

Tesoro Clean Products Upgrade Project Cultural Resources Technical Memorandum

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Introduction

This technical memorandum presents the results of CH2M HILL's background archaeological investigation for the proposed Tesoro Refining & Marketing Company LLC (Tesoro) Anacortes Refinery's Clean Products Upgrade (CPU) Project in unincorporated Skagit County, Washington. The purpose of the background investigation was to determine the presence or absence of any archaeological resources in the Project footprint. The background investigation included background research consisting of a literature and site record review, and cartographic research.

Proposed Project

Tesoro is proposing the CPU Project to improve the company's capability to deliver cleaner local transportation fuels and global feedstock primarily for polyester, making the Anacortes refinery a stronger, more economically viable member of the communities it serves.

Included in the proposed CPU Project are plans to:

- Build an Aromatics Recovery Unit (ARU) capable of producing 15,000 barrels per day of mixed xylenes, a feedstock used to make clothing, film for medical x-rays, plastics, cleaners and many other products we use every day.
- Install a new Marine Vapor Emission Control (MVEC) System that will reduce emissions of volatile organic compounds (VOCs). The MVEC System will control hydrocarbon emissions from marine vessels during loading operations.
- Expand the Naphtha Hydrotreater (NHT) to process 46,000 barrels of naphtha per day. This will allow Tesoro to further reduce the sulfur content in gasoline as required by the new federal Tier 3 regulations.
- Install a new Isomerization (Isom) Unit to increase the amount of octane available to the refinery. Coupled with the NHT expansion project, this provides more flexibility for production of gasoline.

Figure 1 - Vicinity Map shows an overview of the Tesoro Anacortes Refinery and vicinity.

Project Setting

The proposed CPU Project is located on March Point, part of Fidalgo Island, in unincorporated Skagit County, Washington. It is in Sections 21, 28 and 33, Township (T) 35 North (N), Range (R) 2 East (E) (Figure 1). Elevation ranges between 20 and 60 feet above sea level at the two parcels. The City of Anacortes, also part of Fidalgo Island, is about 2.8 miles northwest of the CPU Project.

Fidalgo Bay separates March Point from Anacortes on the west, while Padilla Bay separates March Point from the mainland on the east.

The project area that is the subject of this updated file and background search is located in the central portion of the Tesoro project and located on the west side of existing storage tanks noted as the New Tanks Area (Figure 1). Other project areas including the ARU, Isom Unit, NHT Expansion, and the MVEC System are located within previously developed areas of the Refinery.

Environmental Overview

The CPU Project area is situated in the northern section of the Puget Lowland, an elongated basin trending north to south from the Fraser River in Canada to near Centralia, Washington. It extends from the crest of the Cascade Range on the east to the Olympic Mountains and the Strait of Juan de Fuca on the west. The current topography and geomorphology of the Puget Lowland were formed primarily by Pleistocene glaciation. Between about 15,000 and 13,500 years ago, a lobe of the Cordilleran Ice Sheet covered the region from Canada to near present-day Olympia, Washington (Easterbrook and Rahm, 1970:55). Topography and associated sediments made up of glacial till, sand, and gravel in the Project area consist largely of material deposited by the Vashon Stade, the last major episode of continental glaciation in the region. During the warmer and drier conditions of the Late Pleistocene, meltwater from this glacier produced outwash in the form of sands and gravels as far south as Centralia, Washington. As the glacier retreated, the Pacific Ocean advanced into and partially submerged what is now Puget Sound and the Straits of Georgia, an area that had not previously contained marine embayments. Today the Puget Lowland consists primarily of flat glacial drift plains between 200 and 600 feet above sea level (Morgan and Jones, 1995). The lower elevations of Fidalgo Island are mantled with deposits of Everson Interstade glaciomarine outwash, drift, and till, with the underlying Vashon till occasionally exposed in marine bluffs (Dragovich et al., 2000).

