

3.7 CULTURAL RESOURCES



Cultural resources, (archaeological deposits, historic-era buildings, structures, and objects) are important components of the environment because they illustrate how humans have used and modified the natural world. They offer a window into a shared heritage that may not otherwise be visible, especially where archaeological sites are concerned. The proposed project and wetland mitigation sites sit in a location of special importance for Native American groups in part because of ready access to fish and intertidal resources. Historically, the region was an important agricultural area and rail corridor after Euro-American settlement in Skagit County.

STUDY AREA AND METHODOLOGY

Cultural resources inventory work for the proposed project and wetland mitigation sites was performed by Shell in 2013 (Stegner et al. 2013a, 2013b), 2015 (Stegner and Jones 2015), and 2016 (Stegner 2016a). This work was conducted in compliance with Section 106 of the National Historic Preservation Act because permits issued by the U.S. Army Corps of Engineers (USACE) are required and the project was defined as a federal undertaking.

The Area of Potential Effects (APE) was defined by the USACE for the 2013 inventory (Stegner and Jones 2015; Stegner et al. 2013a, 2013b). However, under the State Environmental Policy Act (SEPA), a slightly revised and somewhat smaller study area was used in this environmental impact statement (EIS) analysis because portions of the USACE-defined APE are no longer needed for the project. The portions that are no longer needed represent alternatives that would have impacted cultural resources near the southern extent of the proposed project. The USACE APE/EIS study areas used for this EIS are shown on Figures 3.7-1 and 3.7-3. Impacts on cultural resources were analyzed based on the footprints of the proposed project and wetland mitigation sites, and the spoils disposal sites (Chapter 2, Figure 2-11). Because the potential impacts associated with cultural resources are localized, the cumulative impacts study area would be the same as that described above for direct and indirect impacts.

Select laws, regulations, and guidance applicable to cultural resources in the study area are summarized in Table 3.7-1.

Table 3.7-1 Laws, Regulations, and Guidance for Project-Related Cultural Resources

Laws, Regulations, and Guidance	Description
Federal	
Section 106 of the National Historic Preservation Act (NHPA) (16 USC 470a)	Requires federal agencies to take into account the effects of their undertakings on historic properties, and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. If the agency's undertaking could affect historic properties, the agency determines the scope of appropriate identification efforts and then proceeds to identify historic properties in the area of potential effects (APE). If the agency finds that no historic properties are present or affected, it provides documentation to the State and/or Tribal Preservation Office and, barring any objection within 30 days, proceeds with its undertaking.
State	
State Environmental Policy Act (SEPA) (RCW 43.21c; WAC 197-11)	Helps state and local agencies in Washington identify possible environmental impacts that could result from a proposed action, alternatives to the proposed action, and potential impact minimization and mitigation measures. Information learned through the review process can be used to change a proposal to reduce likely impacts and inform permitting decisions at the state and local levels.
Indian Graves and Records (RCW 27.44)	Protects Native American graves and burial grounds, encourages voluntary reporting of said sites when they are discovered, and mandates a penalty for disturbance or desecration of such sites.
Archaeological Sites and Resources (RCW 27.53)	Governs the conservation, preservation and protection of archaeological resources and the knowledge to be derived and gained from the scientific study of these resources. Establishes the Washington Department of Archaeology and Historic Preservation (DAHP) as the administering agency for these regulations.
Governor's Executive Order 05-05	Washington Governor Chris Gregoire signed Executive Order 0505 (GEO 05-05) into action in November of 2005. This order requires that all state agencies with capital improvement projects to integrate the DAHP, the Governor's Office of Indian Affairs (GOIA), and concerned tribes into their capital project planning process.
Abandoned and Historic Cemeteries and Historic Graves (RCW 68.60)	Protects and preserves abandoned and historic cemeteries and historic graves.



Laws, Regulations, and Guidance	Description
Washington State Shoreline Management Act (RCW 90.58)	Provides a statewide framework for managing, accessing and protecting shorelines of the state and reflects the strong interest of the public in shorelines and waterways for recreation, protection of natural areas, aesthetics, and commerce.

Background research for archaeological sites and cultural resource studies was conducted in December 2015 and early January 2016, using an approximate 0.5-mile research radius from these sites. This research area search of the online database of the Washington Department of Archaeology and Historic Preservation (DAHP), and the Washington Information System for Architectural and Archaeological Records Data (WISAARD), was performed for previous cultural resource studies, reports, archaeological site records, cemetery records, and National Register of Historic Places (NRHP) and Washington Heritage Register (WHR)-listed or eligible resources. In addition, DAHP's statewide predictive model layer was reviewed for probability estimates of prehistoric cultural resources. There are, at this time, no anticipated above-ground impacts associated with the project; therefore, no historic-era buildings, structures, or objects (other than NRHP- and WHR-listed properties) were included in this record search. However, four historic-era buildings, structures, or objects were recorded during cultural resource inventories conducted for the proposed project, and these are discussed below.

Historic-era buildings, structures, and objects are known to occur along the Anacortes Subdivision (e.g., historic-era rail bridges). These resources have not been included in this analysis because the proposed project is anticipated to have few, if any, impacts on them and they are generally outside the USACE-defined APE.

