

12.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 sits 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.

This chapter discusses the baseline conditions and potential impacts on cultural resources from the proposed project and measures to mitigate those impacts. The term “cultural resource” generally refers to resources that are potentially eligible for listing in or are listed in the National Register of Historic Places (NRHP), which includes archaeological sites, buildings, structures, and districts; sites listed in the Washington Heritage Register (WHR); Traditional Cultural Properties, Cultural Landscapes; and cemeteries and burial sites, which carry additional protection under state and federal laws. Archaeological resources can be prehistoric, historic, or both, and are found at the ground surface or below ground surface. Prehistoric archaeological sites are generally considered to have been occupied before the arrival of European Americans and historic archaeological sites are considered to have been occupied after the arrival of European Americans. Buildings and structures are collectively referred to here as “architectural resources” or the “built environment,” and are typically associated with resources that date after European American contact with Native American groups.

Cultural resources under consideration for potential project impacts do not need to be formally listed in the WHR or the NRHP, as long as they meet the criteria for listing. To be eligible for listing in the WHR, a resource or property must meet the following criteria:

- Be at least 50 years old
- Retain historic integrity (i.e., important characteristics from its historic period of construction)
- Have historical significance at the local, state, or national level (Washington State Department of Archaeology and Historic Preservation 2016)

To be eligible for listing in the NRHP, a cultural resource must meet the following criteria:

- Be at least 50 years old
- Retain historic integrity
- Meet at least one of the following criteria:
 - Criterion A. The resource is associated with significant historical events that contribute to broad patterns of history.
 - Criterion B. The resource is associated with the lives of people who are significant in our past.

- Criterion C. The resource represents a distinctive type, period, or method of construction.
- Criterion D. The resource is likely to provide important information about history or prehistory (U.S. Department of the Interior, National Park Service 1997).

Traditionally used resources are important because of the role they play in, and their intrinsic value to tribal lifeways and culture, and in the exercise of tribal treaty reserved rights. The potential impacts on access to treaty and traditionally used resources are addressed in Chapter 7, Marine and Nearshore Resources, and Chapter 11, Social and Economic Environment.

12.1. LAWS, REGULATIONS AND GUIDANCE FOR CULTURAL RESOURCES

Table 12-1 provides a summary of the laws, regulations, and guidance applicable to cultural resources as defined in this section.

Table 12-1: Laws, Regulations, and Guidance for Cultural Resources

Regulation, Policy, or Guideline	Description
<i>Federal</i>	
Section 106 of the National Historic Preservation Act (NHPA)	Requires federal agencies to take into account the impacts of their undertakings on historic properties listed in, or eligible for listing in, the NRHP and to provide the Advisory Council on Historic Preservation with the opportunity to comment on the undertaking.
<i>State</i>	
Abandoned and Historic Cemeteries and Historic Graves, RCW 68.60	Protects Native Indian burial sites, graves, cairns, and glyptic markings from deliberate destruction, injury, or removal.
Advisory Council on Historic Preservation, WAC 25-12	Any member of the public may submit NRHP nominations to the State Historic Preservation Officer for review.
Archaeological Sites and Resources, RCW 27.53	Protects archaeological sites on public and private lands and provides authority to issue civil penalties to enforce the provisions of permits issued for archaeological activities.
Governor's Executive Order 05-05	State capital construction projects must involve the DAHP, Governor's Office of Indian Affairs, and concerned tribes in the planning process.
Indian Graves and Records, RCW 27.44	Protects Native Indian burial grounds, historic graves, and glyptic markings.

The Washington State Department of Archaeology and Historic Preservation (DAHP) is the state agency with expertise that advocates for cultural resources protection. DAHP evaluates potential impacts on properties that are eligible for listing in the NRHP, the WHR, and local registers.

12.2. STUDY AREA AND METHODOLOGY

This section describes the specific considerations used to assess potential impacts of the proposed project on cultural resources.

12.2.1. Study Area

The study area includes the Area of Potential Effects (APE) and the marine vessel transportation route. The APE represents the geographic extent of potential direct and indirect impacts caused by the construction and operation of the proposed project on cultural resources, if any such resources exist within the refinery. The proposed APE encompassed the following geographic

areas as shown on Figure 12-1 which depict the Tesoro Anacortes Refinery on March Point. The study area used to evaluate potential impacts on cultural resources in this chapter includes:

- Areas of new ground disturbance impacted by the proposed project that were not previously surveyed, including the new MVEC System and the associated natural gas pipeline, NHT, Isom Unit, ARU, New Tanks Area, Gate 10 Access Refinement, and potential laydown yard.
- Cultural resources located within the line of sight of the refinery that could be visually impacted by the proposed project.
- Marine vessel transportation routes that would be used to transport materials associated with the proposed project.



