3.4 Cultural Resources

This section evaluates the potential impacts of the Project related to encountering or damaging cultural resources during construction and operation of the Project. The section is based on the Archeological and Historical Resource Investigation Report and Addendum prepared by Roscoe and Associates (2020, 2021).

3.4.1 Study Area

The Study Area is termed the Area of Potential Effect (APE) in the cultural resources report and addendum prepared for the Project. The APE included the entire Terrestrial Development Project Site and the Humboldt Bay Intakes component area. See Figure 2-2 for the APE. The APE is located in Wiyot ancestral lands surrounding Humboldt Bay. As stated in the Project Description, the APE is previously disturbed, and the Terrestrial Development Site has not been in operation for many years.

3.4.2 Setting

The following sections describe the environmental setting for cultural resources within the Study Area. Potential impacts to cultural resources would be confined to the actual Project Site, but the setting of both the Project Site and immediate vicinity are described to account for uncertainties about potential locations of buried cultural and paleontological resources.

Cultural Chronology

Initial Northwest California archaeological research was focused on identifying Native American assemblages and delineating a pre-contact chronology. Recent studies address such issues as paleo-environmental reconstruction, technology and adaptive responses to environment, trade, and the shifting focus from terrestrial to marine resources during early costal occupations of California.

Early research in Northwest California includes excavations at Late or Emergent Period sites near Humboldt Bay (CA-HUM-67); Patrick's Point (CA-HUM-118), Trinidad Bay (CA-HUM- 169); and on Stone Lagoon (CA-HUM-129). The seminal work defining early period assemblages in the North Coast Ranges of California however is the Pilot Ridge-South Fork Mountain (PR-SFM) project sponsored by Six Rivers National Forest for logging and road building undertakings. These studies have provided insight into some of the major environmental and archaeological trends within the region over the past 8000 years. This pre-contact cultural sequence for the region is summarized below.

Paleo-Indian Period (Prior to 8,500 B.P.)

No known sites dating from this period occur along Humboldt County's coast or interior. Characteristic artifacts of this period include large, lanceolate, concave-base, fluted projectile points, and chipped stone crescents. No evidence exists for the presence of a developed plant food milling technology. Subsistence adaptation was highly mobile hunting and plant gathering. Exchange between groups presumably took place on an individual, one-to-one basis, with social groups not being heavily dependent upon exchange.

Lower Archaic (8,500 to 5,000 B.P.)

The Borax Lake Pattern, characterized as generalized hunting and gathering by small, highly mobile family groups, defines the Lower Archaic period in the Northwest coast. Provisional dates of 3000 to 6000 years B.P. were assigned to the Borax Lake Pattern sites at PR-SFM based on obsidian hydration data, although radiocarbon dates were not obtained at that time. Subsequent data based on corrected dates documented by Fitzgerald and Hildebrandt (2001) from carbon found in a soil sample at site CA-HUM-573 on Pilot Ridge, date the pattern to 7120 +/- 50 radiocarbon years. This is one of the earliest archaeological deposits to be dated in Northwest California.

The pattern includes relatively large wide-stemmed projectile points (typically made of locally available chert), handstones, milling slabs, and ovoid- and dome- scrapers. Borax Lake Pattern sites typically contain a similar array of

artifact types, implying each served as a base camp where similar activities took place, with a lack of specialization. Obsidian is poorly represented in the pattern; suggesting exchange networks with obsidian rich areas (southern North Coast Ranges, Northeast California) were not established.

This adaptive pattern corresponded to a significant exothermic warming trend that followed the Ice Age, when higher elevations could have been occupied for a longer portion of the year. Palynological studies demonstrated that the upland environments within the PR-SFM survey area had been affected by mid-Holocene warm periods (between 7500 and 6300 cal BP and between 5900 cal BP and 3800 cal BP) with the result of an upward migration of the oak woodland environment. Borax Lake Pattern Sites have been identified in upland areas on Pilot Ridge, Dow's Prairie near McKinleyville, along the Trinity River near Big Bar, and on the Smith River near Hiouchi Flat.

Middle Archaic Period (5,000 to 2,500 B.P.)

The Middle Archaic Period within Northwestern California is represented by smaller projectile point forms as proposed by Hildebrandt and Hayes. This adaptive pattern was oriented towards use of low elevation villages located along salmon bearing streams near acorn crops which were occupied by relatively large concentrations of people during the winter months. Compared to the earlier Borax Lake Pattern, this technological change is hypothetically linked to the advent of storage facilities, particularly for fish and acorns to feed growing populations. It represents an adaptive shift where resources were collected and returned to a permanent settlement area, resulting in a variety of functionally different site types that reflect more specialized activities. This shift coincided with a significant cooling trend, the Neo-glacial, approximately 3300 years ago, which particularly affected the resource base of interior Northwest California. The variety and productivity of upland resources declined; whereas annual salmon runs were more productive and reliable in local rivers.

Archaeologically, Mendocino Pattern sites are marked by a greater variety of generally smaller projectile point forms (Willits Series, Trinity Series, and Oregon Series), distinct unifacial flake tools (McKee Uniface), and greater reliance on mortars and pestles (associated with acorn processing) over milling slabs and handstones. Middle Period components excavated on the high elevation PR-SFM implied specialized activities, including the establishment of native burning practices to maintain open prairies as implied by Palynological dates. Hildebrandt and Hayes noted that Mendocino Pattern components at lower elevations in interior northwest California contained a diversity of artifacts including bowl mortars, pestles, non-utilitarian items, and well-developed middens. Initial use of coastal resources is evident by Mendocino Pattern components investigated at sites located at the mouth of the Mattole River and the mouth of Randall Creek. Mendocino Pattern time markers and obsidian hydration data support the finding of a Middle Archaic Period component on the northern margin of Humboldt Bay at the Arcata Sports Complex Site (CA-HUM-351/H).

Upper Archaic Period (2,500 to 1,100 B.P.)

The artifacts and assemblages of this period generally represent a continuation of the patterns developed in the Middle Archaic Period. Sites are found throughout the central North Coast Ranges in moderate density. Large side- and corner-notched projectile points continue to occur. Medium-to-large, shouldered, lanceolate points appear. Leaf shaped points also are present. Bowl mortars and pestles, indicating initial development and elaboration of the "acorn complex"; replace mano-metate grinding technology. Bone tools such as fishing equipment are present. In general, artifact numbers become greater, artifact categories become broader, and tool kit variability higher. Obsidian becomes the preferred tool stone in many parts of the central North Ranges, often manifested by an elaborate obsidian biface reworking industry. This is reflective of greater complexity in exchange systems, characterized by occurrence of regular, sustained exchange between social groups.

The Upper Archaic Period is marked by the development of non-utilitarian features and artifacts (e.g., beads, pendants, and rock art) that begin to be manufactured in substantial numbers. In particular, shell beads become an important grave good artifact, and may be indicators of sustained exchange and social status differentiation. During this period, the growth of sociopolitical complexity is demonstrated by the apparent development of status distinctions based upon wealth, and emergence of group-oriented religions.

Late or Emergent Period (1,100 to 150 B.P.)

The Late Period in Northwestern California exemplifies some of the most socially complex hunter-gather populations who relied on marine and/or riverine resources in California. The Tuluwat Pattern (formerly the Gunther Pattern) characterizes the Late Period adaptation in north-coastal California. The Tuluwat Pattern dates from ca. 1100 years B.P. to historic contact around 150 years B.P., and characterizes the material culture of the ethnographically described Sinkyone, Wiyot, Yurok, Tolowa and other north coast tribes. Sites dating to this time are found throughout the western North Coast Ranges in moderate density.