AFFECTED ENVIRONMENT

This section presents information covered in previous cultural resource studies conducted for the proposed project, but also correlates how those studies pertain directly to the project. A brief consideration of the precontact, ethnographic, and historic-era setting of the project is also included below. This context provides a high-level understanding of the history of the landscape in the vicinity of the proposed project.

Proposed Project

Cultural Context

Precontact

Researchers have created several chronological sequences that describe the timing and nature of cultural change in the Pacific Northwest. Ames and Maschner (1999:66) provide

Precontact – generally the time period of Native American history prior to initial contact with Euro-American goods and peoples.

Ethnographic – the time period when Native American cultures were in contact with Euro-Americans but still followed the majority of precontact lifeways.

Historic era – the period when Euro-American development and lifeways spread and grew in the region.



one of the most generalized and useful chronologies; theirs divides the chronology of prehistoric occupation into five developmental periods: Paleo-Indian, Archaic, Early Pacific, Middle Pacific, and Late Pacific. They suggest a gradual shift from small nomadic groups relying on generalized hunting and gathering, to larger sedentary groups with increasing social complexity and specialized reliance on marine and riverine resources.

Most archaeologists agree that human occupation and use of western Washington has been continuous since the late Pleistocene epoch (the geological period dating from about 2,588,000 to 11,700 years ago); archaeological evidence from sites like Manis (Waters et al. 2011) and Bear Creek (Kopperl et al. 2015) reinforce this notion. Archaeological sites from this time period are rare and suggest humans that occupied the region were familiar with the landscape and used a wide variety of resources including mega-fauna, game, fish, and plants.

Archaeological evidence of early to mid-Holocene (the epoch following the Pleistocene that dates from about 11,700 years to the present day) occupation is also not common and sites from this period are enigmatic (Chatters et al. 2011). Often these sites consist of a few pieces of flaked stone, some formed tools (e.g., leaf-shaped projectile points called Cascade points), and little else. Recently, archaeological evidence has demonstrated perishable materials were also used in everyday life (Stevenson et al. 2016). Commonly, sites from this period are identified as having an Olcott component, (flaked stone including cobble tools and lanceolate-shaped projectile points with few faunal remains) and are most probably the remnants of camps used by hunter-gatherer groups who moved in small groups and exploited a wide variety of resources.

Archaeologists believe that through the mid- to late Holocene, occupants in the region began to gather into larger groups and adopted more restricted, or specialized diets (Ames and Maschner 1999). As groups grew and economic specialization became a reality, social stratification developed as well. The emerging social stratification is indicated by increasing numbers of items of personal adornment (e.g., West Point [Larson and Lewarch 1995]). Sometime during this period, the foundation for the ethnographically observed cultural pattern was established.

Ethnographic

The proposed project lies within a region traditionally considered part of the Coast Salish cultural area within Swinomish territory (Haeberlin and Gunther 1930; Sampson 1972; Suttles and Lane 1990). The Swinomish are neighbored by the Samish and Skagit, each of whom used the general area prior to Euro-American incursion (Gibbs 1855; Smith 1940). Coast Salish groups are a Lushootseed-speaking people who share a number of cultural traits that are thought to have developed during the late Holocene, although the timing and nature of cultural development is a matter of some debate.



Traditionally, Coast Salish groups spent much of the summer and fall in small family groups gathering and storing resources for winter (Gibbs 1855; Smith 1940). Hunting parties may have ranged far for terrestrial game while other groups stayed closer to home to gather available geophytes, such as camas and other plants that could be eaten (e.g., berries), used as medicine (e.g., *orange honeysuckle*), or served as raw material for tools (Gunther 1945). Fishing was an important component of subsistence for most Coast Salish groups and according to Lane (1974) the Swinomish relied on the marine and freshwater fisheries. Shell fish would have undoubtedly served as an important component of Native Americans' subsistence in the region. Winters were spent in large cedar longhouses that were shared with extended family groups (Waterman and Grenier 1921).



Orange honeysuckle

Ethnogeography

Lane (1974) did not identify any important fishing locations near the proposed project and wetland mitigation sites; however, Waterman (Hilbert et al. 2001: 349–354) recorded at least five ethnographically important place names in the immediate vicinity including places associated with fishing (Table 3.7-2). **Hilbert et al.'s** Location 23 is described as “**a village site on a small peninsula amid the water courses at the north end of the Swinomish Slough. [The] village was strongly stockade**” (Hilbert et al. 2001:351).

Just north of this village site, **Waterman recorded a location (No. 24) that translates as “scraped throat” and was an important fishing location.** Other important places are known and recorded in the vicinity (Hilbert et al. 2001:351) of the spoils disposal sites identified in Chapter 2, Figure 2-11; however, as those locations are not finalized, the Ethnogeography is not considered in detail here. The number of recorded names for locations in the immediate vicinity of the proposed project and wetland mitigation sites demonstrates the great importance of this landscape for Native Americans.



