CULTURAL RESOURCES SURVEY REPORT FOR THE SAND HILL WIND REPOWERING PROJECT

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AB ACHP APE APWRA CEQA CFR CRHR I- MW NAHC NHPA NRHP NWIC O&M project SLF	Assembly Bill Advisory Council on Historic Preservation area of potential effects Altamont Pass Wind Resource Area California Environmental Quality Act Code of Federal Regulations California Register of Historical Resources Interstate megawatt Native American Heritage Commission National Historic Preservation Act National Register of Historic Places Northwest Information Center operations and maintenance Sand Hill Wind Repowering Project Sacred Land File
project	Sand Hill Wind Repowering Project
SLF	Sacred Land File
SWP	State Water Project

Sand Hill Wind, LLC (Sand Hill) is proposing the Sand Hill Wind Repowering Project (project) in the Altamont Pass Wind Resource Area (APWRA). The project would entail as many as 40 new wind turbines in the 2,700-acre project area. Current specifications call for 5 General Electric (GE) 2.3-116 and 35 GE3.6-137 or GE 3.8-130 turbines, but other turbines of similar capacity and characteristics are being considered. The project would have an installed capacity of up to 144.5 megawatts of electrical energy production, generating electricity for distribution to the electrical grid.

Each turbine would require a small permanent footprint and temporary disturbance to facilitate construction. Removal of existing turbines is not part of the proposed project and has already been completed. Project components that would result in ground disturbance activity are listed below.

- Removal of old wind turbine foundations only when in conflict with new project components.
- Installation of up to 40 new wind turbine generators, towers, foundations, and pad-mounted transformers.
- Development of project roads and installation of a power collection system.
- Use of existing roads to the extent possible.
- Use of existing substations (with upgrades to the equipment).
- Construction of an Operations & Maintenance (O&M) building.
- Installation of three permanent meteorological towers.

In 2014, the Alameda County Community Development Agency published and approved the *Altamont Pass Wind Resource Area Repowering Final Program Environmental Impact Report* (program EIR) (Alameda County Community Development Agency 2014). Project implementation could result in activities that would require permits under Section 404 of the Clean Water Act. If such permits are required, , the United States Army Corps of Engineers (USACE) would serve as the lead federal agency, in which case compliance with Section 106 of the National Historic Preservation Act (NHPA) would also be required. This cultural resources inventory was conducted in support of Section 106 compliance, and the purpose of this investigation is to determine the presence or absence of cultural resources within the project's area of potential effects (APE).

Area of Potential Effects

The project is located in Township 2 South, Range 3 East, Section 1, 11 through 14, 20 through 23, and 28 and Township 2 South, Range 4 East, Section 7, 18, and 19 of the Mount Diablo Base Meridian (Appendices A and B). The project is located on 15 parcels in Alameda County, north of Interstate (I-) 580. The APE includes portions of the following parcels: 99B-7750-6 (101 acres), 99B-6325-1-4 (69 acres), 99B-6325-1-3 (224 acres), 99B-7375-1-7 (314 acres), 99B-7400-1-5 (598 acres), 99B-7300-1-5 (443 acres), 99B-7050-4-6 (73 acres), 99B-7050-1-9 (82 acres), 99B-7050-4-1 (27 acres), 99B-7350-2-1 (2 acres), 99B-7350-2-15 (334 acres), 99B-7350-2-5 (57 acres), 99B-7500-3-2 (53 acres), 99B-7500-3-1 (113 acres), and 99B-7600-1-1 (105 acres).

Many of these parcels are currently used for wind production in the APWRA. Within the APE and surrounding APWRA, land use includes cattle-grazing, wind turbine operation, and ancillary facilities. Primary access to the project is through locked gates off Altamont Pass Road and Mountain House Road. On-site roads are graveled and vary in width from 12 to 20 feet. The landscape is generally characterized by rolling foothills of annual grassland. Terrain is typically steeper in the west, while the eastern portions gradually flatten toward the Central Valley. Elevation ranges from approximately 600 to 1,200 feet above sea level.