The Puget Lowland is within the western hemlock vegetation zone as defined by Franklin and Dyrness (1973). While western hemlock may be the dominant species in most areas, Douglas-fir, western red cedar, and grand fir are almost as common. Smaller numbers of red alder, bigleaf maple, madrone, and chinkapin are found throughout. Understory vegetation in wetter areas includes swordfern, oxalis, and skunk cabbage, while dryer areas contain oceanspray and salal. Oregon grape, huckleberry, Oregon oak, and non-native Scot's broom also occur in the Puget Lowland. Logging in the early 1900s and subsequent agricultural and industrial development have since cleared most of this region of its native vegetation.

Prairies are included in the Puget Lowland vegetational mosaic. Prior to Euro-American settlement, these prairies included wetlands, grasslands, and Oregon oak and conifer stands (Chappell et al., 2001). The origin and perpetuation of prairies is thought to be the result of the presence of droughty soils that formed in glacial outwash along with lower summer precipitation, and management by prehistoric Native Americans using fire. Naturally occurring fires also affected the prairies (Franklin and Dyrness, 1973:89; Leopold and Boyd, 1999; Norton, 1979).

Soils mapped in the Project include Bow gravelly loam, low precipitation, 0 to 3 percent slopes; and Coveland gravelly loam, 0 to 3 percent slopes. Both of these soils are found in the proposed parking lot expansion area, while Bow gravelly loam, low precipitation, 0 to 3 percent slopes is found in the wetland mitigation area.

Bow gravelly loam, low precipitation, 0 to 3 percent slopes is found on glacially modified remnant terraces and hills. This very deep soil formed in gravelly glacial drift over glaciolacustrine material mantled with volcanic ash (Klungland and McArthur, 1989). It has a perched water table.

In general, the uppermost 5 inches are dark-brown gravelly loam that overlies brown gravelly loam to about 8 inches below the surface. Between about 8 and 22 inches is dark grayish-brown clay loam, with gray silty clay to a depth of 60 inches or more (Klungland and McArthur, 1989).

Coveland gravelly loam, 0 to 3 percent slopes, is a very deep, somewhat poorly drained soil found in swales on hills. It formed in glaciolacustrine material. The surface layer is black and dark-brown gravelly loam 9 inches thick. The subsurface layer is dark grayish-brown very gravelly sandy loam 5 inches thick. The subsoil is olive-gray, gray, and dark-gray silty clay 38 inches thick. The substratum to a depth of 60 inches or more is olive-gray silty clay. In some areas the surface layer is gravelly silt loam or is thin gravelly loam and has properties associated with weathered volcanic ash, and in some areas the subsoil is loamy.

Ethnographic Overview

Project lands are within the ethnographic territory of the Coast Salish peoples, who spoke various dialects of the Salishan language family. Suttles and Lane (1990:453-454) place the March Point area within the traditional lands of the of the Central Coast Salish, specifically that of the Northern Straits speakers, who occupied lands from Vancouver Island on the north to Deception Pass on the south.

While significant local cultural variation existed between Coast Salish groups, all shared certain broad characteristics. Perhaps the most significant and well documented was a reliance on anadromous fish as a dietary staple, procuring various species of salmon as well as steelhead. Other important economic resources were land mammals, shellfish, and vegetal resources, all of which were acquired on a seasonal basis (Suttles and Lane, 1990:488-489).

The Coast Salish lived in permanent winter villages generally located at the mouth of streams or in river valleys. Villages were composed of plank houses, specifically shed-roof houses, although gambrel and gable roofed houses were sometimes used. Plank houses were shared by families that each occupied one part of the house (Suttles and Lane, 1990:493). The wealthiest head of a household functioned as a leader of the village, although there was no formal "chief." Other shared cultural characteristics include an emphasis on personal wealth and status, multifamily households, and complex exchange systems (Matson and Coupland, 1995:36).

Resource properties could be held by extended families who passed the use of these lands through their descendants. Such properties consisted of productive root beds, fishing and hunting ranges, and shorelines where clams, seals, or other resources were abundant. Non-family individuals could be, and often were, granted permission to access and use these areas. Family members needed no permission, and part of their seasonal round included visiting related extended families who also used these locations (Thom, 2000). Other resource territories were held in common by the community and were available to each member of a village, regardless of family. However, individuals with ritual and technical knowledge of resources usually had some level of control or administration of these communal properties (Thom, 2000).