Table 3.7-2 Ethnographic Places – Proposed Project and Wetland Mitigation Sites

Waterman Orthography	Waterman Translation	Lushootseed Orthography	Lushootseed Translation
Suksukwillya'al	None	??	??
Suxka'kuik	None	saḥḥiyuḥ	scraped throat
Ba'k ^w bakwob	Open places among the trees	baq ^w baq ^w ab	prairies
TsExbE'qsd	None	??	??
Dugwa'ltc	Protected place where there is calm water	dag ^w alč	enclosed water

Source: Hilbert et al. 2001:349-354.

Historic Era

Members of the Swinomish, Lower Skagit, and Samish tribes were signatories of the Point Elliott Treaty, which was signed in 1855 and ratified by Congress in 1859 (Ruby and Brown 1986:166, 256, 331). The treaty came after numerous widespread and deadly epidemics among the Native American population, which were brought by Euro-American settlers (Boyd 1999).

The first European excursion to the region was by Spanish explorer Juan Francisco de Eliza in 1791, **and was subsequently part of George Vancouver's expedition (Oakley 2004)**. The first Euro-American settlers in the vicinity of the proposed project arrived in the area during the middle of the 19th century and soon after began platting towns like LaConner and Mount Vernon (Willis 1973). Since Skagit County, in the vicinity of the proposed project, was such a wet area, diking and draining the land was necessary for settlement.

As the Washington territory grew, so too did the number of Euro-Americans settling in Skagit County. The population of Anacortes itself was approximately 2,000 by 1890 (Carter 2011). By the late 1880s, there was a substantial need for railroad service in the area, and the first line reached Sedro-Woolley, well east of the proposed project, by 1889 (Oakley 2004). In fact, by the turn of the 20th century, three rail lines—The Fairhaven and Southern Railway; The Seattle, Lake Shore and Eastern Railway; and the Seattle and Great Northern Railway—were all located within Skagit County (Carter 2011). These rail lines served the bustling timber and fishing industries that were taking hold in the region. As many as 11 canneries were operating in Anacortes alone by 1915, which also served as an important deep port in the region.



The March Point peninsula was dominated by deciduous and coniferous forest prior to the development of the Shell PSR and Texaco (now Tesoro) refineries in the 1950s (Skagit County 2016, Historylink 2016). These facilities were built on March Point because of the connection to deep water and nearby rail lines (Carter 2011). Since that time, these two facilities have become important to the regional economy and combine with tourism and fishing to serve as the major employing industries around Anacortes.

Previous Cultural Resource Studies

Nine cultural resource studies have been performed wholly or partially within approximately 0.5 mile of the proposed project, wetland mitigation, and potential spoils disposal sites (Table 3.7-3). Three of these studies were conducted for the proposed project by Shell (Stegner and Jones 2015; Stegner et al. 2013a, 2013b). Each of these studies is discussed below; additional, previously unavailable reports (not included in Table 3.7-3) provided by Shell through data requests, supplement the available documents. Additional information was requested because of some apparent data gaps in the initial report (e.g., justification for areas without shovel probe exploration). Shell’s supplemental information included photographs and descriptions of demonstrated field conditions not suitable for additional exploration. These new materials provided better documentation of field conditions during that survey and their results (Stegner 2016b, 2016c).

Table 3.7-3 Previous Cultural Resource Studies Within 0.5 Mile of the Proposed Project and Wetland Mitigation Sites

Study Area	NADB	Title	Cultural Resources Identified in Study Area ¹	Citation
Proposed Project and Wetland Mitigation Sites	1349367	Resource Protection Planning Process Identification of Prehistoric Archaeological Resources in the Northern Puget Sound Study Unit	None	Blukis Onat 1987
Proposed Project	1347363	Cultural Resource Investigations for Washington State Department of Transportation’s (WSDOT) State Route (SR) 20: Thompson Road Signal and Safety Project, Skagit County, Washington	None	Luttrell 2006



Study Area	NADB	Title	Cultural Resources Identified in Study Area ¹	Citation
Proposed Project	1352459	Archaeological Investigation Report: Turner's Bay Salt Marsh Restoration Project, Skagit County, Washington	None	Bush and Smart 2009
Proposed Project	1682446	March's Point Site Cultural Resource Study: Samish Indian Nation Fee-to-Trust Project	None	AES 2012
Proposed Project	1683920	Cultural Resource Inventory Report – Shell Puget Sound Refinery Crude by Rail East Gate Project, Anacortes, Skagit County, Washington	None	Stegner et al. 2013a
Proposed Project	1687514	Cultural Resource Inventory Addendum Report for the Shell Puget Sound Refinery Crude by Rail East Gate Project, Anacortes, Skagit County, Washington	45SK513; 45SK514	Stegner et al. 2013b
Wetland Mitigation Site		Cultural Resource Inventory Report for the Shell Puget Sound Refinery Poplar Plantation Property Wetland Mitigation Project, Anacortes, Skagit County, Washington	Three Buildings, Structures, or Objects; 45SK537	Stegner and Jones 2015
Wetland Mitigation Site		Archaeological Monitoring of Geotechnical Investigations at the Proposed Setback Dike for the Shell Puget Sound Refinery Poplar Plantation Property Wetland Mitigation Project, Anacortes, Skagit County, Washington	None	Stegner 2016a



Study Area	NADB	Title	Cultural Resources Identified in Study Area ¹	Citation
Proposed Kelleher Road Overflow Pit APE	1681719	Archaeological Assessment of the DeBoer Farm Conservation Reserve Enhancement Program (CREP) Buffer, Burlington, Skagit County, Washington	None	Hovezak and Koziarski 2011
Proposed Kelleher Road Overflow Pit APE	1685667	Summary of the Pedestrian Survey and Construction for the Kara Allen 2012 EQIP Project, Skagit County, Washington (DAHP Log No. 022013-11-NRCS)	None	Randolph 2014

Source data in table available in WISAARD.