The APE consists of both the horizontal and vertical maximum potential extent of direct impacts resulting from the project. The horizontal extent of the APE encompasses all anticipated permanent and temporary impact areas. The vertical APE is the maximum extent of ground disturbance within the horizontal APE (i.e., ground surface to maximum depth of soil disturbance) and varies by project component, depending on the nature of the proposed ground-disturbing activity. In some areas, the vertical APE could exceed 20 feet in depth.

Personnel

Archaeologist J. Tait Elder, MA, RPA, served as the principal investigator, archaeological field director, and report co-author. January Tavel, MHP, architectural historian, was a co-author and performed archaeological field investigations. Kerry Boutte, MA, RPA, performed field investigations and was a report co-author. Lily Arias, MA; Jon Rusch, MA; and Andrea Duomovich, MA performed archaeological field investigations. GIS support was provided by Dan Schiff and Sacha Selim.

Native American Consultation

Formal Section 106 consultation would be performed by USACE as the federal lead agency for the project. ICF conducted outreach to the Native American Heritage Commission (NAHC) and any individuals identified by the NAHC who might provide information regarding any sacred lands within or adjacent to the APE. The results of this outreach is provided in Chapter 3.

Regulatory Background

Federal

National Historic Preservation Act (54 United States Code 300101 et seq.)

The NHPA establishes the federal government policy on historic preservation and the programs, including the National Register of Historic Places (NRHP), through which this policy is implemented. Under the NHPA, significant cultural resources, referred to as historic properties, include any prehistoric or historic district, site, building, structure, object, or landscape included in, or determined eligible for inclusion in, the NRHP. Historic properties also include resources determined to be a National Historic Landmark. National Historic Landmarks are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting United States heritage. A property is considered historically significant if it meets one or more of the NRHP criteria and retains sufficient

historic integrity to convey its significance. This act also established the Advisory Council on Historic Preservation (ACHP), an independent agency that promotes the preservation, enhancement, and productive use of our nation's historic resources, and advises the President and Congress on national historic preservation policy. The ACHP also provides guidance on implementing Section 106 of the NHPA by developing procedures to protect cultural resources included in, or eligible for inclusion in, the NRHP. Regulations are published in 36 Code of Federal Regulations (CFR) Parts 60, 63, 800.

Section 106 of the NHPA (codified as 36 CFR Part 800) requires that effects on historic properties be taken into consideration in any federal undertaking. The process generally has five steps: (1) initiating Section 106 of the NHPA process, (2) identifying historic properties, (3) assessing adverse effects, (4) resolving adverse effects, and (5) implementing stipulations in an agreement document.

Section 106 of the NHPA affords the ACHP and the State Historic Preservation Officer, as well as other consulting parties, a reasonable opportunity to comment on any undertaking that would adversely affect historic properties. State Historic Preservation Officers administer the national historic preservation program at the state level, review NRHP nominations, maintain data on historic properties that have been identified but not yet nominated, and consult with federal agencies during Section 106 review.

The NRHP eligibility criteria (36 CFR Section 60.4) is used to evaluate significance of potential historic properties. The criteria for evaluation are as follows.

- a) [Properties] that are associated with events that have made a significant contribution to the broad patterns of our history; or
- b) [Properties] that are associated with the lives of persons significant to our past; or
- c) [Properties] that embody the distinctive characteristics of a 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) [Properties] that have yielded, or may be likely to yield, information important in prehistory or history.

Properties meeting any of the above criteria are considered eligible for listing in the NRHP if they retain integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

Section 101(d)(6)(A) of the NHPA allows properties of traditional religious and cultural importance to a Native American tribe to be determined eligible for NRHP inclusion. In addition, a broader range of Traditional Cultural Properties are also considered and may be determined eligible for or listed in the NRHP. Traditional Cultural Properties are places associated with the cultural practices or beliefs of a living community that are rooted in that community's history and that may be eligible because of their association with cultural practices or beliefs of living communities that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. In the NRHP programs, "culture" is understood to mean the traditions, beliefs, practices, lifeways, arts, crafts, and social institutions of any community, be it an Indian tribe, a local ethnic group, or the nation as a whole.

State

California Environmental Quality Act (California Public Resources Code Section 21000 et seq.)