The Late Period assemblage was first described by Loud based on data collected during an archaeological excavation of CA-HUM-67, the Wiyot village of Tuluwat on Gunther Island in Humboldt Bay. Tuluwat evidences several specialized tool kits intended for a variety of subsistence activities, including sea and terrestrial mammal hunting, fishing, and vegetal resource procurement and storage. Significant traits include a well-developed wood-working technology, riverine fishing specialization, wealth consciousness, and distinctive artifact types including zoomorphs, large obsidian ceremonial blades, antler spoons, steatite bowls and pipes, and small distinctive barbed projectile points. Late period Wiyot populations were concentrated in permanent villages situated around Humboldt Bay and coastal lagoons, protected coastal terraces, and adjacent to rivers and stream intersections. This adaptation is similar to, but a more refined and specialized form of, the preceding adaptation. Exchange networks had become regularized in the Late Period. Trade is documented both archaeologically and ethnographically, with exchange relationships reaching north to Vancouver Island for dentalium shells, east to the Warner Mountains and Medicine Lake Highlands for obsidian, and south to the San Francisco Bay region for obsidian and clam shell disc beads.

Late period sites on the Samoa Peninsula have recently been investigated near Samoa, 1.4 miles north of the Project Area, and at Manila, 3.1 miles north of the Project Area. Site CA-HUM-0023 (P-12-000081), located half a mile northwest of Samoa on the east side of the peninsula, contains the remains of the ethnographic Wiyot site of Wikti. The ceremonial village site was first documented by L.L. Loud in 1918 and subsequently by Gladys Nomland and Alfred Kroeber, and by Sonia Tamez in 1975, C. Hart Merriam in 1976 and Bob Benson in 1977. The excavation of a single 1x1 meter unit at this site revealed an assemblage “consistent with those recovered at other shell middens around Humboldt Bay”.

The excavation at Manila was important in its identification of the first evidence on California’s north coast of mass-harvesting of fish (particularly smelt) and shellfish, and of site components which exceed in age by several hundred years those at the Wiyot village of Tuluwat (CA-HUM-0067) on Indian Island (also known as Tuluwat Island), which was excavated by Loud in 1918. The Manila site (CA-HUM-0321) was found to contain an intact, stratified midden deposit up to a depth of 205 centimeters.

Both of these sites contain intact midden deposits capable of yielding data which would make them eligible for inclusion on the NRHP under Criterion D. The Samoa site (CA-HUM-0023) was an important ceremonial site for the Wiyot people and is also likely eligible under Criterion A for being associated with important events (the occurrence of ceremonial dances significant to the Wiyot people).

Post Contact (150 B.P. to Present Day)

Generally, traditional Native Californian material, economic, social, and ideological culture was disrupted by contact with Russian traders, Spanish sea vessels, Euro-American settlement, and U.S. government policy. This produced significant depopulation and relocation of Native Californians from most of the lands they occupied as Euro-American culture became dominant (Rhode 2005). As a result, Native American populations reacted, and their material culture changed through a system of pressured assimilation and acculturation into Euro-American society. These pressures resulted in a change in settlement patterns and procurement strategies; as well as a synthesis of adaptive material culture expressed by projectile points and tools made from flaked window glass, tin cans converted to uses other than food storage (candle holders, strainers), and the presence of glass beads.

Ethnographic Context

The Project Area is located on the Samoa Peninsula, one mile west of Eureka, California. This is within the traditional territory of Wiyot Tribe, which once encompassed several hundred square miles extending from the Bear River

Mountains in the south to the Little River in the north; and in general, the first mountain range crest to the east. The territory was divided into three regions, with the inhabitants of each speaking a mutually intelligible language: lower Mad River (*batwat*), Humboldt Bay, including the current Project Area (*wiki*), and lower Eel River (*wiyot*). It is the name of the Eel River division, which is now used exclusively in accounts pertaining to the entire group.

The Wiyot language has been categorized as Algonquian-based. In it, the people called themselves the Soo-lah-te-luk. The name “Wiyot” itself is derived from the Yurok term “weyetor “weyot”; the Yurok, who lived to the north, also spoke a language classified as Algonkian. Although the Wiyot and Yurok languages are distinctly different, linguists have linked the two in “a provisional group called Ritwan” that is alternatively classified as Algic.

Based on archaeological and linguistic evidence it is believed the Wiyot entered the area around 1050 BP from the Columbia River Plateau. The Yurok probably entered the region some 200 years later, taking up residence north of the Wiyot territory. The Tolowa, Chilula, and Hupa (Athapascan group) followed in 650 BP.

Ethnographic sites in the Project vicinity which were mapped by L.L. Loud during his field work in 1913, include CA-HUM-20, and -21. These sites were mapped by Loud roughly equidistant from each other and plotted on the east side of the Peninsula, close to the shore of the Humboldt Bay channel.

Site CA-HUM-21 was mapped near the northern end of the Project Area, beneath what is now concrete foundations associated with lumber storage yards formerly operated by L-P. Loud described this site as a village or camp site used by Wiyot people as late as 1850, and documented the site name as *watšeLwatšk*. No other description of the sites is provided; and no evidence of Loud’s site #21 has been reported since 1918. Site CA-HUM-20, is mapped on the east side of the peninsula, at the south end of the former pulp mill built by Georgia-Pacific Corporation in 1965. This site was generally plotted within the current Project Area, but not otherwise mentioned in Loud’s ethno-geographic review.

Unfortunately, many of the sites described by L.L. Loud over a century ago have been damaged or destroyed since the early 1900's. It is likely that the two ethnographic Wiyot village sites mapped by Loud in the vicinity of the Project Area were damaged or destroyed during construction activities throughout the 20th century. Historical areal imagery shows huge changes to the landscape during construction, the entire area was excavated, graded and filled between 1958 and 1965.

Historic Context

European expeditions began to “discover” Humboldt Bay in 1806, though the greatest impact to indigenous peoples came during the California Gold Rush which brought immigrant settlement to the Bay. The massacres of 1860 resulted in the destruction of Wiyot communities and culture so that few indigenous people remained on the Peninsula. The Peninsula has been the subject of more intense study over the last twenty years and documentation of early habitation is still ongoing.

The California Gold Rush created a demand for timber for mining, railroads, shipping and building throughout California. This was the era of tidewater lumber from 1850-1882 where sailing ships and steam powered sawmills were dominant. Ryan, Duff & Company in 1852 ran a ship, the Santa Clara, aground at Eureka and then used the engine to power their first mill. Axe men and oxen teams harvested timber from forests close to water's edge and tram and skid roads made it easier to drag logs to the edge of the water. Logs were rafted to tidewater-sited mills along Humboldt Bay and Trinidad Bay where sailing ships then carried the export lumber to San Francisco and ports on the Pacific Coast.

In 1861 George M. Fay and his brother Nathan set up a shipbuilding business in what was known as Finntown, between Fairhaven and Samoa. Already a noted shipbuilder, Hans Bendixsen purchased 4.11 acres in Fairhaven from the Fay brothers in 1873 and moved his shipyard out of Eureka. The first permanent Caucasian settler on the Peninsula was John Henry Brown, a dairyman who established a ranch near the present-day town of Samoa in 1865. Most development was close to the shore, since the forests were dense, there were no roads, and access around the Bay was only by ship. In 1889, local real estate developers formed the Samoa Land and Improvement Company and purchased 270 acres of land on the Peninsula opposite Eureka and laid out the town of Samoa. T.A. Pennington built

the first resort on the Bay in 1891, on the site where the Samoa Block is now located. The bathhouse contained a steam heated indoor pool for men, another for women and children, with showers, dressing rooms, and a private dock.

The turn of the century ushered in a lumber boom with an infusion of investors from the East who enabled the construction of larger mills and railroads to log the interior forests. After the Vance Mill & Lumber Company's Eureka mill burned in 1892, the owners decided not to rebuild the mill in Eureka but to purchase cheaper land in West Eureka (Samoa) from the Samoa Land Company. This was also a period of technological innovation, with steamships replacing sailing ships and rail lines replaced oxen. Dry level land above the tideline in Samoa was limited, so the Vance Lumber Company filled in the shoreline before erecting any buildings. A wall of sand was created around the entire waterfront, with a layer of redwood bark 12 feet thick on three sides. A sawmill and shop complex were constructed along with docks and wharves to accommodate large sailing ships and, later, for steamships. The Eureka and Klamath rail line were constructed in 1896 by the lumber company. In 1899 they constructed depots in Samoa and Arcata, with a car shop and roundhouse in Samoa. Vance Avenue and the rail line adjacent to the Samoa Pulp Mill site are remnants of this period.