1. Archaeological sites are identified by unique Smithsonian trinomials that generally follow the format "State Number in alphabetical order/County Abbreviation/Unique sequential number for that county"

Shell (Stegner et al. 2013a, 2013b) conducted the cultural resource inventory for the proposed rail unloading facility (Figure 3.7-1) in March, July, and August of 2013. The inventory work included traditional background research and historic map review, as well as surface and subsurface surveys. The surface survey consisted of pedestrian transects spaced at 20-meter intervals, included 100-percent coverage of the construction footprint, and was conducted in three phases.

A total of 110 shovel probes were excavated to approximately 50 centimeters deep during the subsurface survey. These probes were placed in areas that were identified as high probability for cultural resources and that were neither inundated with water nor previously disturbed. Examples of heavily vegetated and inundated areas that were not excavated can be seen in Figure 3.7-2. Four previously unrecorded archaeological sites (45SK512, 45SK513, 45SK514, 45SK515) were identified, and one historic-era structure (Seattle and Montana/Great Northern Anacortes to Rockport Rail Line) was recorded during this inventory work (see discussion below).





DATA SOURCE: (AECOM 2015, NAIP 2013, Skagit County 2015, Stegner et al. 2013a and 2013b, WSDOT 2015)

- ▲ Shovel Probes
- Wetland
- Local Road
- USACE APE/EIS Study Area
- Tidal Marsh
- State Highway
- Anacortes Subdivision

Figure 3.7-1
USACE APE/EIS STUDY AREA
AND SURVEY – PROPOSED PROJECT SITE



Figure 3.7-2 Examples of Conditions Encountered Where Subsurface Surveys Were Not Conducted at Proposed Project and Wetland Mitigation Sites



Source: Stegner 2016a.



Shell conducted cultural resource inventory work at the wetland mitigation site, an approximately 100-acre parcel, in July and September 2015 (Figure 3.7-3) (Stegner and Jones 2015). The surface survey consisted of pedestrian transects spaced at 20-meter intervals and included 100-percent coverage of the wetland mitigation area. A total of 77 shovel probes were excavated during the subsurface survey. These probes were placed in areas that were identified as high probability for cultural resources and that were neither inundated with water nor previously disturbed. One archaeological site (45Sk537), one building, one structure, and one object (a ditch, a pump house, and a dike) were recorded during this field effort (see discussion below).

In 2016, Shell conducted geotechnical investigations for a new setback dike on the wetland mitigation site and this effort included archaeological monitoring (Stegner 2016a). Archaeologists monitored 20 geotechnical borings and six groundwater monitoring wells that reached final depths of approximately 45 feet. Geotechnical bores were sampled using split spoon samplers and did not yield evidence of archaeological deposits.

Astrida Blukis Onat (1987) provided a review of the archaeological record in Skagit and other northern Puget Sound counties. This study did not record any archaeological sites within or immediately adjacent to the proposed project and wetland mitigation sites. Luttrell (2006) performed a cultural resource inventory consisting of surface and subsurface surveys along State Route (SR) 20, approximately 0.2 mile from the proposed project. No archaeological sites were recorded during this inventory. AES (2012) conducted a cultural resource inventory, also located approximately 0.2 mile south of the proposed project, and identified two previously unrecorded archaeological sites. These two archaeological resources were given temporary field numbers (CR-1 and CR-2); however, no formal records exist in WISAARD and these sites have not been evaluated for NRHP eligibility. Bush and Smart (2009) identified substantial disturbance but no intact archaeological deposits along Stevenson and Similk Bay roads during their archaeological survey.

In the vicinity of the potential spoils disposal sites, one study was conducted for a Conservation Reserve Enhancement Program (CREP) streamside vegetation buffer planting project (Hovezak and Koziarski 2011) and another report summarized the pedestrian survey and construction monitoring of a stream restoration project (Randolph 2014) (Table 3.7-3). No historic properties identified during fieldwork were included in either report.