Figure 12-1: Area of Potential Effects for the Proposed Project

12.2.2. Methodology

To evaluate potential impacts on cultural resources in the APE, baseline conditions for these resources were identified through background research, including a records review of known cultural resources within the APE to:

- Understand the affected environment within the APE
- Determine the types of cultural resources that might be present within the APE.
- Determine whether any previously recorded cultural resources are present within the APE

To further assess the presence or absence of cultural resources, archaeological and architectural resource field investigations were completed within the APE. Data used to support this analysis are described in the technical memoranda prepared by CH2M Hill on behalf of Tesoro (collectively referred to as Tesoro) as listed below and included in Appendix 12-A, Historical Assessment and Archeological Resources Technical Memorandum:

- *Tesoro Anacortes Clean Products Upgrade Project Historical Assessment for Built Environment Resources*
- *Tesoro Anacortes Clean Products Upgrade Project Archaeological Resources Technical Memorandum*

The records review used the following sources of information:

- A search of DAHP's Washington Information System for Architectural and Archaeological Records Database (WISAARD) for previously completed cultural resources studies and previously documented archaeological sites within a 1-mile radius of the Tesoro Anacortes Refinery and previously documented architectural resources within the refinery.
- A review of non-restricted listed properties in the NRHP to identify architectural resources within a 1-mile radius of the Tesoro Anacortes Refinery.
- A review of historic maps, plans, and lists of refinery improvements since 1955.

Field investigations were conducted by Tesoro in 2016 to identify cultural resources in the APE, but not along the marine vessel transportation route (Appendix 12-A). The following archaeological and architectural field methods were used:

- The results of the geotechnical borings in the New Tanks Area identified up to about 7 feet of modern fill overlying native soils (AECOM 2016, see also Chapter 3, Geologic Resources). Fill sediments are not expected to contain archaeological resources that retain integrity. Therefore, the archaeological field investigation in the New Tanks Area consisted of mechanically excavating six trenches measuring approximately 4 feet by 10 feet to a depth of 8 feet below ground surface (bgs) to identify potential archaeological resources below the modern fill within the native soils. Subsurface investigations were not conducted in areas of ground disturbance as they had been previously disturbed by construction activities within the refinery and were therefore not expected to contain cultural resources.

- The architectural inventory included a visual inspection of the refinery by vehicle to collect photographic documentation and develop descriptions of architectural buildings and features older than 55 years at the refinery. Individual resources were recorded on Washington Historic Property Inventory forms in WISAARD.

The results of the vessel traffic assessment and the marine spill modeling presented in Chapter 13, Marine Transportation, were used to analyze the potential impacts on cultural resources from increased marine vessel traffic and potential spills of xylene or reformat in the marine environment. The results of the assessment of marine vessel wakes, as presented in Chapter 7, Marine and Nearshore Resources, were used to analyze the potential impacts on cultural resources along the marine vessel transportation route.

Potential impacts on cultural resources that were evaluated as part of this analysis were determined through a public scoping process and by considering the potential to impact these resources during construction and operation of the proposed project. Potential impacts on cultural resources that could occur during both construction and operation of the proposed project were considered in the analysis.

A series of scoping meetings were conducted during the scoping period for the proposed project, with the public, tribes, and government agencies providing verbal and written comments. The primary comments related to cultural resources that are addressed in this section include:

- Archaeological resources and historic buildings
- Cultural resources of tribal concern
- Fidalgo Bay and Padilla Bay, which hold important cultural and historic significance

While evaluating the impacts of the proposed project on cultural resources, it is important to consider the geographic extent, duration, and magnitude of impacts. The duration of impacts on cultural resources includes short- and long-term impacts. Short-term impacts are considered to be temporary and long-term impacts are considered to be permanent. The magnitude of impacts that the proposed project would have on cultural resources identified as part of the research and field investigation (Appendix 12-A) include actions that result in the physical alteration, destruction, loss of cultural resources (direct impact) or that result in visual impacts (indirect impact) on cultural resources. The direct and indirect impacts could be short or long term and could occur during construction and/or operation of the proposed project.

A potentially significant impact on cultural resources is one that would result in a direct or indirect disturbance that diminishes the significance or integrity of a site listed or eligible for listing in the WHR or NRHP; traditional cultural properties or landscapes; and cemeteries and burial sites.