In 1900 A.B. Hammond purchased the Vance mill and property. The first worker housing was constructed in 1903, including single family cottages and bunkhouses for single men. By 1912, the Hammond Lumber Co. had purchased all remaining privately owned residences in Samoa. They eventually acquired the tracts south of Samoa along Humboldt Bay, as well as lands adjacent to their rail line on the Peninsula. Extensive building in both the town and the mill yard was conducted in two phases between 1900 and 1930. The mill was completely upgraded, and the rail yard buildings expanded. Additions to the town included offices and shops at the Samoa Block, the butcher shop and cold storage plant, the bakery, ice plant; a new cookhouse; new houses along Cutten, Cadman Court, Rideout, Vance and Bayview; along with remodeling of a lodging house into homes on Vance; and the construction of the Hostelry. The bathhouse and dock were demolished and replaced with a new wharf. A second phase of construction in the 1920s added a new gymnasium, a Men's Recreation Hall for the residents of the bunkhouses, the Women's Club House, new worker neighborhoods, a Craftsman Bungalow Manager's House, and the paving of Vance Avenue and residential streets.

Over time, some operations would be expanded while others were phased out-as the company changed its product line. Hammond had invested in the Bendixsen shipbuilding operation in Fairhaven and other mills on the Peninsula. The company had constructed a second yard south of town during WWI, north of the Samoa Pulp Mill, but this was only a temporary measure. With the completion of an overland rail line in 1914, extensive road building locally, and new highways from the 1930s through the 1950s, the rail yard turned to servicing trucks and other equipment. Many of the resources constructed by the Hammond Lumber Company in the company town and Rail Yard are intact and have been proposed for listing in the National Register. Most of the original Mill Yard buildings and structures in Samoa have been demolished as health and safety hazards.

During the 1930s, the lumber industry entered an era of transition. The Great Depression had slowed construction everywhere and only four lumber companies remain in operation in Humboldt County, including the Hammond Lumber Company. Mills that had been marginally profitable became insolvent and many of the small lumber companies were soon absorbed by the larger operations. Major fires from 1936-1939 caused timber losses throughout the region, soon trucks and tractors begin to replace logging railroads in field operations. When a major fire in Trinidad destroyed timberlands, railroads and bridges in 1946, railroad lines were not reconstructed. After World War II, the demand for lumber rose to its highest level in 40 years. Redwood was still in demand for lumber, but the industry soon turned to undeveloped timber lands and untapped stands of Douglas Fir which could also be used for plywood and pulp. Truck transportation and improved roads made residential logging camps unnecessary, and rail use also declined. Roads had improved on the Peninsula and some workers now preferred to reside in nearby towns and commute, though many families preferred to raise their families in Samoa. Numerous small mills abounded in Humboldt County though increased mechanization within the industry also led to a decline in the number of workers in the mills, and in the woods.

Local business leaders were concerned about long term job potential in the lumber industry, and this had triggered a community wide discussion about industrial development and the direction of the lumber industry in Humboldt County. At that time, the demand for lumber was the highest in 40 years, but was now competing with new building materials

such as plywood, plastics, aluminum and steel. While redwood lumber was still in demand, untapped stands of Douglas Fir could also be used for plywood and pulp. Lobbying for a pulp mill had begun more than ten years before the first one would be constructed. In 1954, the Stanford Research Institute had identified pulpwood as a major growth area in the forest products industry. Minimizing the amount of waste in the field and in the mill had become more cost effective with advent of wood products such as artificial boards. Abundant sources of waste wood were available locally, however a significant factor in attracting a pulp mill would be the ability to provide reliable water sources.

Creating a Regional Water Management System

A study of water resources on the North Coast, completed in 1957, concluded that construction of a dam on the Mad River at Ruth in Trinity County was the most feasible option-only if a pulp mill were located in the county and used the water. Based on a Preliminary Report made to the Board of Supervisors in 1955, the Citizens Committee of Humboldt County for Industrial Development was created. Two of the Committee members were the Greater Eureka Chamber of Commerce and the Humboldt County Board of Trade. The campaign to create a water district got underway in 1956 with newspaper ads, editorials and articles targeting voters within the proposed district. The vote on March 13, 1956, with 6,972 in support and 840 opposed, was overwhelmingly in favor of creating the new water district. The Humboldt Bay Municipal Water District was formed in 1956 to develop a regional water system to serve the greater Humboldt Bay area of Humboldt County. A bond act allowing the district to issue $12 million in general obligation bonds to fund the project was later approved by sixty nine percent of the voters.

Since the proposed dam would be located in Trinity County, the approval of the Trinity County Board of Supervisors was also required. Residents were opposed to flooding the valley while Trinity County officials were concerned about the loss of assessable land. The Humboldt County Grange argued that water usage did not justify building a reservoir. Negotiations moved forward when the water district agreed to pay an annual fee in lieu of lost taxes, and granted Trinity County the right to develop recreation areas adjacent to the reservoir.

The new Humboldt Bay Municipal Water District then entered into an agreement with Bechtel Corporation for an engineering survey of the proposed pipeline from a diversion dam at Essex to potential pulp mill sites on the Samoa Peninsula. At the time that Georgia Pacific had finalized the agreement to purchase Hammond Lumber Company, in October 1956, company president Owen Cheatham had expressed the long-term goal of constructing a mill for pulp and paper products. Long term contracts with the pulp mills would be the key to financing the development of a regional water system, and to provide affordable water rates to local residents. On September 23, 1959, the headline on the Humboldt Standard read “Pulp Mill Contracts Inked; Ruth Dam Job Set for March, Georgia-Pacific, Simpson Agree to Buy Water from District in July, 1962. Another Kraft pulp mill operation, a collaborative venture by Simpson Paper and Fiberboard Corporation, to be located in Fairhaven was announced in 1964, and would operate under the name Crown-Simpson.

The primary source of water for the Humboldt Bay Municipal Water District is R.W. Matthews Dam which forms Ruth Lake, a 48,000 acre-feet reservoir in southern Trinity County. Diversion, pumping and control facilities are located at Essex on the Mad River near Arcata. The District sells treated drinking water to municipal customers and untreated surface water to industrial users, serving about two thirds of Humboldt County. For over 50 years, the District also supplied untreated water to the two pulp mills on the Samoa Peninsula until the mills shut down.

The Georgia Pacific Corporation 1956-1972

In 1956, the Hammond Lumber Company and all its assets were sold to Georgia Pacific for $75,000,000. Georgia Pacific had been founded in 1927 in Augusta, Ga., by Owen R. Cheatham as the Georgia Hardwood Lumber Co., a wholesaler of hardwood lumber. From 1941-1945 it was the largest supplier of lumber to the U.S. armed forces. Determined to establish itself in the Western forest and building supply markets, in 1947 the company acquired their first West Coast facility, a plywood plant at Bellingham, Wash. In 1948, the company name was changed to Georgia-Pacific Plywood & Lumber Co. and added plywood mills at Olympia, Washington, and Springfield, Oregon. In 1953, moved their headquarters from Augusta, Ga., to Olympia, Wash. Then in 1954, they moved their headquarters to Portland, Ore. In 1956 they acquired both Coos Bay Lumber Co., Coos Bay, Ore., and the Hammond Lumber Co. Well

established on the West coast, in 1957 they entered the pulp and paper business at Toledo, Ore., with construction of a Kraft pulp and linerboard mill.