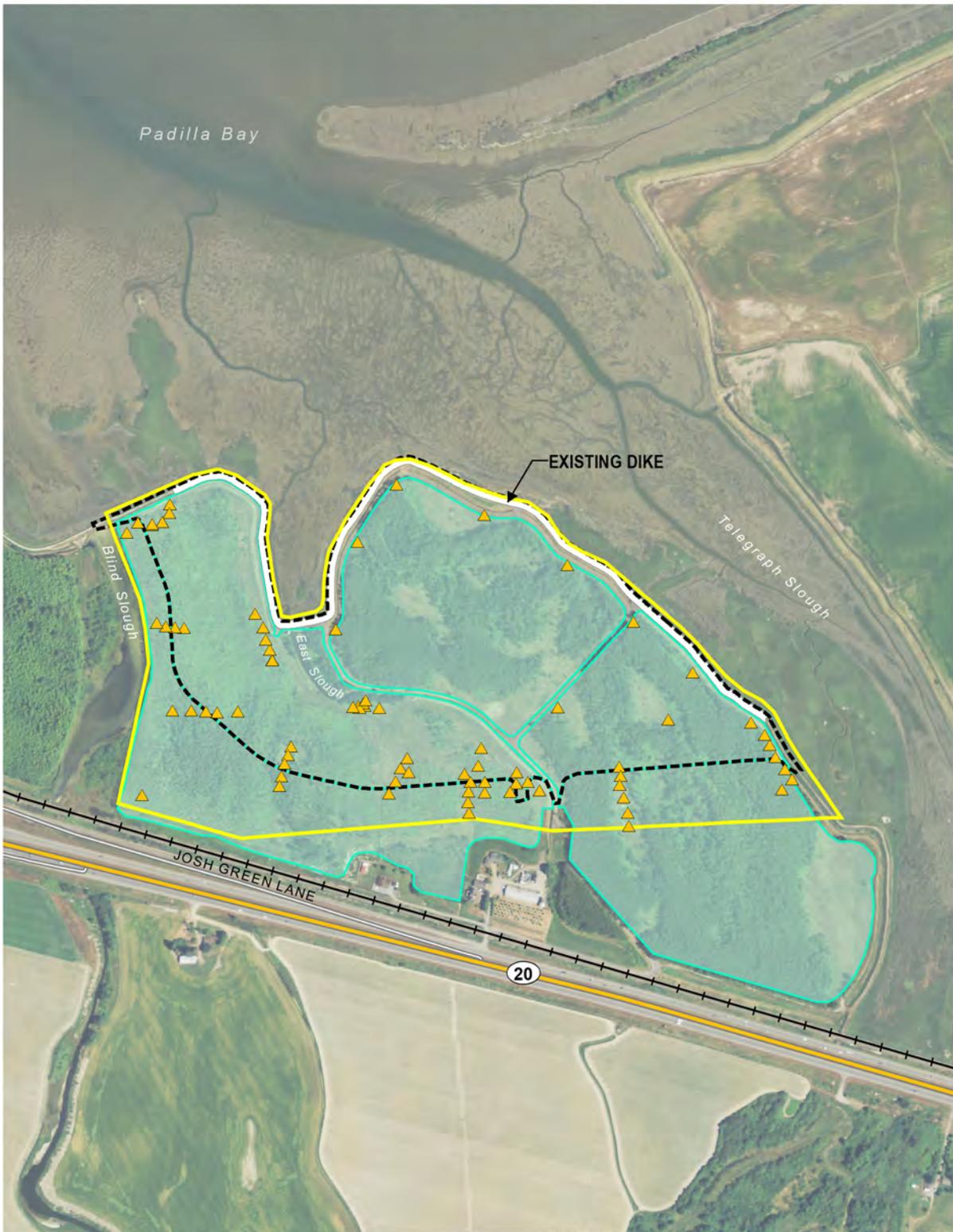


Figure 3.7-3
USACE APE/EIS STUDY AREA AND SURVEY – WETLAND MITIGATION SITE

Shovel Probes
 USACE APE/EIS Study Area
 Wetland
 Proposed Wetland Mitigation Site
 Existing Levee
 Anacortes Subdivision
 Local Road
 State Highway

DATA SOURCE: (AECOM 2016, NAIP 2013, Skagit County 2015, Stegner and Jones 2015, WSDOT 2015)

0 200 400 Feet
 N



Previously Recorded Cultural Resources

Archaeological Sites

A total of 14 archaeological sites have been previously recorded within 0.5 mile of the proposed project and wetland mitigation sites, as well as the potential spoils disposal sites during the cultural resource inventory work conducted for the Section 106 compliance portion of this project (Table 3.7-4). Five of the archaeological sites have been identified as dating to the precontact period. However, none of these is within the boundaries of the proposed project, wetland mitigation, or the potential spoils disposal sites. The remaining sites date to the historic era (these are discussed in greater detail below). The 14 identified archaeological sites within the 0.5-mile study area are noted in Table 3.7-4.

Three historic-era archaeological sites (45SK512, 45SK513, and 45SK514) are within or adjacent to the proposed project boundaries; and a single historic-era archaeological site (45SK537) is within the wetland mitigation area. Sites 45SK512, 45SK513, and 45SK514 were recommended not eligible for listing in the NRHP. Site 45SK512 is adjacent to the project and has not formally been evaluated for NRHP eligibility. Recently, Matthew Sterner (personal communication, **January 21, 2016**) concurred with the USACE's recommendation that 45SK537, 45SK513, and 45SK514 are not eligible for listing in the NRHP (Stegner 2015d, Sterner 2016).

