14,000 BP (Clague and James 2002, Easterbrook 2003, Waitt and Thorson 1983). Glacial till was deposited over most of the upland areas on Whidbey Island as the glacier advanced (Easterbrook 1968). The Puget lobe was thicker northward and thinned towards its terminus and the ice over present-day Whidbey Island is estimated to have been approximately 1,000 - 1,400 m (3,500 - 4,500 ft) deep (Easterbrook 1968, Porter and Swanson 1998).

The Vashon Stade ended relatively quickly, and the Puget lobe of the ice sheet retreated back towards Seattle by 14,000 BP (Easterbrook 2003). The Juan de Fuca lobe retreated faster than the Puget lobe, as its breakup was expedited by the calving of large chunks of ice into the ocean water filling the strait. Marine waters flowed into the lowlands carved out by the glaciers, filling the Puget Sound; the remaining ice wasted away rapidly. Everson glaciomarine drift deposits were released from the melting glacial ice and deposited on the sea floor across the northern and central Puget Lowland (Easterbrook 2003). Radiocarbon dates of these deposits are between 12,500 - 11,500 BP (Easterbrook 2003).

During the late phases of the Fraser Glaciation, relative sea levels were higher than at present. The sheer weight of the ice served to depress the land (isostatic depression) and it took time for the land to rebound once the ice melted, effectively raising sea levels (isostatic rebound) (Clague and James 2002). Kovanen and Easterbrook (2002) suggest a rapid rise in sea level occurred between 12,000 - 11,000 BP and a subsequent fall approximately 9,000 BP. At this time, the sea level became somewhat stabilized below the present-day level. Former shorelines and marine deltas are found up to 33 meters above mean sea level on southern Whidbey Island and up to 88 meters above mean sea level on northern Whidbey Island (Easterbrook 2003). The APE is located along a marine-ice margin that existed along the south side of Penn Cove (Easterbrook 2003).

Soils

The University of California Davis Agriculture and Natural Resources (UC Davis), in conjunction with the USDA's Natural Resource Conservation Service (NRCS), developed an interactive soil survey (UC Davis SoilWeb) application that provides a description of native soils in specific locales. According to the UC Davis SoilWeb database, soils within the APE are mapped as Sucia loamy sand, Sholander sandy gravelly loam, and Indianola silty clay.

Sucia loamy sand is formed in glacial drift over dense glaciomarine deposits in valleys of drift plains. The series can be found on glacial outwash plains with slopes of zero (0) to 20 percent. Sucia soils are moderately deep and moderately well-drained. A typical profile consists of an A horizon from zero (0) to 20 centimeters (cm) or zero (0) to eight (8) inches (in) of very dark grayish brown loamy sand, a Bw horizon from 20 to 43 cm (eight [8] to 17 in) of dark yellowish brown loamy sand, an E horizon from 43 to 79 cm (17 to 31 in) of dark gray gravelly loamy sand, a 2Btg horizon from 79 to 97 cm (31 to 38 in) of olive-brown loam, and a 2Cd horizon from 97 to 152 cm (38 to 60 in) of light brownish gray silt loam (UC Davis SoilWeb n.d.).

Sholander sandy gravelly loam is formed in glacial outwash over dense glaciomarine deposits. The series can be found in valleys of drift plains and have slopes of zero (0) to 20 percent. Sholander soils are deep and somewhat poorly drained. A typical profile consists of an A horizon from zero (0) to 20 cm (zero [0] to eight [8] in) of very dark brown gravelly loam, an E horizon from 20 to 41 cm (eight [8] to 16 in) of dark grayish brown gravelly sandy loam, a Bg1 horizon from 41 to 71 cm (16 to 28 in) of brown gravelly loamy sand, a Bg2 horizon from 71 to 130 cm (28 to 51 in)

of brown gravelly sand, and a 2Cd horizon from 130 to 152 cm (51 to 60 in) of gray loam (UC Davis SoilWeb n.d.).

Indianola silty clay was formed in sandy glacial drift and can be found on hills, terraces, terrace escarpments, eskers, and kames of drift or outwash plains at elevations of near sea level to approximately 300 m (1,000 ft) and have slopes of zero (0) to 70 percent. Indianola series soils are very deep, somewhat excessively drained soils. A typical profile consists of an Oi horizon from zero (0) to three (3) cm (zero [0] to one [1] in) of slightly decomposed plant material, an A horizon from three (3) to 15 cm (one [1] to six [6] in) of very dark grayish brown loamy sand, a Bw1 horizon from 15 to 43 cm (six [6] to 17 in) of yellowish brown loamy sand, Bw2 horizon from 43 to 69 cm (17 to 27 in) of yellowish brown sand, a BC horizon from 69 to 94 cm (27 to 37 in) of pale brown sand, and a C horizon from 94 to 152 cm (37 to 60 in) of pale brown sand (UC Davis SoilWeb n.d.).