In 1955, Robert E. Floweree Jr., vice president of Georgia Pacific Plywood Company, purchased sufficient shares to permit him access to the Hammond Lumber Company's financial records. Newly reorganized as the Georgia Pacific Corporation in 1956, a meeting was held between Georgia Pacific and Hammond Lumber Company. As a result, what was then called "the largest lumber deal in California history" was concluded and the new Hammond-California Redwood Company became a wholly owned subsidiary of Georgia- Pacific. In 1958, a new pulp mill made use of Douglas fir logs and a stud mill utilized the plywood cores. Though upgraded several times, in 1964 a new sawmill replaced the original mill which had been in operation since 1893. The Georgia-Pacific California operations now included mills in Samoa, Big Lagoon, Carlota, Rockport, Fort Bragg and Cloverdale, on the North Coast; Feather Falls mill in Butte County, and timberlands on the Van Duzen and Eel Rivers.

By far the most significant project developed by Georgia Pacific in Humboldt County, was the new bleached Kraft paper pulp mill that opened in 1965 (Figure 6). This was the first pulp mill to be designed and constructed to use redwood chips as a raw material for bleached Kraft pulp. The GP Samoa Pulp Mill was constructed at a cost of $30,000,000 by Hoffman Construction Company of Portland, Oregon. Their contract covered all building construction, roads and railroads, utilities, equipment setting, piping and electrical systems, as well as a pulp mill dock. The first work crew arrived on February 17, 1964. By August 1965, the first load of pulp had been shipped, though the dock would not be completed until January 1966. The chip handling and log fuel facility required additions that same year. In 1966, the Crown-Simpson bleached Kraft pulp mill was built at Fairhaven, just south of the Georgia Pacific Plant. Both pulp mills would eventually produce the same basic products.

Along with the construction of numerous buildings and structures, site preparation included the construction of temporary and permanent roads. A water line owned by the new Humboldt Bay Water Resources District was constructed across the Peninsula and connected the mill to the waters of the Mad River. The new dock would not be completed until January 1966. About that same time, the water treatment system was modified and there were some additions to the chip handling and storage systems.

The Louisiana Pacific Corporation 1972-1998

In 1971, the Federal Trade commission challenged the Company's acquisition of 16 firms and 630,000 acres of pine forests for plywood. The Federal Trade Commission wanted the Company to divest itself of most of the plants and prohibit any further acquisitions in the forest products industry for ten years. In a negotiated settlement, Georgia Pacific agreed to transfer 20 percent of their assets to a new Louisiana Pacific Corporation, including properties in Alaska, Washington, Oregon, Idaho, Texas and Louisiana.

The new corporation would be based in California, with divisions based out of Ukiah and Samoa that included three redwood sawmills. In 1973, the Louisiana Pacific Corporation was formally separated from Georgia Pacific and began to expand its holdings. While the industry once depended upon markets in the South Pacific, such as Hawaii, Australia and New Zealand, now Japan and other Asian markets were the major clients for pulp, chips, plywood and logs. Though demand for pulp was still growing in the United States, the pulp industry was undergoing changes as new mills were being constructed in Asia to compete with domestic plants.

Changes in Ownership 1998-2013

After Louisiana Pacific sold their Samoa Division to the Simpson Samoa Company in 1998, the Samoa Pulp Mill went through a series of owners who kept the plant in operation but made few changes to the buildings and structures on the site. Though the Pulp Mill was reopened in 2000, Simpson was primarily interested in the timber resources included in the sale and sold the town to Samoa Pacific Group LLC in 2000. The Samoa Pulp Mill remained in operation until 2005. That year, the Samoa Pulp Mill became the first Chinese-owned mill in the United States when it was purchased by Evergreen Pulp.

In 2006 Evergreen was sued over "significant and ongoing violations of air quality," violating the federal emission standard for hazardous air pollutants by approximately 230 percent. Another concern was the presence of numerous chemicals stored at the site, and potential for spills into Humboldt Bay. In 2007, the California Air Resources Board,

the U.S. Environmental Protection Agency, and the North Coast Unified Air Quality Management District announced a $5 million settlement with Evergreen Pulp, Inc. to protect air quality by reducing emissions of particulate matter and hazardous air pollutants. Evergreen had agreed to install scrubbers to improve air quality, when instead it suddenly halted operations in 2008, abandoning the pulp mill and the environmental remediation.

In 2009 a local investor, Freshwater Tissue Company, bought the plant but was unable to obtain financing during the major economic recession. An application for federal stimulus funds to convert the Samoa mill into an integrated tissue plant, which included the removal of hazardous materials, was denied. California's last pulp mill and the only chlorine-free/dioxin-free mill in the United States finally closed in 2009. In an effort to recover some costs, much of the equipment that was still in sound condition, including the boilers, was sold. Due to the hazardous materials still stored at the site at that time, the property was not sold again until 2013.

The Samoa Pulp Mill site was acquired by Humboldt Bay Harbor, Conservation and Recreation District in August, 2013. Two parcels were purchased at a cost of $1 with the agreement to accept responsibility for disposal of all aboveground hazardous waste. Since that time, the "liquors," chemicals used to process the pulp, have been removed up by an out of state company for reprocessing and reuse. The Harbor District now owns 89 acres that were part of the Pulp Mill site. The site has now been designated Redwood Terminal Berth #2 (RMT II) and includes docks and buildings with 220,000 square feet of warehouse space, a 30 million gallon per day water treatment system and 1.5 miles of ocean outfall pipe. Much of the pulp mill equipment that remained was sold to generate funds to assist in infrastructure improvements. Working with the EPA and Coast Guard, the storage tanks and 800 truckloads of toxic chemicals from the pulp mill operations were removed by 2014. The final removal of chemical sludge was completed in 2015. Site cleanup continues in order to ready the property for leasing.

The Pulp Industry

The manufacture of pulp, paper and paper products ranks among the world's largest industries. Mills are found in more than 100 countries in every region of the world. Kraft pulp, the type manufactured at the Samoa Pulp Mill, is converted into multi-use paper products such as high-quality writing paper, books and grocery bags. At the time that the Samoa Pulp Mill was planned, consumption of pulpwood products was projected to double within 25 years.

Pulp is generally manufactured in large mills near an abundant source of fiber. These are mainly forested regions, often part of large, integrated forest products companies. This ensures a reliable source of fiber, efficient use of wood waste, and available buyers. In Humboldt County, disposal of wood waste had become an environmental problem, since wood waste was typically burned inside a conical or "teepee" burner with a screened cap that allowed smoke, ash and occasional sparks to escape. There were about 700 sawmills in the three counties of Humboldt Del Norte and Trinity, and no alternative to handle such a large volume of sawmill waste at that time. According to former Plant Manager Fred Martin, the Samoa Pulp Mill had been designed as a bleached Kraft pulp mill to use redwood waste though it could handle all standard sources, including waste paper, debarked pulpwood, and wood waste. At the height of operation, 200 chip trucks per day would deposit wood waste at the Samoa Pulp Mill. Papermaking is thought to have originated in China around 100 A.D, utilizing rag, hemp and grasses using stone mortars to separate the fibers. Though mechanization would increase over time, continuous papermaking machines were not patented until the late 19th century. The term Pulp describes the fibrous material used to make paper, very fine fibers of cellulose. New methods for pulping wood were developed between 1844 and 1884, and included both mechanical abrasion and the new (Kraft) chemical methods. Kraft is taken from the German word for strength and describes a strong brown paper made from boiling wood chips in an alkaline solution. In these Digesters, chemicals are used to dissolve the lignin away from the cellulosic fibers. The invention of this process initiated the modern era of pulp and paper manufacturing.

Bleached pulp mills have the equipment to bleach the fiber from brown to nearly pure white in a section of the mill known as the Bleach Plant. A bleached mill can make unbleached (brown) pulp, semibleached (off-white) or bleached pulp (nearly pure white). Brown stock mills cannot make bleached or semi-bleached pulp. Both peninsula mills were bleached mills and could produce pulp suitable for bags and containers along with higher quality paper where strength, whiteness and resistance to yellowing were important.