California Environmental Quality Act (CEQA) Guidelines Section 15064.5 provides specific guidance for determining the significance of impacts on historic and unique archaeological resources. Under CEQA these resources are called "historical resources" whether they are of historic or prehistoric age. California Public Resources Code Section 21084.1 defines historical resources as those listed, or eligible for listing, in the California Register of Historical Resources (CRHR), or those listed in the historical register of a local jurisdiction (county or city). NRHP-listed "historic properties" located in California are considered historical resources for the purposes of CEQA and are also listed in the CRHR. The CRHR criteria for listing such resources are based on, and are very similar to, the NRHP criteria. California Public Resources Code Section 21083.2 and CEQA Guidelines Section 15064.5(c) provide further definitions and guidance for archaeological sites and their treatment.

Section 15064.5 also prescribes a process and procedures for addressing the existence of, or probable likelihood of, Native American human remains, as well as the unexpected discovery of any human remains within the project. This includes consultations with appropriate Native American tribes.

Guidelines for the implementation of CEQA define procedures, types of activities, persons, and public agencies required to comply with CEQA. Section 15064.5(b) prescribes that project effects that would "cause a substantial adverse change in the significance of an historical resource" are significant effects on the environment. Substantial adverse changes include physical changes to both the historical resource and its immediate surroundings.

Appendix G of the CEQA Guidelines provides an Environmental Checklist of questions that a lead agency should normally address if relevant to a project's environmental impacts. Section 21083.2 defines "unique archaeological resources" as "any archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria.

- Contains information needed to answer important scientific research questions and show that there is a demonstrable public interest in that information.
- Exhibits a special and particular quality, such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

The CEQA lead agency having jurisdiction over a project is responsible for ensuring that resources are protected in compliance with CEQA and other applicable statutes. California Public Resources Code Section 21081.6, entitled Mitigation Monitoring Compliance and Reporting, requires that the CEQA lead agency demonstrate project compliance with mitigation measures developed during the environmental impact review process.

California Register of Historical Resources Sections 5024.1 and 14 California Code of Regulations Section 4850

California Public Resources Code Section 5024.1 establishes the CRHR. The register lists all California properties considered to be significant historical resources. The CRHR also includes all properties listed or determined eligible for listing in the NRHP, including properties evaluated under Section 106. The criteria for listing are similar to those of the NRHP. The CRHR regulations govern the nomination of resources to the CRHR (14 California Code of Regulations Section 4850). The regulations set forth the criteria for eligibility as well as guidelines for assessing historical integrity and resources that have special considerations.

California Public Resources Code Section 5097.98 and 5097.99

Section 5097.98 discusses the procedures that need to be followed upon the discovery of Native American human remains. The Native American Heritage Commission (NAHC), upon notification of the discovery of human remains by the coroner, is required to notify those persons it believes to be most likely descended from the deceased Native American. It enables the descendant to inspect the site of the discovery of the Native American human remains and to recommend to the land owner (or person responsible for the excavation) means of treating, with dignity, the human remains and any associated grave goods. Furthermore, under Section 5097.99, it is a felony to obtain or possess Native American artifacts or human remains taken from a grave or cairn. Section 5097.99 sets penalties for these actions and also mandates that it is the policy of the State of California to repatriate Native American remains and associated grave goods.

California Health and Safety Code Section 7050.5(b)

This code established that any person who knowingly mutilates, disinters, wantonly disturbs, or willfully removes any human remains in or from any location without authority of the law is guilty of a misdemeanor. It further defines procedures for the discovery and treatment of Native American remains.

Assembly Bill 2641

Assembly Bill (AB) 2641 provides procedures for private land owners to follow up on discovering Native American human remains. Land owners are encouraged to consider culturally appropriate measures if they discover Native American human remains as set forth in California Public Resources Code Section 5097.98. AB 2641 further clarifies how the land owner should protect the site both immediately after discovery and into the future.

This chapter summarizes the key attributes of the APE's environmental and cultural setting. This information is used in subsequent chapters to establish a research design – including expectations and field methods.