Table 3.7-4 Previously Recorded Archaeological Sites in Study Area

Location	Resource Number/ Name	Resource Type – Description	Precontact or Historic	Citation	NRHP Status
Within 0.25 mile of Proposed Project Site	45SK140	Lithic Scatter – “Leaf shaped points, large stemmed and corner removed”	Precontact	Mattson 1980	Unevaluated
Adjacent to Proposed Project Site	45SK512	Historic Debris Scatter – domestic debris	Historic era	Stegner 2013a	Unevaluated
Within Proposed Project Site	45SK513	Historic Foundation and Debris Scatter – three foundations and misc. debris	Historic era	Stegner 2013b	Determined Not Eligible (Sterner 2016)
Within Proposed Project Site	45SK514	Historic Agricultural Features – concrete troughs or basins	Historic era	Stegner 2013c	Determined Not Eligible (Sterner 2016)
Within Approx. 500 feet of Proposed Project Site	45SK515	Precontact shell midden and Historic Logging Camp – Shell midden in cut bank and historic debris	Precontact and Historic era	Stegner 2013d	Unevaluated



Location	Resource Number/ Name	Resource Type – Description	Precontact or Historic	Citation	NRHP Status
Within Approx. 750 feet of Proposed Project Site	45SK527	Historic Structure, Agriculture, Homestead, and Debris Scatter/ Concentration – Domestic debris and barn	Historic era	Stegner 2015a	Unevaluated
Within Approx. 750 feet of Proposed Project Site	45SK534	Historic Structure, Agriculture, Debris Scatter/ Concentration – rail car, concrete features	Historic era	Stegner 2015b	Unevaluated
Within Approx. 750 feet of Proposed Project Site	45SK535	Historic Structure, Agriculture, Homestead, and Debris Scatter/ Concentration – domestic debris, well burned wood	Historic era	Stegner 2015c	Unevaluated
Approx. 0.5 mile of Proposed Project Site	CR-1 (temp)*	Historic Structure and Debris Scatter	Historic era	AES 2012	Unevaluated
Approx. 0.5 mile of Proposed Project Site	CR-2 (temp)*	Debris Scatter	Historic era	AES 2012	Unevaluated
Within Wetland Mitigation Site	45SK537	Historic Debris Scatter/ Concentration	Historic era	Stegner 2015d	Not Eligible
Approx. 0.5 mile southeast of Proposed Gibraltar Road Pit	45SK17	Shell Midden, Cairn Burials	Precontact	Bryan 1953	Unevaluated
Approx. 0.5 mile southeast of Proposed Wilbur Road Pit	45SK92 Swinomish Channel Midden #2	Shell Midden	Precontact	Munsell 1974a; Conca 1985a	Unevaluated
Approx. 0.5 mile southeast of Proposed Wilbur Road Pit	45SK93	Shell Midden	Precontact	Munsell 1974b; Conca 1985b	Unevaluated

* Indicates sites not formally recorded in WISAARD but identified in cultural resources report.



The general archaeological record in the vicinity of the proposed project and wetland mitigation sites demonstrates the importance of this landscape for Native Americans as well as historic-era settlement and development. Archaeological site 45SK140 is one of the older recorded archaeological sites in the region (Mattson 1980). The shell midden observed by Stegner (2013d) attests to the importance of the March Point area for Native American subsistence and settlement.

Cemeteries

One cemetery has been documented within 0.5 mile of the proposed project, wetland mitigation, and potential spoils disposal sites. Approximately 12 circular cairn burials were recorded with shell midden deposits as part of archaeological site 45SK17 (Bryan 1953). The cairns were on top of a bank above the beach near the alluvial fan and small stream adjacent to the beach (Bryan 1953). The cairn burials are just north of the slight promontory on the west side of Similk Bay. The burials and site 45SK17 are approximately 0.5 mile southeast of the proposed Gibraltar Road Pit spoils disposal site.

Historic-Era Buildings or Structures

There are four previously recorded historic-era buildings, structures, or objects within 0.5 mile of the proposed project and wetland mitigation sites (Table 3.7-5). Three of these resources (dike, pump house, and a ditch) were identified by Stegner and Jones (2015) within the proposed wetland mitigation area. These three resources were recommended not eligible for listing in the NRHP at the time of the 2015 study. Recently, the USACE determined that these resources are not eligible for listing in the NRHP, and DAHP concurred with these determinations (Jenkins 2015; Matthew Sterner, personal communication January 21, 2016).

The fourth historic-era building, structure, or object, is a segment of the Seattle and Montana Rail line constructed in the late 19th century that was recorded during fieldwork conducted by Stegner et al. (2013b) for a portion of the proposed project. That portion of their study has since been removed from the proposed project footprint (Table 3.7-4). The rail line was recommended not eligible for the NRHP; however, the USACE determined it eligible for listing in the NRHP **and also determined that the proposed project would have “No Adverse Effect” on the resource. Additionally, DAHP concurred with the USACE’s determinations of eligibility and that the project would have “No Adverse Effect” on the NRHP-eligible rail line or listed historic and cultural resources in the proposed project area (Holter 2014).**



Table 3.7-5 Previously Recorded Historic-Era Buildings or Structures in Study Area

Location	Resource Name	Resource Type Description	Precontact or Historic	Citation	National Register of Historic Places Status
Within Wetland Mitigation Site	Poplar Plantation - Dike	Dike	Historic era	Jones 2015a	Not Eligible
Within Wetland Mitigation Site	Poplar Plantation - Pump House	Pump House	Historic era	Jones 2015b	Not Eligible
Within Wetland Mitigation Site	Poplar Planation - Ditch	Ditch	Historic era	Jones 2015c	Not Eligible
Adjacent to Proposed Project Site	Seattle and Montana/Great Northern Anacortes to Rockport Rail Line	Historic Rail Line	Historic era	Stegner 2013e	NRHP Eligible