The earliest Euro-American settlers in the vicinity of what is today the Project study area arrived in the 1850s, drawn by the agricultural potential, timber resources, and abundant salmon of the region (Kirk and Alexander, 1995:273; Ficken, 2000). In response to the influx of settlers, Isaac

Stevens, the first governor of Washington Territory, negotiated treaties with most of the native inhabitants of Puget Sound in 1854 and 1855, including those in the vicinity of the Project. The treaties stipulated that these peoples would cede their traditional territories and agree to be relocated (Ruby and Brown, 2010:198).

The ensuing loss of traditional lands and removal to reservations, as well as Euro-American possession of the tribes' native lands and the delay in ratifying treaties, led to what is known today as the Puget Sound War of 1855–1856. The duration of the war was brief, and by the spring of 1856 the conflict had subsided and Governor Stevens had established new reservations throughout western Washington. While many Coast Salish peoples were removed to these reservations, a few refused to leave their native lands. Eventually these people either relocated to reservations or were at least partly assimilated into Euro-American culture.

Archaeological Overview

Cultural Chronology

The CPU Project is located in the Northwest Coast culture area of North America. The Northwest Coast culture area extends from Alaska's Copper River delta on the Gulf of Alaska to just north of the California–Oregon state line. Inland, the Northwest Coast culture area ranges from the Chugach and Saint Elias mountain ranges of Alaska through the Coast Range of British Columbia, and includes the area between the coast and the Cascade Range in Washington and Oregon (Suttles, 1990:1).

The prehistoric peoples of this region shared a broad array of cultural characteristics. Perhaps the dominant trait was an emphasis on personal wealth and status, as well as an economy based on intensive harvesting and preserving of natural resources (particularly of salmon), multifamily households, and complex exchange systems (Matson and Coupland, 1995:36). Northwest Coast peoples also developed a distinctive woodworking technology that produced plank houses, canoes, and numerous items of everyday domestic use as well as items of spiritual and ceremonial use. Artwork associated with this culture area is quite distinctive and includes carvings and textiles in wood, fiber, horn, shell, and antler, among other media.

The cultural sequences proposed by Ames and Maschner (1999) and Morgan (1998) are used here to provide a general overview of the Northwest Coast region, which includes Project lands. Five broad chronological periods are used in this report to define cultural change over time. These are the Paleo Indian, prior to about 12,500 years before the present (B.P.); the Archaic Period, from about 12,500 to 6,400 years B.P.; the Early Pacific Period, around 6,400 to 3,800 years B.P.; the Middle Pacific Period, about 3,800 to 1,800-1,500 years B.P.; and the Late Pacific Period, about 1,800-1,500 years B.P. to 225 years B.P.

Paleo Indian Period, prior to about 12,500 Years B.P.

The earliest migrations of people to North America across the Bering land bridge and the Pacific Northwest coast represent the Paleo Indian period. The first such migration may have occurred around 15,000 to 16,000 years ago, or earlier, as glacial retreat along the coastline of western North America exposed the shoreline. Pollen analyses and other investigations suggest that food resources and firewood were present along the coast and would have been available for use by the early coastal explorers (Ames and Maschner, 1999:63).

Archaeological evidence documenting these migrations is relatively scarce, the result of rising sea levels following deglaciation at the end of the Pleistocene. As sea levels rose, the shoreline that had

been exposed during early episodes of migration became inundated, and thus precluded the discovery of archaeological sites dating to this period. A second migration is thought to have occurred about 13,000 and 12,000 B.P. Within the Northwest Coast cultural region, sites dating to this period have been found in Alaska, although the best known and most completely studied sites are associated with the Clovis culture, which occurs throughout North America. Clovis sites date to approximately 12,500 B.P. and are characterized by the eponymous projectile point, which is large, fluted, and unique to the period. While isolated finds of surficial Clovis points are recorded across the Pacific Northwest, sites containing other Clovis materials are quite rare.