Flora and Fauna

The undertaking is located within the Western Hemlock or *Tsuga heterophylla* vegetation zone. The Western Hemlock Zone extends from the Kenai Peninsula in Alaska, along the coast and inland western slopes of the Cascade Range of Washington and Oregon states, to Sonoma County in California. Dominating the mild and humid regions along the coast the Western Hemlock Zone is influenced by maritime climatic zones (Franklin and Dyrness 1973). Native vegetation includes Douglas fir (*Pseudotsuga menziesii*), western red cedar (*Thuja plicata*), western hemlock (*Tsuga heterophylla*), salal (*Gaultheria shallon*), and vine maple (*Acer circinatum*). Native Understory vegetation includes bracken fern (*Pteridium aquilinum*), black raspberry or blackcap (*Rubus occidentalis*), currants and gooseberries (*Ribes* spp.), deer fern (*Blechnum spicant*), devil's club (*Oplopanax horridus*), huckleberries (*Vaccinium* spp.), Indian plum or Oso berry (*Oemleria cerasiformis*), oceanspray (*Holodiscus discolor*), red elderberry (*Sambucus racemosa*), snowberry (*Symphoricarpos albus*), sword fern (*Polystichum munitum*) and trailing blackberry (*Rubus ursinus*) (Franklin and Dyrness 1973; Pojar and MacKinnon 1994). Large areas of prairie, oak woodland, and pine forest are distributed throughout the southern Puget Sound basin (Franklin and Dyrness 1973).

Whidbey Island is rich in marine wildlife. Marine mammals include orca (*Orcinus orca*), gray (*Eschrichtius robustus*), and humpback (*Megaptera novaeangliae*) whales, sea lions (*Otariidae* spp.), sea otters (*Enhydra lutris*), and harbor seals (*Phoca vitulina*). The islands support over 100 species of birds. More notable bird species included the common loon (*Gavia immer*), great blue heron (*Ardea herodias*), Canada goose (*Branta canadensis*), wood duck (*Aix sponsa*), green-winged teal (*Anas crecca*), mallard (*Anas platyrhynchos*), northern pintail (*Anas acuta*), gadwall (*Anas strepera*), American wigeon (*Anas americana*), common barn owl (*Tyto alba*), and red-winged blackbird (*Agelaius phoeniceus*).

Native fish including black rockfish (*Sebastes melanops*), herring (*Clupea pallasii*), smelt (or eulachon) (*Thaleichthys pacificus*), halibut (*Hippoglossus stenolepis*), flatfish (*Pleuronectiforms* spp.), Chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*Oncorhynchus Kisutch*), chum salmon (*Oncorhynchus keta*), sockeye salmon (*Oncorhynchus nerca*), and spiny dogfish (*Squalus ananthias*) were abundant in the area. Shellfish including littleneck clams (*Leukoma staminea*), butter clams (*Saxidomus giganteus*), horse clams (*Tresus capax*), bay mussels (*Mytilus edulis*), cockles (*Clinocardium nuttallii*), native oysters (*Ostrea lurida*), and crab *(Crustacea* spp.) are also common. The area supports many terrestrial animals including black-tailed deer (*Odocoileus hemionus*), elk (*Cervus canadensis*), black bear (*Ursus americanus*), beavers (*Castor canadensis*), striped skunk (*Mephitis mephitis*), northern flying squirrel (*Glaucomys sabrinus*), Townsend's chipmunk (*Tamias townsendii*), and Douglas' squirrel (*Tamiasciurus douglasii*).

Cultural Context

A broad discussion of regional land use in the vicinity of the APE provides contextual information regarding past inhabitants and the activities in which they engaged. It is important to note that many of the name designations applied to Native inhabitants (particularly during contact and early historic periods), are those given by European explorers, Euro-American settlers, and others compiling information for treaty purposes.

Human occupation of the Puget Lowland is well documented in a number of archaeological, ethnographic, and oral historic records (e.g., Ames and Maschner 1999; Greengo and Houston 1970; Larson and Lewarch 1995; Moss 2011; Nelson 1990; Suttles 1974). British Columbia Northwest Coast Culture traditions are closely related and can be viewed in Borden (1950; 1975), Carlson and Dalla Bona (1996), Fladmark (1982), and Matson and Coupland (1995).

Precontact

Puget Lowland archaeology has traditionally been subdivided into three (3) time periods: the early (approximately 12,000 to 5,000 years BP), middle (approximately 5,000 to 1,000 BP), and late periods (approximately 1,000 to 250 BP) (Carlson 1983). However, calibrated radiocarbon dates from the Bear Creek site (45KI839) located in Redmond, Washington date to 12,420 -12,690 years BP (Kopperl et al. 2015). The date ranges associated with the archaeological time periods of this region are fluid and subject to change when new sites are located and dated.

The early period is characterized by activities to support habitation within camps along river terraces or outwash channels. Tool technology is primarily characterized by the use of flaked stone tools including fluted projectile points, leaf-shaped points, and cobble-derived tools. These artifacts are often attributed to the "Olcott" phase, named after the site type near Arlington and Granite Falls (Baldwin 2008; Kidd 1964; Mattson 1985). As suggested by Mattson (1985) and Kidd (1964), Olcott sites are generally located away from modern shorelines, where occupation took place along terraces of active water courses of the time. Today, these past habitation areas are often found away from modern rivers, as the course of waterways and channels have shifted over

time. Besides the lithic assemblage, little faunal or organic evidence dates to this period - likely a result of poor preservation due to soil composition and elapsed time. The lack of organic evidence and the abundance of lithic materials unintentionally skew the archaeological record to suggest a specialization of terrestrial hunting practices.