Environmental Setting

The APE is located along the eastern margin of the Diablo Range of the Coast Ranges geomorphic province (California Geological Survey 2002; U.S. Geological Survey 1977, 1986). The province is characterized by a northwest-trending series of mountain ranges and valleys, is bordered by the Great Valley to the east and the Pacific Ocean to the west, is comprised of uplifted Mesozoic-aged (between 250 and 66 million years old) and Cenozoic-aged (less than 66 million years old) sedimentary rock, and runs subparallel to the San Andreas Fault (California Geological Survey 2002). Much of the APE is situated on a range comprised of uplifted and faulted upper Cretaceous-aged (between 100 and 66 million years old) to Pliocene-aged (between 5 and 2.5 million years old) silt- and sandstone. In a few areas, this range has been dissected by streams and the resulting valleys have infilled with Holocene-aged (less than 12,000 years old) alluvium (Dibblee and Minch 2006a, 2006b). With the exception of a small number of locations within the APE that contain Holocene-aged alluvium, nearly all of the soils within the APE are comprised of residuum - which are soils formed as a result of in-situ decomposition (Welch et al. 1966).

Cultural Setting

This section summarizes the prehistoric, ethnographic, and historical cultural setting of the project vicinity.

Prehistoric Period

The APE is located along the western margin of the Central Valley cultural region of California. Early inhabitants of the Central Valley used the various habitats found throughout the valley, including riparian forest, marsh, alkali basins, oak savanna, and foothill woodland communities. They created a sophisticated material culture and established a trade system involving a wide range of manufactured goods from distant and neighboring regions, and their population and villages prospered in the centuries prior to historic contact (Rosenthal et al. 2007:147, 149). At the time of initial contact with European settlers (between 1773 and 1821), approximately 100,000 people were living in the Central Valley. This represented about one third of the state's native population (Cook 1955, 1976, 1978; Moratto 1984:171). The setting provided below is based on Fredrickson's (1973, 1974) California adaptation of the Willey and Phillips (1958) prehistoric cultural chronology, and divides this chronology into five periods. These periods are analytical constructs and do not necessarily reflect Native American views.

Paleo-Indian (cal 11,550-8500 B.C.)

Because periodic episodes of erosion and deposition during the Holocene have removed or buried large segments of the Late Pleistocene landscape (Rosenthal and Meyer 2004, White 2003), archaeological deposits that would be associated with these landforms have been either destroyed or buried beneath more recent alluvial deposits (Rosenthal and Meyer 2004, Rosenthal et al. 2007:151, White 2003). Basally thinned and fluted projectile points, found at scattered surface locations primarily in the southern portion of the basin, provide the earliest accepted evidence of human occupation in the Central Valley (Rosenthal et al. 2007:151). No such finds have been reported in the project vicinity.

Lower Archaic (cal 8500–5550 B.C.)

As with the Paleo-Indian period, the Lower Archaic is not well represented in the project area. Those Lower Archaic sites that have been identified in the Central Valley are characterized by mostly isolated finds, including stemmed points, chipped stone crescents, and early concave base points, primarily on the ancient shore of Tulare Lake (Fenenga 1992, Wallace and Riddell 1991). No Lower Archaic sites are recorded within the project area or its vicinity.

Middle Archaic (cal 5550–550 B.C.)

During the Middle Archaic period, significant climate changes spurred two distinct settlementsubsistence adaptations in central California. One was centered on the foothills, and the other was on the valley floor (Fredrickson 1984:102–103). Middle Archaic sites appear to have been increasingly sedentary, as indicated by refined and specialized tool assemblages and features, a wide range of non-utilitarian artifacts, abundant trade objects, and plant and animal remains indicative of year-round occupation (Moratto 1984; Ragir 1972, White 2003).

Upper Archaic (cal 550 B.C.-A.D. 1100)

The Upper Archaic period is characterized by another change in climate conditions, but this time to a cooler, wetter, and more stable climate. New technologies were developed during this period, which included new types of bone tools and bone implements, and widespread manufactured goods such as Haliotis ornaments and ceremonial blades (Bennyhoff and Fredrickson 1994, Fredrickson 1974, Moratto 1984). Sites including human remains displaying extended burial postures have been identified along the side streams and axial marshes of San Joaquin and Merced Counties (Rosenthal et al. 2007:156).