Historic Map Research

Stegner et al. (2013a, 2013b) and Stegner and Jones (2015) provide a detailed analysis and review of historic maps that include the proposed project and wetland mitigation sites. The maps included electronically available General Land Office (GLO) Plats, U.S. Coast and Geodetic Survey Topographic Sheets (T-sheets), Metsker Maps, aerial photographs, and United States Geographic Survey (USGS) topographic maps that document the history of land use in the vicinity of the proposed project since the last quarter of the 19th century.

In general, the maps analyzed by the two previous studies performed for the proposed project indicate limited development and use of the land for agricultural purposes (Stegner and Jones 2015; Stegner et al. 2013a, 2013b). Prior to the construction of the existing Shell PSR facility, structures, apparently built in the 1940s, existed on the southern portion of the proposed project site, but these were razed in the late 1950s. Analysis of historic-era aerial photographs and maps that cover the wetland mitigation site demonstrates the dynamic nature of that landscape; a number of changes in the shoreline are noted through time (Stegner and Jones 2015). These changes are at least partially a result of a system of dikes and levees that were constructed during the first half of the 20th century.



Impacts to Historic-Era buildings and other cultural resources

During scoping for the EIS, a number of comments were received from individuals and some entities that suggested the proposed project would pose substantial impacts to historic-era buildings, structures, objects, and gathering places with historic use in the form of noise and air pollution. Noise impacts are considered in detail in Chapter 3.9 – Noise and Vibration. Although historic-era buildings, structures, and objects are known within the Anacortes Subdivision (Figure 3.7-1) they already exist within a highly active rail corridor. Rail lines were some of the earliest transportation corridors in the region; with the first rail bridge being built over the Skagit River in 1893 (Caldbeck 2010) and a boom in rail line construction in the vicinity of Mount Vernon and Anacortes throughout the first half of the 20th century.

Historic-period 19th century plats from the U.S. Surveyor General (USSG), GLO, and other historic atlases (Metsker) were reviewed for the presence of structures, sites, and features that might be extant within each of the proposed spoils disposal sites (Table 3.7-6). In general, there were privately-owned parcels of land and roadways within the spoils disposal sites, and the surrounding vicinities.

Table 3.7-6 Features Documented on Historic-Period Maps and Plats in Vicinity of the Proposed Spoils Disposal Sites

TRS Location*	Reference	Description
T34N R2E S8 Gibraltar Rd. Pit	USSG 1871	Within APE: no features identified.
	Metsker 1941	Within or adjacent to APE: parcels owned by David Tozer, Edson Stevens, Albert Stevens, Rex Stevens, J.R. Stevens, and Myrtle F. Johnson. In vicinity: Pac. Hwy No. 2, State Road No. 14, other privately-owned parcels and residential subdivisions.
	Metsker 1972	Within or adjacent to APE: parcels owned by Grace Turner, Edson Stevens, Legna Stevens, W.C. Palm, J. R. Stevens, and D & G & A Penter. In vicinity: Pac. Hwy No. 2 and other roadways, other privately-owned parcels (including Sch. 103) and residential subdivisions.



TRS Location*	Reference	Description
T34N R2E S23 Wilbur Rd. Pit	USSG 1874	Within APE: no features identified. In vicinity: approximately 0.75 mile to west is the Telegraph Road bearing roughly north-south. On DAHP GLO Overlay, shows a cemetery on the Swinomish Reservation approximately 0.5 mile to the east of the APE.
	Metsker 1941	Within or adjacent to APE: parcels owned by McLeod, Bob Tahtla, and Chas. Seatit. In vicinity: roadways, other privately-owned parcels.
	Metsker 1972	Within or adjacent to APE: parcels owned by Erickson & Svendsen Mill Co. and unidentified parcels. In vicinity: roadways, trails, and other privately-owned parcels (such as by Jack Day).
T35N R4E S9 & 16 Kelleher Rd. Overflow Pit	USSG 1873	Within APE: no features identified.
	Metsker 1925	Within or adjacent to APE: parcels owned by Silas M. Butler, Butler Lbr. Co., J.W. Taylor, E.T. Idgens, J. White, M. Murray (?), Jno. Bloomquist, and state school land, and roadways. In vicinity: roadways and other privately-owned parcels.
	Metsker 1941	Within or adjacent to APE: parcels owned by Silas M. Butler, Butler Bros., Butler Lbr. Co., state school land, J.W. Taylor, F.M. Elliott, C.L. Miller, J. White, roadways, and Olympia Marsh Ext. Ditch. In vicinity: roadways and other privately-owned parcels.
	Metsker 1972	Within or adjacent to APE: parcels owned by Thelma Butler, Fred Butler, S. DeBoer, J.W. Taylor, and state land, and roadways. In vicinity: roadways and other privately-owned parcels.

* TRS refers to Township, Range, and Section.