No paper was manufactured at either the Samoa Pulp Mill or the Crown Simpson Pulp Mill at Fairhaven. The facilities at the Samoa Pulp Mill included a dock for shipping, a chip storage area just north of the mill, chip conveyors leading to the digester, a recovery boiler, water treatment plant and effluent clarifying ponds. The capital costs of building these plants is high so that new and upgraded plants usually use mechanized and continuous process, as well as electronic monitors and computer controls which require fewer workers.

Tribal Consultation

During the cultural investigation, representatives of Nordic Aquafarms met with representatives of the local Tribal community to discuss the proposed Project. An in-person meeting and Project presentation occurred on March 10, 2020 attended by Nordic Aquafarms employees, Marianne Naess, David Noyes and Lynette Mullen as well as the Wiyot Tribe's Tribal Historic Preservation Officer (THPO) Ted Hernandez and Cultural Assistant Hazel James, the Blue Lake Rancheria's THPO, Janet Eidsness and Environmental Program Coordinator Jacob Pounds and the Bear River Rancheria's THPO Erika Cooper and Chairman Barry Bernard.

Roscoe and Associates initiated correspondence regarding this Project with local tribal representatives based on prior knowledge of the area, and professional relationships with the area's three local Wiyot groups who have shown consistent interest in the Samoa Peninsula area. This correspondence was conducted to request information regarding known archaeological sites within the Project's vicinity, and to discuss any potential concerns these groups may have regarding the protection of archaeological and/ or tribal cultural resources. On January 20, 2020, Mr. Roscoe sent letters to the Blue Lake Rancheria Tribal Historic Preservation Officer (THPO), Ms. Janet Eidsness as well as Bear River Band of the Rohnerville Rancheria THPO, Ms. Erika Cooper and the Wiyot Tribe's THPO, Mr. Ted Hernandez. Mr. Roscoe followed up with phone calls to all three of these representatives.

Mr. Roscoe met with Ms. Cooper at the Project Site on January 23, 2020, to inspect the area where the previously identified archaeological sites are located, and to discuss a survey strategy. In addition, on February 12, 2020, Mr. Roscoe and Research Associate Melinda Salisbury met at the Project Site with all three THPOs, Ms. Cooper, Ms. Eidsness and Mr. Hernandez. In these meetings it was agreed that, due to the limitations of the surface survey, including large areas of the project that are covered by buildings, concrete and fill; the cultural resources investigation should include a review of the geotechnical work conducted by SHN in 2020 as well as the excavation of manual augers by Roscoe and Associates, in the vicinity of the previously documented archaeological site P-12-000078 (CA-HUM-20).

After the subsurface testing work was completed in the vicinity of site P-12-000078 (CA-HUM-20), Mr. Roscoe followed up with an e-mail to these three tribal representatives on March 1, 2020. This e-mail described the work completed, and informed the representatives that no evidence of the previously documented archaeological site was identified as a result of the subsurface testing. Additionally, Mr. Roscoe reported that the geotechnical borings conducted by SHN (2020) did not find any evidence of cultural material during their work. This correspondence resulted in a request from all three representatives that an agreement be implemented to provide a cultural monitor during construction in areas that the tribe deems culturally sensitive. The representatives also requested that they be allowed to provide a plan for monitoring and protocols for the treatment of inadvertent discoveries. This is because much of the Project Area is paved, and survey of the direct area of impact is impossible without removal of the pavement.

Mr. Roscoe contacted the NAHC on March 23, 2020, to request the results of a search of the sacred lands database for previously identified sites of concern within the Project Area or within a one-half mile radius. On March 26, 2020 the NAHC responded stating that the results for the record search of the NAHC Sacred Lands File were negative.

In July of 2020, a draft of this report was provided to THPOs, Ms. Cooper, Ms. Eidsness and Mr. Hernandez for their review and comment prior to report finalization. THPO Eidsness replied to the email on August 18, 2020 with a few corrections, comments and questions. Of primary concern were clarifications regarding the projected locations of P-12-000078 (CA-HUM-20) and P-12-000079 (CAHUM- 21), the depth of investigation for these resources and the planned extent of the work in their respective vicinities. After resolving all issues addressed by Ms. Eidsness, Roscoe and Associates responded on August 27, 2020 with an updated report draft and a list of responses to THPO Eidsness' questions and comments.

Part of Roscoe and Associate's reply included an explanation that by July of 2020, Nordic Aquafarms LLC had decided to abandon their plans for a solar array in the vicinity of P-12-000079 (CA-HUM-21). RA's reply also discussed that there is approximately 12-feet of fill in the vicinity of P-12-000078 (CA-HUM-20), and that as currently proposed, the Project will not exceed 12-feet in this area.

After receiving the updated draft and responses, Ms. Eidsness stated that the report was satisfactory and that the THPO's for all three local Wiyot tribal groups would like to revisit the construction plans for ground disturbance in the area of P-12-000078 (CA-HUM-20) just prior to Project implementation. Ms. Eidsness stated further that the groups would be particularly interested if construction plans include ground disturbance below the existing 12-feet of fill, or if ground disturbance is proposed in the vicinity of P-12-000079 (CA-HUM-21).

On May 28, 2021, a site tour was conducted with representatives of the Wiyot Tribe to assess the presence of botanical species of cultural significance; no such botanical species were identified during the site tour.

With the addition of the Humboldt Bay Water Intakes component, Roscoe and Associate’s contacted the NAHC on June 15, 2021, to request the results of a search of the sacred lands database for previously identified sites of concern within the updated Project Area or within a one-half mile radius. On June 25, 2021, Roscoe and Associate’s sent letters to representatives of the Bear River Band of the Rohnerville Rancheria, Blue Lake Rancheria the Wiyot Tribe and the Cher-Ae Heights Indian Community of the Trinidad Rancheria, to inform them of the Project addendum. Mr. Roscoe and Ms. Salisbury met with Janet Eidsness, THPO for the Blue Lake Rancheria and Ted Hernandez, THPO for the Wiyot Tribe onsite on July 1, 2021

After the meeting with the two THPOs, RA sent an e-mail to the THPOs for the Bear River Band of the Rohnerville Rancheria, Blue Lake Rancheria the Wiyot Tribe to follow up. No additions to the previous recommendations were requested.

On July 7, 2021, the NAHC responded stating that the results for the record search of the NAHC Sacred Lands File were negative. NAHCs list included additional contacts that were not sent a letter in the initial outreach on June 25, 2021. Letters were sent on July 14, 2021to representatives of the Big Lagoon Rancheria, the Karuk Tribe, the Round Valley Reservation/ Covelo Indian Community, and the Yurok Tribe. No responses have been received from these groups.

3.4.3 Regulatory Framework

Federal

National Historic Preservation Act, Section 106

There is no federal permit or funding for the Project, thus formal review under Section 106 of the National Historic Preservation Act would not occur for this Project. However, Section 106 of the NHPA requires that, before beginning an undertaking, a federal agency, or projects that the USACE fund or permit, must take into account the effects of the undertaking on historic properties and afford the Advisory Council on Historic Preservation and other interested parties an opportunity to comment on these actions.

Section 106 of the NHPA prescribes specific criteria for determining whether a project would adversely affect a historic property, as defined in 36 Code of Federal Regulations (CFR) 800.5. An impact is considered significant when prehistoric or historic archaeological sites, structures, or objects listed in or eligible for listing in the National Register of Historic Places (NRHP) are subjected to the following effects:

– Physical destruction of or damage to all or part of the property,
– Alteration of a property,
– Removal of the property from its historic location,
– Change of the character of the property’s use or of physical features within the property’s setting that contribute to its historic significance,

- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features,
- Neglect of a property that causes its deterioration, and
- Transfer, lease, or sale of the property.