Paleo Indian sites are rare, and those that have been recorded and studied tend to occur along the coastline and in river valleys, often on higher terraces. Artifact assemblages in such sites usually contain a variety of stone tools as well as tools made of bone, antler, and other materials where alkaline soil conditions preserve such materials. The similarity of these Paleo Indian tool kits and the wide distribution of sites across the region suggest a lifeway of generalized hunting, fishing, and gathering.

Archaic Period, about 12,500 to 6,400 Years B.P.

Few sites correlating with the Archaic Period have been excavated in the Northwest Coast culture area, and consequently this period is not well known. The paucity of Archaic Period sites, especially on the coast, can be at least partly attributed to rising sea levels following the end of the Pleistocene. Coastal sites dating to this period were situated on now-submerged shorelines following the addition of glacial meltwater to the world's oceans and the subsequent rise of sea levels. Inland sites are thought likely to exist but few have been found. This period is characterized by extensive environmental changes and the development of early subsistence economies that preceded the rise of permanent settlements, resource intensification, and complex social organizations.

Perhaps the archetypal site of the Archaic Period is the Glenrose Cannery site on the Fraser River in British Columbia, just south of Vancouver. R.G. Matson excavated the site and classified its components, dating to circa (ca.) 9,000-6,300 B.P., as "Old Cordilleran." Artifacts associated with the Old Cordilleran include leaf-shaped lanceolate bifaces, cobble and cobble-flake tools, and antler wedges (Ames and Maschner, 1999:72) Two sites (45WH83 and 25WH84) recorded near Cherry Point on the coast northwest of Bellingham, Washington, (Morgan, 1998) date to the Archaic Period and may be associated with the Olcott phase, a variation of the Old Cordilleran.

The Olcott phase is similar to the Cascade phase of the interior Pacific Northwest. Representative Olcott tools and artifacts include "pebble" (cobble) tools and folate (Cascade-style) points. A microblade tradition and the use of contracting stemmed points is shown at the end of the phase (Carlson, 1990b:66-67) Attributes of the Olcott phase include sites located on upland, non-marine terraces, and few organic materials such as bone or shell, groundstone tools, and domestic features such as hearths. Instead, there is a focus on the use of scrapers and choppers, Cascade-style points, and use of coarse-grained lithic toolstone such as basalt and argillite (Morgan et al., 1998:34). Olcott peoples were likely ancestral to the ethnographic Coast Salish.

Early Pacific Period, about 6,400 to 3,800 Years B.P.

By 6,400 B.P., sea levels were within 6 to 10 feet of their present levels (Ames and Maschner, 1999:88). Prehistoric peoples at this time began to intensively exploit littoral environments and coastal habitats. Concurrently, these peoples became more sedentary. Their resource base was

focused on the shallow coastal waters and beaches, “although terrestrial and riverine habitats were also important” (Ames and Maschner, 1999:91).

Bone tools began to dominate artifact assemblages of Early Pacific coastal sites, most commonly in the form of unilaterally and bilaterally barbed harpoon heads. Groundstone slate was used for lance points and incised and decorated ground-slate objects. Adze blades, made of slate and marine shell, suggest a new focus on woodworking and processing of woodstuffs. Labrets, flaked stone drills, pendants, and abraders also appeared during this period (Ames and Maschner, 1999:103). Bone, antler, and groundstone tools appeared at this time and their technological variability may represent the beginnings of distinct ethnic patterns that continued to the ethnographic period (Matson and Coupland, 1995; Morgan et al., 1998:3.7).

Middle Pacific Period, about 3,800 Years B.P. to 1,800-1,500 Years B.P.

Sea levels were stable at modern levels during this period. Archaeological evidence for the use of plank houses and villages and social stratification based on wealth or prestige appeared at this time. Storage methods designed to preserve foodstuffs over the winter were developed, and resource use began to focus on salmon. The use of food storage techniques, as well as increases in technological efficiency, may have resulted in increased population growth (Morgan et al., 1998:3-10).

As tools and other technologies of this period became more sophisticated, focus on seasonal resources increased. Numerous and varied bone tools such as toggle harpoons were perfected, indicating an increasing use of shallow coastal waters and beaches. Canoes, groundstone net sinkers, and wooden fish weirs became common.