The middle period coincides with a stabilization of the physical environment and climate to modern conditions. The middle period is noted for its increased artifact and trait diversity including a full woodworking toolkit comprised of bone and antler implements, art and ornamental objects, status differentiation in burials, and extremely specialized fishing and sea-mammal hunting technologies (Ames and Maschner 1999; Matson and Coupland 1995; Moss 2011; Wessen 1990). Lithic technology becomes specialized to include smaller notched points and groundstone (Moss 2011; Nelson 1990; Wessen 1990). Shell midden sites first appear during this period, indicating a transition to a predominantly maritime-based subsistence pattern (Matson and Coupland 1995; Nelson 1990; Thompson 1978). Although structural elements such as post molds have been identified (Moss 2011; Nelson 1990), habitation structures have not been excavated.

The late period is dominated by a settlement pattern along the coastline, streams, and rivers that show evidence of increased fortification (Ames and Maschner 1999; Matson and Coupland 1995; Moss 2011). Rising sea levels and riparian environments supporting large salmon runs allowed salmon to become a predominant food source (Moss 2011; Wessen 1990). The late period is generally recognized by an apparent decrease in artifact diversity. Stone carving and chipped stone technologies nearly disappear, while trade goods (indicating extensive trade networks along the coast and with inland plateau peoples), increase (Moss 2011; Nelson 1990; Thompson 1978).

Ethnographic

The APE is located within the traditional lands of many Southern Coast Salish groups inhabiting Whidbey and Camano Islands. Specifically, the APE location is most likely located within the traditional use areas of the Snohomish and Lower Skagit (Wessen 1988; Sampson 1972; Suttles and Lane 1990; Tweddell 1974). Wessen (1988) notes that the Snohomish occupied the southern portion of Whidbey and Camano Islands, the Lower Skagit occupied the upper portions of Whidbey Island, and the Kikiallus traditionally resided in the northern portion of Camano Island. The Snohomish and Kikiallus groups maintained close ties with the Stillaguamish and shared land areas within the Stillaguamish watershed (Ruby and Brown 1992[1986]). Native groups in this region primarily spoke the Northern Lushootseed language (Suttles and Lane 1990).

Puget Sound groups seasonally traveled between the islands and mainland to support subsistence activities. The occupational activities of the Snohomish were primarily concentrated along the Snohomish River between present-day Marysville and Monroe; however, Tweddell (1974) and Wessen (1988) identify their use of the southern portions of Camano and Whidbey Islands. The Snohomish were known to maintain seasonal and long-term occupations and villages including, *C tLc ‘tLtcL* (Bush Point), *DEqwadzk* (Cultus Bay), *Tc ’tc Leks* (Sandy Point), on Whidbey Island;

and *Xo'ic1d* (Camano Head), Gedney (Hat) Island, Warm Beach, and *Sbi'bida*, *Hibu'l3ub* (Everett), tuxqwota'itsdEb (Quil Ceda Creek), Priest Point, and inland to *sbah-DAHLH* (Snohomish) (Tweddell 1974:102-103; Hilbert et al. 2001:330-371).

Subsistence activities practiced by the groups inhabiting the region are characteristic of a semi-sedentary land use system based on seasonal hunting, fishing, and gathering of resources. Resources acquired in the summer months were prepared and stored for winter use. A variety of local foods were consumed including various species of fish (predominantly salmon), shellfish, waterfowl, land mammals, roots, and berries (Sampson 1972; Suttles and Lane 1990). Generally, this subsistence strategy was facilitated by the occupation of dispersed temporary camping sites in the spring and summer months and large multi-family village settlements for the winter months. Temporary shelters were often constructed of poles covered with cattail mats while large winter houses were constructed from cedar posts, poles, and planks.

Inter-tribal use of traditional lands areas relied on cooperation between groups. In general, a group with a predominant claim to an area established expectations for land use by other groups. Tweddell (1974:93) described this relationship as being composed of, "… two (2) circles, an inner circle of usage where other tribes seldom if ever came, except with some special sanction, and an outer circle of usage where other tribes could come on the basis of the traditional alignments of friendship, or with specific permission." In most areas of Island County, the Snohomish, and their affiliated tribes held this observed distinction. According to Tweddell (1974:95), "The members of the Snohomish Indian Tribal circle were the Klallam, Chemakum, Lummi, Swinomish, Skagit, Kikialos [sic], Stillaguamish, Snoqualmie, Duwamish, Puyallup, Nisqually, Suquamish, and perhaps the Klickitat."

Native groups who signed the 1855 Treaty of Point Elliot were displaced to temporary reservations. In 1873, the Swinomish Reservation in Skagit County and the Tulalip Reservation in Snohomish County were made permanent. In the 1920s, the Stillaguamish began their legal fight for federal recognition, finally gaining it in the 1970s. Today, the tribe owns a small area of land near Arlington and Smokey Point. The Kikiallus have yet to be federally recognized (Sampson 1972).