Emergent Occupation (cal A.D. 1000 to Historic Period)

The archaeological record for the Emergent/Historic period is more substantial and comprehensive than those of earlier periods in the Central Valley, and the artifact assemblages are the most diverse (Bennyhoff 1977; Fredrickson 1974; Kowta 1988). The Emergent Period is associated with the use of the bow and arrow over the dart and atlatl (Bennyhoff 1994), and increased variation in burial types and furnishings suggests more complex social developments (Atchley 1994, Bennyhoff and Fredrickson 1994).

Ethnographic Period

The project is located on the eastern boundary of the Ohlone traditional land and the western edge of the Northern Valley Yokuts traditional area. Both are briefly described below.

Ohlone (Costanoan)

The territory of the Ohlone people extended along the coast from the Golden Gate in the north to just below Carmel to the south, and as far as 60 miles inland. The territory encompassed a lengthy coastline, as well as several inland valleys (Levy 1978:485–486). The Ohlone were hunter-gatherers and relied heavily on acorns, supplementing their diet with a range of other foodstuffs, such as various seeds (the growth of which was promoted by controlled burning), buckeye, berries, roots, mammals, waterfowl, reptiles, and insects (Levy 1978:491–493). Prior to contact, the Ohlone were politically organized by tribelet, with each having a designated territory. A tribelet was an organizational unit consisting of one or more villages with individuals generally numbering 100 to 250 members (Kroeber 1962). Ohlone villages typically had four types of structures: domed dwellings, sweathouses, oval or round dance structures, and a domed assembly house (Crespi 1927:219; Levy 1978:492).

Northern Valley Yokuts

"Yokuts" is a term applied to a large and diverse number of people inhabiting the San Joaquin Valley and Sierra Nevada foothills of central California. The Northern Valley Yokuts are the historical occupants of the central and northern San Joaquin Valley (Wallace 1978:462). Northern Valley Yokut villages tended to congregate around water sources, and relied heavily on fishing (in particular, salmon fishing). They varied their diet with waterfowl and the harvesting of wild plant food, such as acorns, seeds, and tule root (Wallace 1978:464). Most settlements, or at least the principal ones, were built atop low mounds on or near the banks of large watercourses for protection against spring flooding (Schenck 1926:132; Schenck and Dawson 1929:308; Cook 1960:242, 259, 285). Village populations averaged around 300 people, and villages contained oval or round family houses, a community lodge for dances, and a sweathouse (Wallace 1978:465).

Historic Period

The project is located in the hills adjacent to the Altamont Pass, between the cities of Livermore (to the west, in Alameda County) and Tracy (to the east, in San Joaquin County). Accordingly, the historic cultural setting of the project is associated with the development of those two areas. Throughout the historic period, the development of infrastructure and evolution of the agrarian economy, have been most influential in guiding settlement and land use in this area.

Early Settlement of Livermore Valley and San Joaquin Valley (1769–1850s)

As early as 1769, the Spanish explorer José Francisco Ortega led an expedition through present-day Alameda County. Seven years later, Juan Bautista de Anza and Pedro Font traveled through the region. By 1797, Spain established the Misión del Gloriosísimo Patriarca Señor San José, currently referred to as Mission San Jose, 15 miles northeast of the present-day City of San Jose and approximately 20 miles southwest of the project location (Kyle et al., 2002). Under the direction of Father Fermín Lasuen, Mission San Jose prospered as an agricultural center, grazing sheep and cattle on the land now known as Livermore Valley (Kyle et. al. 2002). However, the mission's success came with a heavy cost to the Ohlone population who inhabited the territory. Many Ohlone were forced to live and work at the mission. Introduced disease, harsh living conditions, and reduced birth rates during this period resulted in a population decline. While the Ohlone number around 10,000 when the mission was established, their population diminished to less than 2,000 by 1832 (Cook 1943a, 1943b).