The results of the analysis are summarized using a significance assigned for each potential adverse impact on cultural resources. The process for characterizing the significance of each potential impact involved analyzing the magnitude, geographic extent, and duration of the impact (see Chapter 1, Section 1.7, Methodology). Based on the results of this analysis, the significance of each potential adverse impact was then assigned to one of two categories: *less than significant*

or *potentially significant*. Criteria for assessing the significance of potential adverse impacts on cultural resources are included in Appendix 1-B, Impact Criteria Tables, Table 1.B-10.

12.3.AFFECTED ENVIRONMENT

This section describes the existing environmental conditions related to cultural resources that could be impacted by the construction and operation of the proposed project.

12.3.1. Cultural History

12.3.1.1. *Archaeological Background*

Researchers have created several chronological sequences that describe the timing and nature of cultural change in the Pacific Northwest. Ames and Maschner (1999) provide 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 and Punke. 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 archaeological site in Southern Puget Sound [Larson and Lewarch 1995]). Sometime during this period, the foundation for the ethnographically observed cultural pattern was established.

12.3.1.2. *Ethnographic Background*

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 territory is 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).

Lane (1974) did not identify any important fishing locations near the proposed project; however, Waterman (Hilbert et al. 2001) recorded ethnographically important place names in the vicinity including places associated with fishing. 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).

Just north of this village site, Waterman recorded a location (No. 24) that translates as "scraped throat" and was an important fishing location. The number of recorded names for locations in the area of the proposed project demonstrates the great importance of this landscape for Native Americans.

12.3.1.3. *Historical Background*

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). 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, Carter 2011). 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.

12.3.2. Inventory of Resources

Background review and field investigations for cultural resources and historic properties were carried out as part of the baseline studies for the proposed project (see Appendix 12-A).

12.3.2.1. *Archaeological Resources*

The research results documented two previously conducted archaeological surveys within the proposed project APE. These surveys were conducted and reported by Smart and Rollins (2010) and Sharpe and McClintock (2011) (Table 12-2). Figure 12-1 depicts previously surveyed areas within the refinery. The general archaeological record in the vicinity of the proposed project 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 et al. (2013) attests to the importance of the March Point area for Native American subsistence and settlement.

Table 12-2: Previous Archaeological Surveys within the Tesoro Anacortes Refinery

Preparer (Year)	Title
Smart and Rollins (2010)	Archaeological Investigation Report: West March Point Beach Nourishment Project, Skagit County, Washington
Sharpe and McClintock (2011)	Proposed Tesoro Crude Railcar Unloading Facility, Cultural Resources Report

Source: McClintock and Sheldon 2016 (Appendix 12-A)

The archaeological field investigation was conducted within the New Tanks Area in February 2016 to determine if cultural deposits were present in the native soil below the overlying fill. No NRHP-eligible or listed resources and no WHR-eligible or listed resources were identified within the APE as a result of this investigation.

12.3.2.2. *Architectural Resources*

The historical assessment of the built environment identified two architectural resources, the “Tesoro (Formerly Shell) Refinery” and the “Tesoro Refinery Wharf” within the APE (Table 12-3). The refinery property, including the wharf, was assessed for its potential eligibility as a historic district. The results of the survey and inventory concluded that the refinery property was not eligible for the NRHP or WHR as a historic district and that no historical resources comprising the refinery property, including the wharf, are individually eligible for listing in the NRHP or WHR (see Appendix 12-A). As a result, no NRHP-eligible or listed resources and no WHR-eligible or listed resources were identified within the proposed project’s APE.

Table 12-3: Cultural Resources within the Proposed Project APE

Name	Location	NRHP Status	WHR Status
Tesoro (formerly Shell) Refinery	Proposed project APE	Not eligible ^a	Not eligible
Tesoro Refinery Wharf	Proposed project APE	Not eligible ^a	Not eligible

Source: Montgomery 2016 (Appendix 12-A)

^a These resources have been recommended as not eligible for listing in the NRHP and the WHR as part of the proposed project review (Appendix 12-A).

12.3.2.3. *Traditional Cultural Properties and Cultural Landscapes*

Traditional Cultural Properties are properties that are eligible for inclusion in the NRHP based on their connections with cultural practices, traditions, beliefs, lifeways, arts, crafts, or social institutions of a living community. Cultural Landscapes illustrate how humans have used and adapted natural resources or traditional Native American cultural practices to daily life. No Traditional Cultural Properties or Cultural Landscapes have been identified within the study area to date. Background research indicates that the Swinomish Tribe and other tribes used the area, so it is possible that specific Traditional Cultural Properties and/or Cultural Landscapes not previously discovered could be identified during discussions or field visits with the tribes.