Cultural resource significance is evaluated in terms of eligibility for listing in the NRHP. NRHP significance criteria applied to evaluate the cultural resources for this Project are defined in 36 CFR 60.4 as follows:

> *The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, association, and*
>
> *A. That are associated with events that have made a significant contribution to the broad patterns of our history; or*
> *B. That are associated with the lives of persons significant in our past; or*
> *C. That embody the distinctive characteristics of type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or*
> *D. That have yielded, or may be likely to yield, information important in prehistory or history.*

Specific regulations regarding compliance with Section 106 state that, although the tasks necessary to comply with Section 106 may be delegated to others, the federal agency is ultimately responsible for ensuring that the Section 106 process is completed according to statue.

State

Office of Historic Preservation

The California State Office of Historic Preservation (OHP) is responsible for administering federally and state mandated historic preservation programs to further the identification, evaluation, registration and protection of California's irreplaceable archaeological and historical resources under the direction of the State Historic Preservation Officer and the State Historical Resources Commission.

OHP reviews and comments on federally sponsored projects pursuant to NHPA Section 106, and state programs pursuant to PRC Sections 5024 and 5024.5, which provide policies and plans for preserving and maintaining all state-owned historical resources or eligible historical resources. OHP also reviews and comments on local government and state projects pursuant to CEQA.

A variety of programs have been created by OHP in order to manage historic resources and to determine eligibility for classification as a historic resource. The programs that OHP administer includes: the NRHP, the CRHR, the California Historical Landmarks, and the California Points of Historical Interest. Each program has different eligibility criteria and procedural requirements.

California Register of Historic Resources

Cultural resource significance is evaluated in terms of eligibility for listing in the CRHR. The State Historical Resources Commission has designed the CRHR program for use by state and local agencies, private groups and citizens to identify, evaluate, register and protect California's historical resources. The Register is the authoritative guide to the state's significant historical and archaeological resources. CRHR criteria for designation include:

- **Criterion 1**. Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
- **Criterion 2.** Associated with the lives of persons important to local, California or national history.
- **Criterion 3.** Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values.

– **Criterion 4.** Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

The CRHR criteria is nearly identical to the federal NRHP criteria, and are used in tandem as “1/A” or “2/B” when identifying impacts. There is a slight difference in meaning between the CRHR and NRHP regarding Criterion 3 (Criterion C in the NRHP), which will be evaluated when determining impacts and significance.

California Public Resources Code

As part of the determination made pursuant to Public Resources Code (PRC) Section 21080.1, the lead agency must determine whether a project would have a significant effect on archaeological and paleontological resources.

Several sections of the PRC protect cultural resources and PRC Section 5097.5 protects vertebrate paleontological sites located on public land. Under Section 5097.5, no person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site (including fossilized footprints), inscriptions made by humans, rock art, or any other archaeological, paleontological, or historical feature situated on public lands, except with the express permission of the public agency that has jurisdiction over the lands. Violation of this section is a misdemeanor.

PRC Section 5097.98 states that if Native American human remains are identified within a project area, the landowner must work with the Native American Most Likely Descendant as identified by the Native American Heritage Commission (NAHC) to develop a plan for the treatment or disposition of the human remains and any items associated with Native American burials with appropriate dignity. These procedures are also addressed in Section 15046.5 of the CEQA Guidelines. Section 30244 of the PRC requires reasonable mitigation for impacts on paleontological and archaeological resources that occur as a result of development on public lands.

California Health and Safety Code

California Health and Safety Code (HSC) Section 7050.5 prohibits disinterring, disturbing, or removing human remains from a location other than a dedicated cemetery. Section 7050.5 also requires that construction or excavation be stopped in the vicinity of discovered human remains until the Coroner can determine whether the remains are those of a Native American. If determined to be Native American, the Coroner must contact the California NAHC.

California Native American Historical Cultural and Sacred Sites A*ct*

This Act applies to both state and private lands. The Act requires that upon discovery of human remains, that construction or excavation activity cease and that the county Coroner be notified. If the remains are of a Native American, the Coroner must notify the NAHC. The NAHC then notifies those persons mostly likely to be descended from the Native American remains. The Act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods.

Regional and Local

Humboldt Bay Area Plan – Local Coastal Plan

3.18 Archaeological and Paleontological Resources

Where new development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

A. PLANNED USES

The Native American Wiyot tribe, part of the Algonkian family, once occupied the Humboldt Bay area. The Humboldt County Department of Public Works has identified 117 known archaeological sites in this planning area. The Wiyots depended heavily upon the resources of Humboldt Bay, and their heritage is an important resource

within the Humboldt Bay area. Areas with great archaeological and paleontological values have been identified within the planning area, as identified with the Humboldt County Public Works, Natural Resource Division.

B. DEVELOPMENT POLICIES

1 Reasonable mitigation measures may include but are not limited to:

a. *Changing building and construction sites and/or road locations to avoid sensitive areas.*

b. *Providing protective cover for sites that cannot be avoided.*

c. *Where appropriate and with the approval of all parties concerned, provide for the removal or transfer of culturally significant material by a professional archaeologist or geologist.*

3.4.4 Evaluation Criteria and Thresholds of Significance

Evaluation Criteria	Significance Thresholds	Sources
Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	Adverse alteration of those physical characteristics of a historical resource that justify its eligibility for the, California Register of Historical Resources (CRHR) or as a local landmark	CEQA Guidelines Appendix G, Checklist Item V (a)
Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Adverse alteration of those physical characteristics of an archaeological resource that justify its eligibility for the CRHR or as a unique archaeological resource	CEQA Guidelines Appendix G, Checklist Item V (b)
Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?	Disturbance of human remains, including Native American human remains, associated grave goods, or items of cultural patrimony	CEQA Guidelines Appendix G, Checklist Item V (c)

3.4.5 Methodology

An Archaeological and Historical Resource Investigation Report was prepared by Roscoe and Associates (2020) that includes cultural and tribal cultural resources research and analysis. An addendum to that report was prepared in 2021 in order to evaluate the expanded area associated with the Humboldt Bay Intakes and pipeline component of the Project. The reports and addendum's methodology is summarized below.

Background research for the proposed Project included an examination of the archaeological site records and survey reports at the California Historical Resources Information System regional Northwest Information Center (NWIC) in Rohnert Park, California. The record search was conducted to determine if cultural or historical resources have been recorded within the Project Site or within 0.5 mile of the Project and to review cultural resource survey reports that either included the Project Site or were conducted within 0.5 mile of the Project Site.

The Project Site and the area within 0.5 mile of the Project Site comprise the Record Search Study Area (Study Area). Within this section, 'Project Area' refers to the Project Site and general surrounding area on the Samoa Peninsula. The following inventories were reviewed: the Historic Property Directory, the National Register of Historic Places (NRHP), the Determinations of Eligibility for the National Register of Historic Places, the California Register of Historical Places, and the California Inventory of Historic Resources. See Figure 2-2 for the APE.

The analysis considers direct and indirect impacts on cultural resources within the Project Area. Potential impacts on historic resources are assessed by identifying the activities that could affect the architectural resources that have been identified as historical resources for the purposes of CEQA.

3.4.6 Impacts and Mitigation Measures

Impact CR-a: Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? (No Impact)

Terrestrial Development

Historical resources on the Terrestrial Development Site were documented and evaluated by Roscoe and Associates (2020). The Terrestrial Development component would demolish the remaining structures of the former Samoa Pulp Mill. The evaluation of the Samoa Pulp Mill's historical significance for each of the four Evaluation Criteria established by the National Register of Historic Places (36 CFR 60.4) (NRHP) and the California Register of Historic Resources (CRHR) conducted by Roscoe and Associates (2020) is summarized below.