With Mexico's independence from Spain in 1822, missions in California were secularized and settlement in Alta California was facilitated through land grants. Rancho land grants were granted in order to encourage agriculture and ranching, reward soldiers, and to provide for settlers who did not own property. Of the more than 800 rancho grants made, the majority were granted by the Mexican government. Between 1841 and 1846, ranchos were established in what would become San Joaquin Valley, including Rancho Pescadero, located in San Joaquin County near present-day Tracy, and Rancho Las Positas, located in the eastern portion of what would become Livermore Valley (Kyle et.al. 2002).

In 1848, the United States defeated Mexico in the Mexican-American War, and Mexico surrendered its Alta California land through the Treaty of Guadalupe Hidalgo. That same year, the Gold Rush brought hundreds of immigrants to Alameda County on their way to the gold fields in California. Attracted by the fertile land and mild climate of the East Bay, many chose to stay and start a new life. The area quickly became one of the leading agricultural hubs of California, with crop farming, dairy farming, and livestock grazing serving as the principal industries of the period (Livermore Heritage Guild 2000).

Township Development (1860s–1910s)

Tracy

Tracy owes its early development to the introduction of the Central Pacific Railroad. The Altamont line, which extended south from Sacramento, first traversed Altamont Pass in 1869. While development began in the vicinity with the towns of Lathrop and Ellis, Tracy was founded in 1878 at the junction of the Altamont line and the Central Pacific's San Pablo and Tulare line. By the 1880s, Tracy also served as the hub for the Southern Pacific line from Oakland to Martinez and the Southern Pacific line through Los Banos to Los Angeles (Tracy Historical Society 2004:7).

The first buildings in Tracy were moved 3 miles from Ellis. By 1910, a merger of the Central Pacific and Southern Pacific Railroad resulted in relocation of the Southern Pacific headquarters from Lanthrop to Tracy. While this change didn't result in the physical relocation of buildings, it did spur introduction of new railroad facilities, such as repair shops and switching yards, as well as residential development, and addition of churches, hotels, saloons, stores, and other community amenities. When the town incorporated as a city in 1910, the population had grown to about 2,000 people (Tracy Historical Society 2004:7–9).

Livermore

While the town of Livermore was named for Robert Livermore, one of the early settlers in the region who received the Rancho Las Positas land grant in 1839, it was founded in 1869 by William Mendenhall. The town site was established on a 100-acre portion of Mendenhall's property, and 20 acres was provided to Central Pacific Railroad to support routing the transcontinental railroad through Livermore. The establishment of a Western Pacific Railroad line (an independent branch of the Central Pacific Railroad) caused Livermore to quickly become the economic center of the region (Kyle et al. 2002; Nale 2003). In the Livermore Valley, the economy began to shift from livestock to agriculture during the 1850s. Introduction of railroad transportation spurred this trend by providing farmers a means of conveying their harvested crops to markets in the region (Livermore Heritage Guild 1999).

Altamont

The community of Altamont, where the project is located, was founded in 1868 when the Southern Pacific Railroad was established. Altamont primarily functioned as a railroad turnaround for steam engines. Aside from a small number of buildings, which included the Summit School, Summit Hotel, the Summit Garage, and Altamont Library, Altamont was and remains primarily an agrarian community (Nale 2003).

Late-Nineteenth and Twentieth-Century Growth (1910s-1980s)

The region continued to grow slowly during the late nineteenth and early twentieth century. The surrounding area remained primarily an agricultural community populated with ranches and farms. While early settlers had grazed sheep on the unfenced hills and valleys. As livestock became more varied with introduction of cattle, horses, and mules, fencing enclosures became a common feature on the landscape. Cattle ranches began to dominate around WWI, and between 1910 and 1920 Portuguese immigrants settled in the area, launching what would become a robust dairy industry (Tracy Historical Museum 2017; Tracy Historical Society 2004:19, 32).

Without the benefits of irrigation, early settlers in the region first engaged in dry land farming. While experimentation with plowing depths varying from 2 to 6 inches and use of summer fallowing practices were implemented with some success during this early period, farming flourished when Delta levees and irrigation infrastructure was built. Irrigation in the Tracy area included the Naglee-Burk Track in 1912, West Side Irrigation District in 1918, and Banta-Carona Irrigation District in 1926. Cultivation included row crops and orchards. barley, tomatoes, asparagus, nuts, and fruit, with associated industrial development processing plants (Tracy Historical Society 2004:7–8, 19, 35).