Middle Pacific Period sites have been temporally and technologically divided by archaeologists into the Locarno Beach phase (ca. 3,500-2,600 years B.P.) and the Marpole phase (ca. 2,600-1,500 years B.P.). During the Locarno Beach phase, people used stemmed points and pebble and cobble tools, as well as microblade cores and blades (Ames and Maschner, 1999:103). Groundstone tools include ground slate points and blades, adzes, labrets, net sinkers, manos, and abraders. Bone and antler were used to make unilaterally and bilaterally barbed harpoon points, harpoon heads, and wedges, often decorated with incised zoomorphic and geometric designs (Ames and Maschner, 1999:104). Other artifacts that appear at this time include cordage, basketry, and hats.

Many items of personal adornment such as stone and shell beads and items made of native copper are associated with this period and indicate increased differentiation in social status. In the Gulf of Georgia/Puget Sound region, this phase is characterized by winter villages made of large plank houses, extensive use of storage, seasonal use of specialized resource locations, and sophisticated art (Morgan et al., 1998:3-10). Unique stone and antler sculpture also occur in the Marpole phase (Ames and Maschner, 1999:105).

Late Pacific Period, about 1,800-1,500 Years B.P. to 250 Years B.P.

The Late Pacific Period represents the ethnographic culture type and shows evidence of cultural continuity. Permanent plank houses and associated fortifications such as ditches and embankments, located in winter villages, are used. A salmon-based economy, extensive use of storage techniques, and ascribed social status are now common (Morgan et al., 1998:3-11). Regional differences appear in artifact types and art, which may relate to functional needs as well as to cultural/ethnic differences among the groups of the Northwest Coast area. Coastal populations at this time may have peaked by about 1,000 years B.P. before diminishing as a result of introduced diseases and other factors.

Historical Overview

The earliest Euro-American ventures into the March Point region were carried out by Captain George Vancouver of the British Navy. He and his crew mapped the lands around the Strait of Georgia and northern Puget Sound during his expedition of 1792. By 1848 the Hudson's Bay Company had become established in the region with Fort Langley on the Fraser River and Fort Victoria on Vancouver Island.

The earliest Euro-Americans to permanently settle on Fidalgo Island staked claims on March Point between 1850 and 1870. Fidalgo Island was given its name by the Spaniard Francisco Eliza, in 1791, during a mapping expedition. In 1841 Charles Wilkes was the first to recognize that this landform was an island, and although he named it Perry's Island, the name was later changed back to Fidalgo Island in 1847 by British surveyor Henry Kellett (Brokenshire, 1993: 77-78).

The first settlers on March Point included Enoch Compton, Jack Carr, William Munks, William Bonner, Charles and Robert Beale, James Kavanaugh, Henry Barkhousen, John and Almira Griffin and Hiram March, for whom the point was named (Anacortes Chamber of Commerce, 2010).

In 1860 William Munks, who came from Ohio, established Munks Landing on the west side of March Point where he built a wharf and a store. Hiram March established a farm on the tip of the peninsula in 1865 and additional permanent Euro-American settlement soon followed. The backgrounds of these early settlers ranged from hunting and trapping to surveying and prospecting. Many of them became farmers on Fidalgo Island harvesting fruit, cabbage, and hops, as well as raising livestock.

The expansive prairies at the head of Fidalgo Island that attracted the Euro-Americans were a favorite location for Native American tribes as well (Anacortes Chamber of Commerce, 2010). Many Euro-American men married Native women. One of these was Caroline Kavanaugh, born Tol Stola, the daughter of a Swinomish headman, who married James Kavanaugh, a former sheriff of Whatcom County.

James Kavanaugh was an Irishman who came to America during the potato famine. He arrived at the port of New Orleans circa 1849. At least one brother and a sister with her husband and family are thought to have come over with him. James left New Orleans for California to try his luck in the gold fields of California. Not having a great deal of success in this venture, he and Hiram March relocated to Washington, and in about 1865 Kavanaugh moved to March Point, next to Hiram March's homestead. Kavanaugh and March planted orchards on their property, including apples (Jeffcott, 1949). James and Tol Stola had four children, Samuel, Sarsfield, Francis, and Laughlin, who died as an infant (Van Voorst, 2010). James and Tol Stola lived on March Point the remainder of their lives. James died in 1885 and Tol Stola in 1906 (Jeffcott, 1949, and Van Voorst, 2010).