ENVIRONMENTAL IMPACTS

No Action Alternative

Because no construction or operation would take place under the no action alternative, there would be no impacts to cultural resources. Previously unidentified archaeological deposits would remain unidentified, unless discovered through the development of some other project in the future. Unevaluated and NRHP-eligible archaeological sites and historic buildings, structures, and objects, would not be affected by the proposed project and, therefore, would retain their current levels of integrity.



Proposed Project

While evaluating the impacts of the proposed project on archaeological resource and historic-era buildings, structures, and objects, it is also important to consider the geographic scope of impact assessment. The analysis presented here is generally limited to the APE included for investigation in USACE permit application documentation (e.g., Stegner et al. 2015). A qualitative analysis of possible impacts to historic-era resources is presented below to address potential concerns about these property types. However, these historic-era property types (excluding archaeological sites) are typically outside the APE used for USACE permit applications for the proposed project.

Direct Impacts

Archaeological Resources

The proposed project would disturb previously recorded historic-era archaeological sites (45SK513, and 45SK514) located within or immediately adjacent to the proposed project site boundaries. Stegner et al. (2013) recommended these sites not be eligible for listing in the NRHP. These sites were determined not eligible for listing in the NRHP by the USACE and Sterner (2016) concurred with these determinations.

At the proposed wetland mitigation site, archaeological site 45SK537 would likely be disturbed by project activities; however, DAHP (Matthew Sterner, personal communication, January 21, 2016) has concurred with the USACE recommendation that this site not be eligible for listing in the NRHP.

Since the March Point area is important for Native American land use, as evidenced by the presence of nearby site 45SK140, there is a possibility that archaeological sites exist within the proposed project vicinity but were not observed during cultural resource inventory work. Potential sites may range from occupation locations, to fishing or resource procurement and processing areas. Such resources would be an important discovery and would help to better illustrate Native American subsistence, land use, and settlement practices (for additional information see Chapter 3.8 – Treaty and Traditionally Used Resources).

No archaeological sites or other cultural resources have been documented within, or in the immediate vicinity of, the potential spoils disposal sites. Because these locations are operating pits and no expansion is planned for this project, no cultural resource consequences are anticipated.

Historic-Era Resources

No previously documented historic-era buildings, structures, or objects are located within the footprint of the proposed project site. Although the proposed project includes a relatively new type of train traffic (i.e., crude oil transport) there is no substantial increase in the impact of this type of train on historic-era resources compared with other types of train traffic (e.g., passenger rail).



Three previously documented historic-era buildings, structures, or objects are located within the proposed wetland mitigation site. These were recommended not eligible for listing in the NRHP by Stegner and Jones (2015). The USACE agreed with this recommendation and determined the resources not be eligible for the NRHP; additionally, DAHP concurred with the determination made by the USACE (Matthew Sterner, personal communication January 21, 2016). It is unlikely that these resources would be eligible for listing in the WHR for the same reasons they do not meet NRHP eligibility criteria. As a result, the removal, destruction, or modification of these resources does not constitute a substantial impact, pending the resources determination of ineligibility for listing on the WHR.

The towns and development of the region have, in many ways, hinged on the growth of the rail industry (see discussion above). The proposed project would result in the arrival, on average, of one train per day along the Anacortes Subdivision. These bridges regularly carry train traffic and the proposed project would not substantially increase this traffic (see Chapter 3.15 – Rail Traffic and Transportation). This increase would not likely affect railroad bridges that were constructed during the historic era.

No historic-era resources are noted in the vicinity of the potential spoils disposal sites. As such, no cultural resource consequences are anticipated.

Cumulative Impacts

As described above, the proposed project would not disturb any known NRHP-listed or eligible archaeological sites, historic-era buildings, structures, or objects. Within the study area, there has been significant agricultural, industrial, commercial, and residential development. With this development, there is the potential that NRHP-listed or eligible archaeological sites, historic-era buildings, or objects have been disturbed. However, impacts would have been mitigated. Therefore, no cumulative impacts are anticipated.

MITIGATION MEASURES

Avoidance and Minimization

In the inventory work for both the proposed project and wetland mitigation sites, archaeological monitoring was recommended during construction. Archaeological monitoring would take place where subsurface inventory work does not reach the depth of proposed ground disturbance and where subsurface inventory work cannot be performed. Shell would develop a monitoring plan to be approved by DAHP and the tribes prior to initiation of ground-disturbing activities.

Mitigation

No mitigation is necessary for the impacts that the project would have on the previously recorded archaeological sites or historic-era resources. Resources within the APE, as defined by the USACE, have been determined not eligible for listing in the NRHP by the USACE and DAHP. No NRHP-listed or eligible historic resources were found within the wetland mitigation site; therefore, no mitigation measures are required.



Shell would develop and implement an Unanticipated Discovery Plan during construction when archaeological monitors are not present. If archaeological deposits were encountered during construction, the provisions of the Unanticipated Discovery Plan would be followed. Consultation with local law enforcement authorities, the DAHP, tribes, and other interested stakeholders would be initiated to determine proper treatment and/or mitigation. In such cases, Shell would provide for a site inspection and evaluation by a professional archaeologist to ensure that all possible valuable archaeological data were properly salvaged or mapped.