Historic Period

In 1790, Spanish explorers Manuel Quimper and Gonzalo Lopez de Haro were the first to chart Whidbey Island. In 1792, the British expedition under George Vancouver explored the Puget Sound and Hood Canal. Vancouver named Whidbey Island in honor of Joseph Whidbey, who commanded the *HMS Discovery* (Kellogg 1968). During this sailing, Whidbey noted a cove on the island's eastern side, which Vancouver named Penn's Cove, after a friend (Cook 1972). During this expedition, Vancouver also noted an "abandoned village" site in the cove and observed approximately 600 inhabitants along its shores (Vancouver 1792:165). In 1841, the Wilkes

expedition surveyed Whidbey Island and Penn Cove and reported many small village sites with a permanent settlement along the shore of the cove (Wilkes 1856).

The first Euro-Americans to settle in Island County were sea captains and farmers. In the late 1840s and early 1850s, Mr. Thomas Glagow and Mr. Thomas Ebey were the first to settle on Whidbey Island near modern-day Coupeville (Kellogg 1968). The Donation Land Claim Act was passed in 1850 and the first claim on central Whidbey Island was filed by Colonel Isaac Neff Ebey (Riddle 2010). The settlers that followed took residence on the existing prairie land near what is now Ebey's Landing. Captain Benjamin Barstow opened the first trading post in Coveland at the head of Penn Cove by 1853. In 1856, Thomas Cranney and Lawrence Grennan operated a general store in Coveland, which also served as the first courthouse in Island County. Cranney and Grennan later marketed lumber and timber to their mill at Utsalady. The area was platted by 1888 and the name changed to San de Fuca (Riddle 2010). San de Fuca served as the county seat until it was moved to Coupeville in 1881. As more settlers came to the region to farm the rich prairie soils of the island, new communities like Oak Harbor, Langley, and Greenbank were established.

The Point Elliot Treaty, signed January 22, 1855, was an attempt by the American government to limit Indian territories and open Washington for free settlement, including Penn Cove. The Point Elliot Treaty led to the modification of existing native settlement patterns and restriction of Indian movement, influencing all future settlements. Numerous tribes were signatories to the Point Elliott Treaty, which at the time offered only four (4) reservations (Deur 2009). However, many people refused to relocate to these reservations. In response, Governor Stevens established the Penn Cove Special Indian Agency to oversee the area's residents. This agency operated from 1855 through at least 1861. Members from Snohomish, Swinomish, Upper Skagit, Lummi, Clallam, Samish, Snoqualmie, and S'Klallam were noted to have visited Penn Cove while the agency was in operation, and many councils were still held in the area at this time (Deur 2009).

Oak Harbor was incorporated in 1915 with Jerome Ely serving as mayor. At the time Oak Harbor served as a market town, shipping out farm goods and purchasing and trading supplies weekly. In 1920 a fire spread through the town burning down the Byrne Hotel, store and warehouse, the Kennedy's blacksmith shop, the co-op creamery, a garage, and a house, forcing the business district to move west. The fire brought island residents from Oak Harbor to Coupeville, as well as a fire crew from Fort Casey to battle the blaze (Wilma 2007).

Shifts to Whidbey's economy continued after the Great Depression with a turn towards recreation and tourism. The outlawing of fish trapping led to resort fishing on South Whidbey in the 1930s (South Whidbey Historical Museum n.d.). Deception Pass State Park was also created in the 1930s and the construction of roads allowed auto tourism to the island. Fort Casey and Fort Ebey, built during World War II, were both decommissioned and now serve as Washington State Parks. Oak Harbor is now best known for the Naval Air Station Whidbey Island (NASWI), which was built

in 1942. The NASWI brought a flood of construction workers and sailors to the area. The NASWI is still commissioned and has grown as other Naval Stations have phased out (Wilma 2007). In 2005, the NASWI employed 68 percent of the county's total employment, and nearly 88 percent of all economic activity was linked to the base (McClary 2005). Today, 8,400 men and women are employed at NASWI.

Cultural Resource Management Inventories and Documented Resources

Previous cultural resources studies, projects, and undertaking conducted in the vicinity of the APE inform the archaeological context for this assessment and assist in the construction of Drayton's cultural resource expectations.

Previous Cultural Resources and Sites

A review of the DAHP's WISAARD database was conducted on May 4, 2023. According to the available data on WISAARD, nine (9) cultural resource studies are recorded within a 1.6 km (one- [1] mi) radius of the APE (Table 1). These studies were largely conducted to satisfy regulatory compliance related to infrastructure and development projects or occur within site 45DT0126, Captain James Griffith's Farmstead, a dairy farm on the National Register of Historic Places located South of Joseph Whidbey State Park and Swantown Lake. No archaeological sites are recorded within a 1.6 km (one- [1] mi) radius of the APE. All archaeological sites associated with Rudolph (2008; 2009; 2011) are part of larger projects spanning across Whidbey Island.

Table 1. Cultural resource studies recorded within a 1.6 km (one- [1] mi) radius of the APE.