According to the Friends of Skagit Beaches (2013–2014), "In 1928, inspired by Charles Lindbergh's historic 1927 transatlantic flight, the Kiwanis Club leased land on March Point for a 2,000-foot airstrip, making Anacortes among the first cities to embrace air travel. In 1947, the first direct airmail service took off from March Point on a DC-3 Scenic Liner." Lunsford (2009:74) also mentions the March Point airfield, which he notes was inaugurated in 1928. The former airfield was located at the northern tip of March Point where the Kiwanis Club had leased the land from Fred March, son of early pioneer Hiram March (Anacortes Museum, 2014).

Shell Oil began development of its large-scale refinery on March Point in 1953, and the refinery was operational in 1955. This facility is now owned by Tesoro. A Texaco refinery was built to the south

in 1958 that is now owned by Shell. These refineries are “just a few miles from the site where Shell built a terminal in 1911, marking its first entry into the US oil and gas industry” (Shell.com, n.d.). The location of the terminal that was built in 1911 could not be determined.

File Search and Cartographic Research

A file search was conducted on April 23, 2015, for an area within one mile of the proposed CPU Project. The search was carried out using the Washington Department of Archaeology and Historic Preservation’s (DAHP’s) online Washington Information System for Architectural and Archaeological Records Data (WISAARD) database. The file search was used to determine if previously recorded precontact and historic era sites are within or near the study area and to determine whether any part of the study area had been surveyed previously for cultural resources. A total of seven archaeological surveys or investigations have taken place within 1 mile of the study area. Table 1 lists the previous investigations and their results. Figure 2 shows the locations of previous investigations and sites.

Table 1

Results of Previous Archeological Investigations

Report	Location	Description	Results	Reference
An Intensive Archaeological Reconnaissance in the Northern Puget Sound Region	March Point and elsewhere	Pedestrian survey	Recorded sites 45SK44 and 45SK45, both shell middens	Bryan, 1955
Archaeological Investigation Report: West March Point Beach Nourishment Project, Skagit County, Washington	About 1 mile west of the Project's proposed Gate 20 Parking Lot Expansion Area	Pedestrian survey and shovel testing	Rerecorded site 45SK45, a prehistoric and historic shell midden	Smart and Rollins, 2010b
Cultural Resources Inventory Report – Shell Puget Sound Refinery Crude by Rail East Gate Project, Anacortes, Skagit County, Washington	About 0.45 mile south of the Project's proposed East March Point Wetland Mitigation Site	Pedestrian survey and shovel testing	No archaeological sites or isolates recorded	Stegner et al., 2013
Proposed Tesoro Crude Railcar Unloading Facility, Cultural Resources Report	About 0.54 mile southwest of the Project's proposed Gate 20 Parking Lot Expansion Area	Pedestrian survey and shovel testing	Recorded historic debris sites 45SK478 and 45SK479, and historic debris isolates 45SK480 and 45SK481	Sharpe and McClintock, 2001
Archaeological Monitoring for the Tesoro Crude Railcar Unloading Facility, Anacortes, Washington	About 0.54 mile southwest of the Project's proposed Gate 20 Parking Lot Expansion Area	Archaeological monitoring during construction	Recorded historic debris that was deemed to be associated with the former Munk family homestead, but no Smithsonian number was assigned	Baldwin, 2012

Report	Location	Description	Results	Reference
Archaeological Investigation of the Tesoro Anacortes Refinery's Proposed Gate 20 Parking Expansion and Wetland Mitigation Project, Skagit County, Washington	About 0.5 mile east of the project are on the east side of March Point	Pedestrian survey and shovel testing	Recorded two historic era archaeological sites 45SK525 and 45SK526	Wilt, 2014
Archaeological Survey and Assessment of the Proposed March Point Beach Nourishment Project, Anacortes, Washington	About 0.75 mile north of project on shoreline of March Point	Pedestrian survey and shovel testing	No sites or isolates recorded	Camille A. Mather and Ed P. Arthur. 2014

Conclusions

No previously recorded archaeological sites are known to exist in the project area. It is very unlikely that intact cultural deposits are extant within the existing Tesoro facility: MVEC components, NHT Expansion Area, ARU Area, and Isom Unit Area. These areas are located within previously developed portion of the Tesoro Refinery.