12.3.2.4. *Cemeteries and Burial Sites*

The county did not receive comments during the scoping process regarding the potential for the proposed project to impact cemeteries and burial sites. Additionally, the research and field investigation conducted by Tesoro did not result in the identification of cemeteries or burial sites within the APE.

12.4. POTENTIAL IMPACTS ON CULTURAL RESOURCES

This section evaluates the potential direct and indirect impacts on cultural resources as a result of construction and operation of the proposed project and the no action alternative.

12.4.1. Impacts on Cultural Resources from Construction and Operations

Potential direct impacts on archaeological resources within the new MVEC System and associated natural gas pipeline, NHT, Isom Unit, ARU, New Tanks Area, Gate 10 Access Refinement, and the potential laydown yard were considered. These areas are located within

previously developed portions of the Tesoro Anacortes Refinery or, in the case of the New Tanks Area, are located in places where field investigations did not identify the presence of any archaeological resources. Two architectural resources, the “Tesoro (Formerly Shell) Refinery” and the “Tesoro Refinery Wharf” were recorded within the APE; however, these architectural resources are recommended as not eligible for listing in the WHR or NRHP. The new natural gas pipeline that would be placed on the wharf as part of the MVEC System would be installed from the wharf, but may require placement of a spud barge in the water for a short period of time. The spud barge is not anticipated to impact submerged cultural resources.

Potential impacts on submerged and/or shoreline cultural resources along the marine vessel transportation route were considered. Within the marine vessel transportation route, impacts on submerged cultural resources are not anticipated from vessels traveling at the surface. The wakes of the five additional marine vessels per month, representing an increase of 2.2 percent or less, are not expected to create significant soil erosion or slope instability impacts where cultural resources may be located, particularly given the distance from the shoreline that the vessels are expected to travel.

Potential indirect visual impacts on cultural resources outside of the APE were considered. The majority of the proposed project would occur within the already-developed areas of the refinery. Existing industrial features are already visually dominant along the length of March Point, with the Tesoro Anacortes Refinery on the north half of the peninsula and the Shell Puget Sound Refinery on the south half of the peninsula. Construction activities associated with the proposed project would be temporary, and visual impacts would be minimized by implementing BMPs, such as locating laydown and fabrication areas within the footprint of the existing refinery and implementing slope stabilization for the secondary containment in the New Tanks Area. Changes in the visual character due to proposed project construction would consist of new components and activities that are similar to the existing environment; therefore, no visual impacts from proposed project construction or operational activities are anticipated (see Chapter 10, Land Use and Shoreline Use).

The research and field investigations conducted to date have not identified cultural resources within the APE. Therefore, the construction and operation of the proposed project are not anticipated to adversely impact cultural resources, including archaeological or architectural sites listed or eligible for listing in the NRHP or in the WHR, Traditional Cultural Properties, Cultural Landscapes, and cemeteries and burial sites. The impact on cultural resources from construction and operation of the proposed project would be *less than significant*.

If Traditional Cultural Properties or Cultural Landscapes were identified through coordination with the tribes, it would be possible to assess impacts. The identification of specific Traditional Cultural Properties and Cultural Landscapes important to the tribes requires the assistance and knowledge of those tribal governments and members. Receiving additional input from tribes would allow for the identification, proper treatment, and mitigation of impacts from the proposed project. Skagit County respects the rights of tribal sovereign nations to engage on their terms with local, state, and federal governments as appropriate.

Tesoro would develop and implement an Unanticipated Discovery Plan during construction. If cultural resources were encountered during construction, the provisions of the Unanticipated Discovery Plan would be followed. Provisions would include 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, Tesoro 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 (see Appendix 12-B, Unanticipated Discovery Plan for Cultural Resources).

12.4.2.Impacts on Cultural Resources from Marine Spills

This section addresses potential impacts on cultural resources from marine spills related to the proposed project. Potential impacts on historically used areas along the approaches of the marine vessel transportation route were considered. The proposed project would result in an additional five marine vessels traveling to and from the refinery wharf per month (60 vessels per year). This would include shipment of reformat to the refinery and mixed xylenes shipped from the refinery to global markets. Operation of the proposed project would result in an increase of marine vessel traffic along the marine vessel transportation route of 2.2 percent or less compared to current large marine vessel movements in the study area (see Chapter 13, Marine Transportation, Table 13-9).