Citation	Report Title	Results
Hibdon et al. 2022	Cultural Resources Survey for the Washington State Parks and Recreation Commission Joseph Whidbey State Park Trail Bridge Repairs Project, Island County, Washington	Negative
Baldwin and Hanson 2018	Cultural Resources Desktop Review for the HLC-23 W Beach Road TW & Neutral, Oak Harbor, Island County, Washington	Negative
Darby 2017	Cultural Resources Survey for Proposed KRPA AM Radio Facility, Oak Harbor Vicinity, Island County	Negative
Iverson 2015	Cultural Resources Assessment for the Whidbey West Water Association's Proposed West Beach Waterline Replacement Project on Whidbey Island	Negative
Chidley 2014	Naval Air Station Whidbey Island Cold War Study Phase 2: Inventory and Evaluation	Negative
Rudolph et al. 2011	Cultural Resources Monitoring Report for Building Demolition NAS Whidbey Island	45IS042
Hampton 2011	Phase I Architecture Survey of Naval Air Station Whidbey Island	Negative
Rudolph et al. 2009	Historic Properties Assessment and National Register Eligibility Recommendations for P-236 ARRA Waterline Replacement NAVFAC Northwest AOR: NAS Whidbey Island, the City of Oak Harbor	45IS236 45IS237 45IS239 NAS WL-1

Citation	Report Title	Results
Rudolph et al. 2008	Cultural Resources Survey of Impact and Mitigation Areas on Naval Air Station Whidbey Island	45IS043 45IS079 45IS080 45IS081 45IS082 45IS204 45IS237 45IS238 45IS236 45IS239 45IS240 45IS241 45IS242 45IS243 45IS244

National Registered Historic Places (NRHP)

There is one (1) NRHP-eligible property within a 1.6 km (one- [1] mi) radius of the undertaking. Captain James Griffith's Farmstead, 45FT126, was a dairy farm just less than 120 m (400 ft) south of Swantown Lake. James Griffiths Farmstead lays over 400 acres of land and consists of a 45 m (150 ft) timber frame dairy barn, a 21 m (70 ft) pig barn perpendicular to a butcher shop, a milking house, multiple sheds, and two (2) 1920s homes. In 1885, Griffith helped found the Tacoma Navigation Steam Company where he designed Tacoma's first tugboat, with businesses at almost every port in the Puget Sound (Fakkema 1989).

Recorded Cemeteries

There are no cemeteries recorded within a 1.6 km (one- [1] mi) radius of the APE.

CULTURAL RESOURCE EXPECTATIONS

Based on the preceding background review, Drayton concludes that the undertaking is located within an area of moderate probability for historic-era or precontact cultural deposits, structures, or isolated items.

This determination is based largely on the historical land use of the property, the results of previous cultural resource assessments conducted in the vicinity, and nearby sites. Iverson (2015) conducted a phase I survey with the excavation of 38 shovel probes along West Beach Road. All probes were negative. Although there are no sites or cemeteries within the vicinity of the APE, shell midden has been recorded within five (5) km (approximately three [3] mi) from the APE. The Captain James Griffith Farmstead, a 400-acre dairy farm, is located approximately 213 m (700 ft) south of

the APE making the potential for recovering historic materials associated with this farmstead possible. Captain Griffith conducted business in almost every port of the Puget Sound and was a founder of the Tacoma Navigation Steam Company where he designed the first tugboat in Tacoma. Any sites or features associated with a person or place of historical significance, depending on the degree of integrity, are noteworthy and could be eligible for listing on the NRHP.

If precontact materials are present, they may include remnants associated with habitation, subsistence practices, or ceremonial activities. Shell midden, vestiges of temporary camps and dwellings, lithic scatters, trails, hearths, fire-modified rock, faunal remains, and other materials associated with precontact life may be represented. Historic-era remnants of early Euro-American settlement and subsequent occupation are also considered.

FIELD INVESTIGATION

Drayton employs standard archaeological field methods to assess the potential for cultural resources within the APE. Field methods include a thorough visual reconnaissance of the property and subsurface examination of soils. Visual reconnaissance includes a detailed surface survey of the areas proposed for ground alteration (or other impacts) to examine existing ground disturbances and locate surficial cultural materials or structures with historic or archaeological importance or cultural concern. Subsurface examination through the excavation of shovel probes or large-scale mechanical excavation provides a detailed sample of soil conditions to assess the potential for, or presence/absence of, buried archaeological deposits. Subsurface excavation is typically dependent upon considerations of the landform, topography, project/undertaking proposal, and geologic conditions.

Drayton's archaeological assessment was conducted on May 9 and 10, 2023, by Senior Archaeologist Alex Berry with additional support from Field Director Shawn Dennehy and Field Technicians Emma Grave and Megan Matson. Weather conditions were partly cloudy with an average temperature of 65 degrees Fahrenheit. A visual inspection of the APE was conducted to examine the terrain, observe existing ground disturbances, and locate surficial cultural materials. The APE consists of a 3,000-m (10,000-ft) corridor running along the right-of-way (ROW) of West Beach Road, Lavender Lane, West Even Down Road, Conniston Way, Buckthorn Road, several easements adjacent to Swantown Road, and two (2) well locations including a reservoir and pumphouse situated at 2319 Happy Lane and 1957 W Even Down Way (Photos 1 - 11) and one (1) proposed well location adjacent to 1957 W Even Down Way. No cultural materials were observed during the visual inspection of the APE.