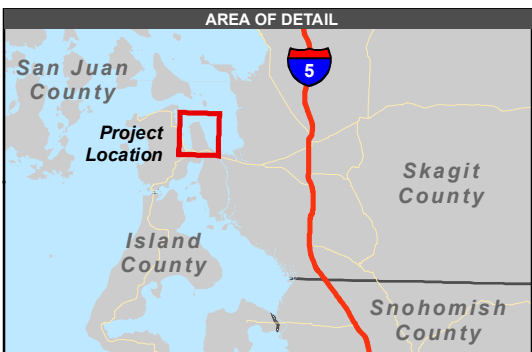
Previous surface survey on the perimeter of the New Tank Area did not identify any cultural resources (Sharpe and McClintock 2011). Construction of the original tanks resulted in grading of the surfaces which likely heavily impacted the New Tanks Area. The New Tanks Area includes areas that have been disturbed by construction of the existing tanks, and previously conducted surveys nearby did not identify intact archaeological resources. It is unlikely that the New Tanks Area will contain intact archaeological resources and no further work is recommended.

References

- Baldwin, Garth L. 2011. *Archaeological Monitoring for the Tesoro Crude Railcar Unloading Facility, Anacortes, Washington*. Drayton Archaeological Research, Bellingham, Washington.
- Bryan, Alan L. 1955. *An Intensive Archaeological Reconnaissance in the Northern Puget Sound Region*. Unpublished M.A. Thesis in Anthropology, University of Washington, Seattle.
- Camille A. Mather and Ed P. Arthur. 2014. *Archaeological Survey and Assessment of the Proposed March Point Beach Nourishment Project, Anacortes, Washington*
- Sharpe, James J., and Robin McClintock. 2011. *Proposed Tesoro Crude Railcar Unloading Facility, Cultural Resources Report*. CH2M HILL, Portland, Oregon.
- Smart, Tamela S., and Alyson M. Rollins. 2010. *Archaeological Investigation Report: West March Point Beach Nourishment Project, Skagit County, Washington*. Equinox Research and Consulting International Inc., Concrete, Washington.

Stegner, Michelle, Genavie Thomas, and Anisa Becker. 2013. *Cultural Resources Inventory Report – Shell Puget Sound Refinery Crude by Rail East Gate Project, Anacortes, Skagit County, Washington*. URS, Portland, Oregon.

Wilt, Julie. 2014. *Archaeological Investigation of the Tesoro Anacortes Refinery’s Proposed Gate 20 Parking Expansion and Wetland Mitigation Project, Skagit County, Washington*. CH2M HILL, Portland, Or.



- - - New 3" Natural Gas Line
- Project Areas
- East March Point Wetland Mitigation Site

Source: NAIP Imagery (10/2013)