> ***Criterion A:*** *The Samoa Pulp Mill is historically significant under Criterion A, at the local level of significance, and is associated with the industrial development of the Redwood Region of Northern California. The Samoa Pulp Mill was the first mill designed to utilize redwood waste materials in the United States and was another step in the transformation of the redwood logging and lumber industry in this region into the modern wood products industry. After 1998, when the Pulp Mill was sold by Louisiana Pacific, it passed through the hands of several owners and operated intermittently. Although there had been several other pulp mills in California during this period, at the time the Samoa Pulp Mill finally closed in 2009, it was the last pulp mill in operation in the state. In the interim, some buildings and structures have been demolished and the equipment removed and sold.*
>
> ***Criterion B:*** *The Samoa Pulp Mill is not associated with any individuals or events significant to the history of the community. While this lot was once part of the Hammond Lumber Company operation at Samoa, it appears to have remained largely open space until the Samoa Pulp Mill was constructed.*
>
> ***Criterion C:*** *The Samoa Pulp Mill is not of unique design or construction. It was designed according to a standard plan for pulp mills at that time, and utilized manufacturing processes typical of the industry. Recovery Boiler 3 was constructed in 1995 as the result of a major lawsuit in 1989-1991 regarding poor air quality and pulp mill emissions. The added air filtration system and the least toxic chemical processing equipment and procedures were notable improvements in design and function. However, these changes were recent and are not within the Period of Significance.*
>
> ***Criterion D:*** *Much of the Samoa Pulp Mill buildings and structures have been demolished, and the remaining buildings are not of unique design or construction and were not made of unique materials. The Samoa Pulp Mill Site itself does not appear to be capable of yielding information important in prehistory or history. Additionally, it is unlikely that archaeological deposits originating from the Samoa Pulp Mill operations would yield important information about prehistory or history. Furthermore, much of the information about this site, which could be used to answer important questions about history, is publicly housed in the archives at the Humboldt State University Library, Special Collections Room.*

The buildings and structures that would have constituted the core processing and manufacturing facilities of the Samoa Pulp Mill from the Period of Significance (c. 1965-1998) have largely been demolished. Most of the remaining buildings have deteriorated and are designated as health and safety hazards, not slated for repair or unsuitable for adaptive reuse. Consequently, the buildings and structures on the Project Site no longer retain any integrity. Based on this assessment, the remaining buildings and structures identified do not meet the NHPA and CRHP Evaluation Criteria for either individually eligible historical resources or as contributors to a historic district. Therefore, the Terrestrial Development component would have no impact on historical resources.

Mitigation Measures: No mitigation is necessary.

Level of Significance: No Impact.

Ocean Discharge

The Ocean Discharge component of the Project is located off-shore in the Pacific Ocean. The Project would utilize the existing outfall during the operational phase and would not involve construction activities. Therefore, there is no potential to impact historic resources. No impact would occur.

Mitigation Measures: No mitigation is necessary

Level of Significance: No Impact

Humboldt Bay Water Intakes

Historical resources within the footprint of the Humboldt Bay Water Intakes component were documented and evaluated by Roscoe and Associates (2021). During the investigation conducted for the Humboldt Bay Intakes component Roscoe and Associates found one newly identified historic era site, the Red Tank and Dock Site; as well as two previously identified resources: the Samoa Pulp Mill (Salisbury et. al. 2020), and one railroad segment (P-12-003143) within the footprint.

The portion of railroad spur, P-12-003143, that passes through a small portion of the Humboldt Bay Intakes component footprint was determined to be constructed between 1958 and 1965, during the construction of the Samoa Pulp Mill. It is unclear from Roscoe and Associates' research whether this rail spur was constructed by Georgia Pacific to support the pulp mill's operation or by some other company in order to take advantage of the newly constructed port. There are no plans to alter or remove these rails, therefore no further assessment of their integrity or significance is presented at this time.

The Red Tank and Dock are not considered eligible as contributors to the Samoa Historic District and are not individually eligible for the NRHP or CRHR. The Red Tank was constructed after 1973 and does not meet the age threshold for being considered an historical resource. The Dock was constructed in 1965, however most of the associated buildings and other infrastructure in the vicinity has been removed. The dock does not appear eligible under Criterion A or B as it is not associated with historically significant events or people. The Dock is not eligible under criterion C because it is not of unique design or construction. The dock does not appear to be capable of yielding information important in prehistory or history. No significant alterations to either the Red Tank or Dock are proposed, therefore no further assessment of their integrity or significance is presented at this time (Roscoe and Associates 2021). No impact to historic resources would result.

Mitigation Measures: No mitigation is necessary

Level of Significance: No Impact

Compensatory Off-Site Restoration

The creosote piles to be removed are remnant from the Kramer Dock. In their current condition, the dock and remaining piles are in an extremely degraded condition and thus do not constitute a built historical resource. Removal of Spartina would not involve any historical resources. Any potential impact to historical resources related to pile and Spartina removal would be less than significant.

Mitigation Measures: No mitigation is necessary

Level of Significance: Less Than Significant

Impact CR-b: Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? (Less than Significant with Mitigation)

Terrestrial Development

The Humboldt Bay region and Samoa Peninsula were traditionally occupied by the Wiyot people. The cultural resource investigation completed by Roscoe and Associates (2020) included communication with tribal

representatives, archival research, field investigation, and evaluation of the geotechnical borings. All field investigations were negative for evidence of cultural resources (Roscoe and Associates 2020). While no direct evidence of Wiyot habitation or use was encountered, much of the Terrestrial Development Site remains capped by cement. Most of the site was levelled/filled in the 1960s. In order to provide protection for archaeological resources that may be inadvertently discovered during the course of construction, Mitigation Measure CR-1 and Mitigation Measure CR-2 would be implemented to provide cultural resource monitors during construction and establish protocols for inadvertent archaeological discovery. With the implementation of Mitigation Measure CR-1 and Mitigation Measure CR-2, the potential impact would be less than significant.

On-site and off-site dune restoration, as included in the required Restoration and Monitoring Plan (RMP) (see Section 4.4) could result in minor disturbance of dune surfaces during revegetation. Given work would occur very near the surface, disturbance of cultural resources would be unlikely. Mitigation Measure CR-1 and Mitigation Measure CR-2 would also apply to dune restoration and implementation of the RMP to ensure protocols for inadvertent discovery of cultural resources remain in place.

Mitigation

Mitigation Measure CR-1: Implementation of Protocols for Cultural Monitoring During Ground Disturbance

NAFC shall retain a qualified cultural resource monitor who is approved by the Wiyot Tribe, Bear River Band of the Rohnerville Rancheria, and the Blue Lake Rancheria to monitor ground disturbing activities related to this Project in areas the Tribes deem culturally sensitive. The three Tribal Historic Preservation Officers or their functional equivalent shall be contacted to set up and implement a cultural monitoring contract when a construction schedule has been determined. Advanced coordination with the qualified cultural monitor is required. As landowner, the Humboldt Bay Harbor, Recreation, and Conservation District (landowner) shall be provided with written verification for compliance. NAFC shall adhere to the Standard Operating Procedures for Inadvertent Archaeological Discovery (General), as detailed in the Archaeological and Historical Resource Investigation Report prepared for the Project by Roscoe and Associates (2020).

Mitigation Measure CR-2: Implementation of Inadvertent Discovery Protocols

If cultural or historic-era resources are encountered during construction activities, the contractor on-site shall cease all work in the immediate area and within a 50-foot buffer of the discovery location. A qualified archaeologist, as well as the Tribal Historic Preservation Officers for the Bear River Band Rohnerville Rancheria, Blue Lake Rancheria, and Wiyot Tribe shall be contacted to evaluate the discovery and, in consultation with the applicant and lead agency, develop a treatment plan in any instance where significant impacts cannot be avoided. The Humboldt Bay Harbor, Recreation, and Conservation District (landowner) shall also be notified. In the event of inadvertent discoveries, the Standard Operating Procedures as outlined by Roscoe and Associates (2020) shall be followed. NAFC shall adhere to the Standard Operating Procedures for Inadvertent Archaeological Discovery (General) and Standard Operating Procedures for Documenting Inadvertent Archaeological Discoveries, as detailed in the Archaeological and Historical Resource Investigation Report prepared for the Project by Roscoe and Associates (2020).