Photo 1. Northeastern view of the well located at 2319 Happy Lane.

Photo 2. Southern view of the well located at 1957 West Even Down Way.

Photo 3. Western overview of the property easements off Swantown Road.

Photo 4. Southwestern overview of the property easements off Swantown Road.

Photo 5. Southern overview of the property easements off West Beach Road.

Photo 6. Northern view of the West Beach Road APE.

Photo 7. Western view of the Lavender Lane APE.

Photo 8. Northern view of the Boreas Lane APE.

Photo 9. Southern view of APE connecting West Even Down Way to Boreas Lane.

Photo 10. Eastern view of the Buckthorn Road APE.

Photo 11. Southern view of the Conniston Way APE.

A total of 43 shovel probes were subsequently excavated along the ROW, easements where access was granted, and the reservoir locations (Figures 5 and 6). Standard shovel probes consist of cylindrical pits measuring approximately 40 cm (15.75 in) in diameter. No predetermined target depth is set for probing, as depths are based on geologic conditions, water table, degree of disturbance, and professional judgment. Ideally, shovel probes are considered complete when at least 20 cm (approx. 8 in) of sterile soils are observed or an intact stratum of glacial deposits is encountered. Soils excavated from probes were screened through a shaker screen with quarter-inch hardware cloth. The shovel probes were completely backfilled, and the locations were marked with a GPS to compose a site sketch map. Some areas off of Swantown Road and the corridor connecting West Even Down Way to Boreas Lane of the APE were inaccessible due to private property.

Soil profiles were consistent with the previously described soils mapped for the area. Probes contained a combination of dark brown loamy sand, very dark grayish brown gravelly loam, and yellowish-brown sandy loam (Photos 12). A description of the soil sequence and composition of each shovel probe is described fully in Appendix A. No cultural materials were encountered during the field investigation.

Figure 5. An aerial image illustrating shovel probe locations within the southern APE.

Figure 6. An aerial image illustrating shovel probe locations within the northern APE.

Photo 12. Example of soil profiles observed during subsurface investigations of the APE.

CONCLUSIONS AND RECOMMENDATIONS

Drayton's cultural resources assessment consisted of a thorough background examination, field investigation, and production of this report. A professional archaeologist who meets or exceeds the requirements of the Secretary of the Interior conducted this review and concluded the undertaking is located in an area of moderate probability for cultural resources. The present cultural resources assessment consisted of background review, field investigation, and production of this report. Background review determined the project area to be located in an area of low probability for cultural resources based on the property's proximity to known archaeological sites. No evidence of historic or precontact cultural material was observed during field investigation. Based on the results of this review; Drayton recommends that USDA assert a determination of No Historic Properties to the SHPO and all consulting parties.

The following section, Inadvertent Discovery Protocols, outlines the recommended procedures based on 36 CFR 800.13 that property owners, project managers, construction crews, and others responsible for work should follow if cultural materials are encountered during project activities.

INADVERTENT DISCOVERY PROTOCOLS

Should archaeological resources (e.g., shell midden, faunal remains (bones), stone tools, historic glass, metal, or other concentrations) be observed during project activities, all work in the immediate vicinity should stop and the area should be secured. USDA must be contacted immediately. The USDA will direct a review of any find and contact the relevant consulting parties. An assessment of the discovery and consultation with government and tribal cultural resources staff is a requirement of Section 106. Once the situation has been assessed, steps to proceed can be determined.

Human Burials, Remains, or Unidentified Bone(s)

In the event of inadvertently discovered human remains or indeterminate bones, work must stop immediately. The area surrounding the discovery should be secured and of adequate size to protect the discovery from further disturbance until the USDA provides a notice to proceed. The discovery of any human skeletal remains must be reported to law enforcement and the USDA immediately. The county medical examiner/coroner will assume jurisdiction over the human skeletal remains to 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 the USDA, in cooperation with the State Physical Anthropologist at DAHP and consulting THPO(s), will determine the proper treatment of the remains.

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APPENDIX A: SHOVEL PROBE INDEX