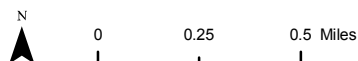
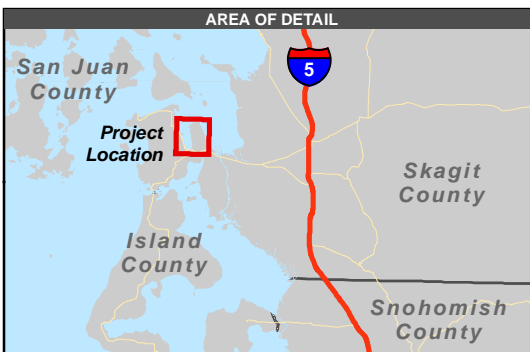
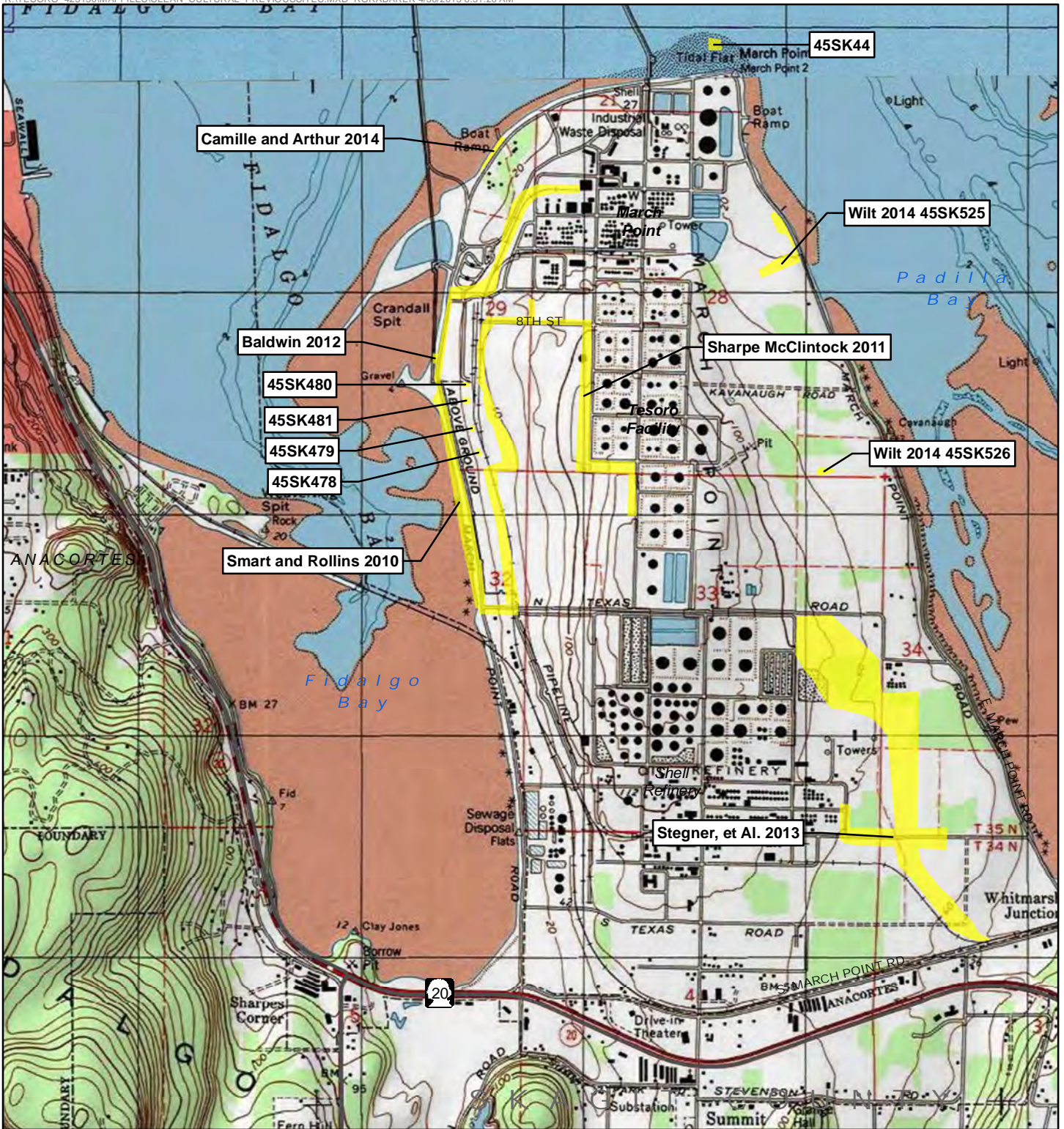


Figure 1
Vicinity Map
Clean Products Upgrade Project



Legend

Previous Investigation or Archaeological Site



0 0.25 0.5 Miles

Figure 2
Archaeological Investigations
 USGS Anacortes South, 1980
 T35N ,R2E, Sec. 28