Implementation of Mitigation Measure CR-1 and Mitigation Measure CR-2 would reduce potential impacts related to inadvertent discovery of cultural resources to be less than significant.

Level of Significance: Less than Significant with Mitigation Incorporated

Ocean Discharge

The Ocean Discharge component of the Project is located off-shore in the Pacific Ocean. The Project would utilize the existing outfall during the operational phase and would not involve construction activities. Therefore, there is no potential to encounter unknown archaeological resources. No impact would occur.

Mitigation Measures: No mitigation is necessary

Level of Significance: No Impact

Humboldt Bay Water Intakes

The Humboldt Bay region and Samoa Peninsula were traditionally occupied by the Wiyot people. The cultural resource investigation completed by Roscoe and Associates (2020, 2021) included communication with tribal representatives, archival research, field investigation, and evaluation of the geotechnical borings. All field investigations were negative for evidence of cultural resources (Roscoe and Associates 2020, 2021). While no direct evidence of Wiyot habitation or use was encountered, much of the Humboldt Bay Water Intakes Site remains capped by cement and fill. Most of the site was levelled/filled in the 1960s. In order to provide protection for archaeological resources that may be inadvertently discovered during the course of construction, Mitigation Measure CR-1 and Mitigation Measure CR-2 would be implemented to provide cultural resource monitors during construction and establish protocols for inadvertent archaeological discovery. With the implementation of Mitigation Measure CR-1 and Mitigation Measure CR-2, the potential impact would be less than significant.

Mitigation

Mitigation Measure CR-1: Implementation of Protocols for Cultural Monitoring During Ground Disturbance

See above under Impact CR-b Terrestrial Development for the full text of Mitigation Measure CR-1: Implementation of Protocols for Cultural Monitoring During Ground Disturbance.

Mitigation Measure CR-2: Implementation of Inadvertent Discovery Protocols

See above under Impact CR-b Terrestrial Development for the full text of Mitigation Measure CR-2: Implementation of Inadvertent Discovery Protocols.

Implementation of Mitigation Measure CR-1 and Mitigation Measure CR-2 would reduce potential impacts related to inadvertent discovery of cultural resources to be less than significant.

Level of Significance: Less than Significant with Mitigation Incorporated

Compensatory Off-Site Restoration

Pile and Spartina removal would occur in a tidal setting where archaeological resources would not be present. Ground disturbance associated with off-site compensatory restoration would not result in disturbance to archaeological resources. However, in the event of inadvertent discovery of archaeological resources, Mitigation Measure CR-2 would be implemented, reducing any potential impact to less than significant with the incorporation of mitigation.

Mitigation

Mitigation Measure CR-2: Implementation of Inadvertent Discovery Protocols

See above under Impact CR-b Terrestrial Development for the full text of Mitigation Measure CR-2: Implementation of Inadvertent Discovery Protocols.

Implementation of Mitigation Measure CR-2 would reduce potential impacts related to inadvertent discovery of cultural resources to be less than significant.

Impact CR-c: Would the Project disturb any human remains, including those interred outside of formal cemeteries? (Less-than-Significant with Mitigation)

Terrestrial Development

While the cultural resource investigation did not determine archaeological resources were likely to be present (Roscoe and Associates 2020), inadvertent discovery of human remains may still occur. In the event human remains are encountered during construction, Mitigation Measure CR-3 would be implemented to ensure any potential impact would be less than significant.

Mitigation

Mitigation Measure CR-3: Minimize Impacts to Unknown Archaeological Resources or Human Remains if Encountered

If human remains are discovered during Project implementation, all work shall be halted and the Humboldt Bay Harbor, Recreation, and Conservation District (landowner) and tribal representatives shall be contacted immediately. The Humboldt Bay Harbor, Recreation, and Conservation District shall contact the County Coroner immediately and the Coroner would evaluate the find to determine the subsequent course of action, including notification of tribal representatives. In the event of inadvertent discoveries, the Standard Operating Procedures as outlined by Roscoe and Associates (2020) shall be followed, including Standard Operating Procedures for Inadvertent Discovery of Native American Remains and Grave Goods.

Implementation of Mitigation Measure CR-3 would reduce potential impacts related to inadvertent discovery of unknown archaeological resources or human remains to be less than significant.

Level of Significance: Less than Significant with Mitigation Incorporated

Ocean Discharge

The Ocean Discharge component of the Project is located off-shore in the Pacific Ocean. The Project would utilize the existing outfall during the operational phase and would not involve construction activities. Therefore, there is no potential to encounter human remains. No impact would occur.

Mitigation Measures: No mitigation is necessary

Level of Significance: No Impact

Humboldt Bay Water Intakes

While the cultural resource investigation did not determine archaeological resources were likely to be present (Roscoe and Associates 2020, 2021), inadvertent discovery of human remains may still occur. In the event human remains are encountered during construction, Mitigation Measure CR-3 would be implemented to ensure any potential impact would be less than significant.

Mitigation

Mitigation Measure CR-3: Minimize Impacts to Unknown Archaeological Resources or Human Remains if Encountered

See above under Impact CR-c Terrestrial Development for the full text of Mitigation Measure CR-3: Minimize Impacts to Unknown Archaeological Resources or Human Remains if Encountered.

Implementation of Mitigation Measure CR-3 would reduce potential impacts related to inadvertent discovery of unknown archaeological resources or human remains to be less than significant.

Level of Significance: Less than Significant with Mitigation Incorporated

Compensatory Off-Site Restoration

Pile and Spartina removal would occur in a tidal setting where human remains associated with archaeological resources would not be present. Ground disturbance associated with off-site compensatory restoration would not result in disturbance to archaeological resources. However, in the event of inadvertent discovery of human remains, Mitigation Measure CR-3 would be implemented, reducing any potential impact to less than significant with the incorporation of mitigation.

Mitigation

Mitigation Measure CR-3: Minimize Impacts to Unknown Archaeological Resources or Human Remains if Encountered

See above under Impact CR-c Terrestrial Development for the full text of Mitigation Measure CR-3: Minimize Impacts to Unknown Archaeological Resources or Human Remains if Encountered.

Implementation of Mitigation Measure CR-3 would reduce potential impacts related to inadvertent discovery of human remains to be less than significant.

Level of Significance: Less than Significant with Mitigation Incorporated

3.4.7 Cumulative Impacts

Impact CR-C-1: Would the Project contribute to a cumulatively significant impact to cultural resources? (Less than Significant)

As discussed above, record searches and field review visits were undertaken to ensure that cultural resources and human remains that could be inadvertently impacted by Project implementation were identified and mitigation measures are included that would reduce impacts to a less-than-significant level. Projects considered in Table 3-1 would, at minimum, also be required to comply with CEQA and undergo consultation with tribal governments through AB 52. As such, projects considered in Table 3-1 would also complete cultural resources investigations or similar studies, as well as require similar mitigation measures, to ensure cultural impacts would not result from the site-specific footprint of any one project. With implementation of Mitigation Measures CR-1 (Implementation of Protocols for Cultural Monitoring During Ground Disturbance); CR-2 (Implementation of Inadvertent Discovery Protocols); and CR-3 (Minimize Impacts to Unknown Archaeological Resources or Human Remains if Encountered), the Project's contribution to this cumulative impact will not be cumulatively considerable, and therefore less than significant.

Mitigation Measures: No mitigation is necessary

Level of Significance: Less than Significant

3.4.8 References

Roscoe and Associates. 2021. An Archaeological and Historical Resource Investigation Report for the Humboldt Bay Water Intakes Addendum to the Nordic Aquafarms California, LLC, Samoa Peninsula Land-based Aquaculture Project, Humboldt County, California. Prepared for GHD, Eureka, CA.

Roscoe and Associates. 2020. An Archaeological and Historical Resource Investigation Report for the Nordic Aquafarms California, LLC, Samoa Peninsula Land-based Aquaculture Project, Humboldt County, California. Prepared for GHD, Eureka, CA.