In the event of a spill, the impact on cultural resources would be *less than significant* due to the physical characteristics of xylenes and reformat. These materials do not stain shorelines, and are not persistent in the environment. In a modeled worst-case spill scenario of an uncontrolled spill (i.e., no spill response) of mixed xylenes or reformat along the marine vessel transportation route, an area of up to 23.5 square miles of surface water and up to 11.5 miles of shoreline could be covered by spilled material. However, in the same computer model, 99.5 percent of spilled materials were estimated to have dissipated or evaporated within three days of the spill (see Chapter 13, Section 13.5, Marine Spills and Spill Response). Therefore, the impact on submerged marine or shoreline cultural resources in marine environments from xylenes and reformat spills would be *less than significant*.

Based on both the historical record and a spill risk analysis study by the Department of Ecology (Ecology), there is a negligible to low likelihood of a spill occurring, depending on the specific location in the study area (see Chapter 13, Section 13.5.6, Spill Likelihood). Safety measures are in place to prevent spills from marine vessels transiting the marine vessel transportation route and for loading/unloading petroleum products safely at the wharf (see Chapter 13, Section 13.4, Vessel Safety, and Appendix 2-A, Existing Programs and Operations). If an actual spill were to occur, response measures governed by regulatory agencies and provided by the refinery, local, and regional response organizations would be implemented to avoid or minimize the potential impacts from a spill. In addition, spill response resources (both equipment and personnel) are available to respond immediately in the event of a spill throughout the study area (see Chapter 13, Section 13.5. 7, Spill Response).

12.4.3. Summary of Impacts on Cultural Resources

The potential impacts of the proposed project discussed in this section are summarized in Table 12-4.

Table 12-4: Summary of Potential Impacts on Cultural Resources

Impact Topic	Impact Summary	Potential Impact Significance	
		<i>Less than Significant</i>	<i>Potentially Significant</i>
<i>Construction and Operations</i>			
Direct or indirect disturbance of cultural resources	No cultural resources were identified within the APE. In the event that previously unreported cultural resources are encountered during construction, Tesoro would implement the procedures described in the project-specific Unanticipated Discovery Plan.	√	
Direct or indirect disturbance of cemeteries and burial sites.	No cemeteries or burial sites were identified within the APE. In the event that previously unreported human remains are encountered during construction, Tesoro would implement the procedures described in the project-specific Unanticipated Discovery Plan.	√	
Direct or indirect disturbance of Traditional Cultural Properties and Cultural Landscapes	Traditional Cultural Properties or Cultural Landscapes have not been identified in the APE to date. If Traditional Cultural Properties or Cultural Landscapes were identified through coordination with the tribes, it would be possible to assess impacts and would allow for the identification, proper treatment, and mitigation of impacts from the proposed project.	√	
<i>Unplanned Events</i>			
Marine Spills	In the event of a marine spill, xylene and reformat would evaporate quickly and would not stain shorelines. A marine spill has a negligible to low likelihood of occurring within the study area. Spill prevention and response measures are in place that would prevent or minimize exposure of cultural resources to a spill.	√	

12.5. POTENTIAL IMPACTS OF THE NO ACTION ALTERNATIVE

Under the no action alternative, Tesoro would not proceed with the proposed project. Because no construction or operations would take place under the no action alternative, there would be no new impacts on cultural resources.

12.6. ADDITIONAL MITIGATION MEASURES

No additional mitigation measures are recommended beyond the embedded controls that are already incorporated into the proposed project design. Should any additional tribal resources be made known, Skagit County may reassess potential impacts and mitigation.

12.7. CUMULATIVE IMPACTS

As described above, no cultural resources were identified that are listed in, or eligible for listing, in the NRHP or the WHR within the APE. The proposed project would not impact identified

cultural resources listed in the NRHP or the WHR, and therefore would not contribute to cumulative impacts on these resources.

There is, however, potential for cultural resources to be present within shorelines of the marine vessel transportation route that were not identified through field-based or desktop review. As described above, operation of the proposed project could result in less than significant impacts on these cultural resource sites if previously unidentified cultural resources are located in close proximity to the navigation channel and in areas that are susceptible to erosion. These resources could be impacted by vessel wakes generated by marine vessels associated with the proposed project. Within the study area, there has been significant past marine vessel activity, and future marine vessel traffic in the Salish Sea is expected to increase (see discussion in 13.6, Cumulative Impacts on and from Marine Transportation). The wake of vessel traffic associated with past marine vessel traffic, the proposed project, and other reasonably foreseeable development projects would occur within an established navigation channel and at a distance from land (about 0.25 mile or more). Marine vessels transiting the study area are typically operated at low speeds for safety reasons, particularly in sheltered areas. The relative contribution of vessel transportation wave effects is anticipated to be a small component of the existing wave climate. Therefore, cumulative impacts as a result of the proposed project in addition to the past impacts on cultural resources as a result of wakes are considered to be negligible.

12.8. REFERENCES

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