DEPTH BELOW SURFACE (CM)	SOIL DESCRIPTIONS	RESULTS
SD1		
0 - 25	Dark brown gravelly loamy sand, many rounded pebbles, and cobbles, very fine and fine roots, slightly moist	10 cm depth- 1 in-diameter steel bar, possibly rebar, heavily rusted, Length unknown, left in situ
25 - 95	Pale brown loamy sand, less gravelly than the above layer, minimal rust-colored iron oxide mottles	Negative
SD2		
0 - 25	Dark brown gravelly loamy sand, rounded pebbles, and cobbles, very fine and fine roots, slightly moist, some charcoal and decomposing wood from branches or roots.	20 cm depth- red PSE pin flag.
25 - 70	Pale brown loamy sand, less gravelly than the above layer, minimal rust-colored iron oxide mottles.	Negative
SD3		
0 - 20	Dark brown gravelly loamy sand and silt, moderate rounded cobbles, very fine and fine roots, slightly moist	Negative
20 - 30	Reddish brown silt loam, slightly moist, charcoal	Negative
30 - 80	Light grayish-brown sand, rounded cobbles, minimal pebbles, rust-colored iron oxide mottles	Negative
SD4		
0 - 20	Dark brown gravelly loamy sand and silt, moderate rounded cobbles, very fine to coarse roots, slightly moist.	Three (3) small pieces of modern clear plastic tarp material
20 - 50	Reddish brown loamy silt, slightly moist.	Negative
50 - 85	Light yellowish brown sand, very few cobbles, and pebbles, slightly moist.	Negative
SD5		
0 - 35	Dark brown loamy sand, very fine to coarse roots, very gravelly.	10 cm depth- 25cm x 1 cm black plastic strip
35 - 65	Reddish brown loamy silt.	Negative
65 - 95	Yellowish brown loamy sand and silt.	Negative
SD6		
0 - 10	Dark brown loamy sand and silt, very gravelly.	Negative
10 - 25	Grayish brown loamy sand, gravelly.	Negative
25 - 40	Reddish brown silt.	Negative
40 - 60	Grayish brown sand, rounded cobbles.	Negative
Note: Probe terminated due to water table		

DEPTH BELOW SURFACE (CM)	SOIL DESCRIPTIONS	RESULTS
EG1		
0 - 52	Gray-brown fine sandy loam, lots of small to medium roots, loose	Negative
52 - 74	Yellowish brown gray brown sandy silt loam, medium roots, compacted, some areas of grey-brown coloring, fine grain sand	Negative
74 - 87	Grey sandy silt loam, fine grain, very compact, consolidated	Negative
EG2		
0 - 14	Dark brown sandy loam, fine roots, few medium roots, fine grain sand, some small cobbles/pebbles, compact	Negative
14 - 29	Light yellowish brown, fine sandy loam, compacted, few fine roots, some small cobbles/pebbles	Negative
29 - 86	Gray sand, fine and coarse grain sand, some small cobbles/pebbles, compact	Negative
EG3		
0 - 28	Brown sandy loam, fine sand, many fine roots, some angular gray rocks	Negative
28 - 43	Orangish brown fine compacted sand	Negative
43 - 79	Gray fine grain sand, compacted and well consolidated, some orange mottling	Negative
EG4		
0 - 38	Yellowish brown fine grain sandy loam, small roots, angular gravel fill, asphalt in the western wall, some charcoal and wood chunks	Negative
38 - 87	Gray fine grain sand, compacted and well consolidated, some orange mottling	Negative
EG5		
0 - 9	Dark brown fine sandy loam, wood chunks, fine roots, landscaping tarp at 9 cm	Negative
9 - 44	Yellowish brown fine sandy silt loam, some small cobbles, compacted, some fine roots	Negative
44 - 76	Gray fine grain sand, compacted and well consolidated, some orange mottling	Negative
EG6		
0 - 26	Grayish brown fine grain sandy silt loam, fine roots, some small rocks, medium roots	Negative
26 - 35	Gray coarse grain sand, small angular and rounded rocks,	Negative
35 - 48	Yellowish brown fine sandy loam, compacted, small to medium roots, some pockets of charcoal	Negative
48 - 76	Brown sandy loam, some small rocks, compact	Negative
EG7		
0 - 8	Brown sandy silt loam, fine grain, fine roots, small to medium-sized angular and rounded rocks	Negative
8 - 48	Gray sand, very compacted, gravel, and angular rocks	Negative
Note: probe terminated due to being too compact to penetrate		

DEPTH BELOW SURFACE (CM)	SOIL DESCRIPTIONS	RESULTS
EG8		
0 - 12	Brown sandy silt loam, fine grain, fine roots, small to medium-sized angular and rounded rocks	Negative
12 - 42	Yellowish brown sandy silt loam, fine grain sand, many small rocks, compact	Negative
42 - 69	Gray fine grain sand, compacted and well consolidated, some orange mottling	Negative
EG9		
0 - 15	Grayish brown sandy silt loam, fine grain, some angular rocks, fine roots	Negative
15 - 19	Asphalt lens, thick and intact in the east wall (closer to the road) and less intact and loose in the western portion of the layer	Negative
19 - 33	Grayish brown sandy silt loam, fine grain, lots of angular rocks, fine roots, very compact	Negative
Note: probe terminated due to being too compact to penetrate		
EG10		
0 - 38	Grayish brown sandy silt loam, fine grain, many angular and rounded rocks, fine roots, compact	Negative
38 - 76	Grayish brown sandy silt loam, fine grain, many angular and rounded rocks	Negative
MM1		
0 - 32	Brown sandy loam, friable, some gravel, small and medium-sized roots	Negative
32 - 54	Light yellowish brown very fine grain silty sand	Negative
Note: probe terminated due to root impasse		
MM2		
0 - 21	Brown sandy loam, friable, some gravel, small and medium-sized roots	Negative
21 - 56	Light yellowish brown very fine grain silty sand	Negative
MM3		
0 - 38	Dark brown sandy loam, few charcoal inclusions, few fine roots, friable, gravelly, lens of glacial material at 28 cm on the western wall	Negative
38 - 50	Glacial, gray very fine grain silty sand, some yellowish strong brown silty sand	Negative
MM4		
0 - 8	Topsoil, dark brown sandy loam, fine roots, friable, gravelly	Negative
8 - 43	Glacial, grayish brown sandy loam, faint mottling, gravelly	Negative
Note: probe terminated due to cobble impasse		
MM5		
0 - 25	Brown sandy loam, fine roots, two (2) large roots, friable	Negative
25 - 80	Yellowish brown sand, medium grain	Negative
Note: probe terminated due to root impasse		
MM6		
0 - 20	Topsoil and road fill, brown loam, 90% gravel, fine roots	Negative
20 - 33	Disturbed glacial, brown and gray sandy clay loam, little mottling	Negative
33 - 59	Brownish-yellow sand, medium grain	Negative

DEPTH BELOW SURFACE (CM)	SOIL DESCRIPTIONS	RESULTS
MM7		
0 - 15	Dark brown sandy loam, gravelly, large rounded cobbles, small and medium roots	Negative
15 - 58	Grayish brown sandy loam, compact, medium-sized roots, large rounded cobbles, few small charcoal inclusions	Negative
58 - 79	Grayish brown sandy loam mixed with strong brown, blocky	Negative
MM8		
0 - 34	Dark brown sandy loam, gravelly, large rounded cobbles, small and medium roots	Negative
34 - 50	Gray fine grain sand with mottling and charcoal inclusions, extremely compact	Negative
MM9		
0 - 10	Pale gray sandy loam, dry, 90% gravel, fine roots	Negative
10 - 57	Grayish brown medium grain sand, small roots	Negative
57 - 65	Gray fine grain sand, very compact	Negative
MM10		
0 - 67	Grayish brown medium grain sand, fine roots, gravelly, modern trash - black plastic	Negative
67 - 80	Gray fine grain sand, very compact	Negative
MM11		
0 - 20	Dark brown sandy loam, fine roots, gravelly	Negative
20 - 58	Brownish gray sandy loam, large root, and small roots	Negative
58 - 90	Gray fine grain sand, charcoal inclusions, mottling	Negative
MM12		
0 - 65	Road fill, brownish gray sand, gravelly, some subangular medium-sized cobbles	Negative
MM13		
0 - 60	Road fill, brownish gray sand, gravelly, some subangular medium-sized cobbles	Negative
MM14		
0 - 60	Roadfill, brownish gray sand, gravelly, some subangular medium-sized cobbles	Negative
60 - 66	Gray fine grain sand, mottling, very compact	Negative
MM15		
0 - 54	Road fill, brownish gray sand, gravelly, some subangular medium-sized cobbles	Negative
54 - 60	Gray fine grain sand, mottling, very compact	Negative
MM16		
0 - 12	Road fill, gray fine grain sandy loam, gravel, dry	Negative
12 - 58	Yellowish brown coarse grain sand, subrounded cobbles	Negative
Note: probe terminated due to boulder impasse		

DEPTH BELOW SURFACE (CM)	SOIL DESCRIPTIONS	RESULTS
MM17		
0 - 33	Road fill, brownish gray sand, gravelly, some subangular medium-sized cobbles, modern trash	Negative
33 - 40	Gray fine grain sand, charcoal inclusions, mottling	Negative
MM18		
0 - 57	Very dark brown sandy loam, gravelly, subrounded medium-sized cobbles, saturated, small roots	Negative
Note: probe terminated due to water table		
AB1		
0 - 23	Very dark brown gravelly loam with low root content	Negative
23 - 44	Light grayish-brown sandy clay with oxidation mottling throughout	Negative
AB2		
0 - 35	Black loam with high root content	Negative
35 - 53	Grayish brown medium-grained sand	Negative
Note: probe terminated due to rock impasse		
AB3		
0 - 38	Grayish brown medium-grained sand	Negative
38 - 80	Very dark brown gravelly loam with low root content	Negative
Note: probe terminated due to compaction		
AB4		
0 - 31	Very dark brown gravelly loam with low root content	Negative
31 - 50	Grayish brown medium-grained sand	Negative
Note: probe terminated due to water table		
AB5		
0 - 46	Dark brown loam with minimal gravel and small subrounded cobbles throughout	Negative
46 – 100	Brown sand with minimal gravel and small subrounded cobbles throughout	Negative
AB6		
0 - 38	Very dark grayish brown gravelly loam	Negative
38 - 83	Mixed sediments consisting of grayish brown and yellowish brown and loam with fragments of wood throughout	Negative
Note: probe terminated due to water table		
AB7		
0 - 15	Dark grayish brown gravelly loam with many large roots and small subrounded cobbles throughout	Negative
15 - 27	Dark yellowish brown sandy silty loam with moderate gravel content	Negative
27 - 66	Grayish brown sandy loam	Negative
Note: probe terminated due to rock impasse		

DEPTH BELOW SURFACE (CM)	SOIL DESCRIPTIONS	RESULTS
AB9		
0 - 20	Very dark grayish-brown sand with many small roots	Negative
20 - 28	Charcoal lens with burned tree fragments	Negative
28 - 53	Grayish brown sand with minimal roots	Negative
53 - 63	Dark yellowish brown sand	Negative
63 - 100	Grayish brown sand	Negative