In 1913, transportation was improved with the construction of the Lincoln Highway, which later became known as Highway 50/Altamont Pass Road (William Self Associates 2002:4). The route, located immediately south of the APE's southern boundary, spurred a small degree of development in the immediate vicinity of the APE.

While Tracy's importance as a railroad center declined with the end of the steam era in the 1950s and expanded highway infrastructure, agriculture continued to be an essential industry through the 1950s and the post-WWII era was a period of growth in Livermore Valley. Increased water demands throughout the state spurred planning and development of The California Aqueduct beginning in the 1950s. The structure, designed to redistribute water from the Sacramento-San Joaquin Delta to the southern end of the state at Lake Perris in Riverside County, was 444 miles long with mainline segments located in Alameda and San Joaquin Counties with a portion south of Bethany Reservoir located in the APE. Constructed from 1960–1974, the California Aqueduct was the primary delivery system of the State Water Project (SWP) (Ambacher 2011). As the California Aqueduct's construction was completing, development from the San Francisco Bay sprawled east and cities such as Livermore and Tracy began to see another pulse of development (Tracy Historical Society 2004:8–9).

Wooden windmills, used to provide reliable water supply for individual farms, were common features in the rural historic landscape throughout the late-nineteenth and early-twentieth centuries. It wasn't until the 1980s that wind began to serve power needs at a regional scale. With winds through the Altamont Pass reaching more than 80 miles per hour, the first modern wind turbine was erected in 1982 (Kyle et al. 2002:24). While historic aerial photographs and topographic maps confirm the still largely undeveloped setting of the project area and its immediate vicinity, increased presence of wind turbines and associated infrastructure does accompany cattle ranching uses and increasing suburban development along the I-580 corridor.

Records Search and Literature Findings

On January 3, 2018, ICF staff conducted a cultural resources records search (NWIC record 17-1735) at the Northwest Information Center (NWIC) at Sonoma State University, Rohnert Park. The records search covered the APE and all areas within 0.25 mile of the APE. The purpose was to identify any previously recorded cultural resources in the APE and vicinity. Also included in the search were previous cultural resources studies that have included portions of the APE or areas within 0.25 mile of the APE.

The records search was performed using data from the following sources.

- NRHP
- CRHR
- Directory of Properties in the Historic Property Data File
- Archeological Determinations of Eligibility (April 5, 2012)

The records search resulted in the identification of three previously recorded cultural resources within the project APE (P-01-010613, P-01-010947, and P-01-011395). There were four previously recorded resources (P-01-000163, P-01-011506, P-01-011595, and P-01-011596) within the 0.25mile study radius. Resource P-01-010613 is a previously recorded segment of Grant Line Road, which runs along the route of the original Lincoln Highway, the first paved transcontinental road constructed around 1870. Resource P-01-010947 is the Pittsburg-Tesla 230kV transmission line. It was constructed by PG&E in 1959-1960 and extends for approximately 31 miles across eastern Contra Costa County and northeastern Alameda County. Resource P-01-011395 is a six-mile segment of the PG&E Tracy-Tesla 230kV transmission line built between 1949 and 1953. The resources located within the 0.25-mile study area include an historic-period ranch complex (P-01-000163), a possible boundary marker/fence (P-01-011506), a weathered sandstone milling station (P-01-011595), and a weathered sandstone boulder milling station consisting of 2 conical and 2 oval mortars (P-01-011596). A map of previously recorded cultural resources can be found in Appendix D. In addition to the previously recorded resources, the NWIC lists a total of 11 cultural resources studies that were performed within the project expanded APE, nine of which also extended into the 0.25-mile study radius. An additional 25 cultural resources studies have been recorded within the 0.25-mile study radius.

Additional Literature Search

Additional sources consulted included 7.5-minute series topographic maps (1907, 1914, 1929, 1941, 1969, and 1975) and aerial photographs (1949, 1959, 1979, 1993, and 2010). The historic aerial photographs and topographic maps reviewed did not indicate the presence of historic structures in the immediate vicinity of project components. Historic topographic maps (1914, 1916, 1941, 1943, 1955, and 1966), however, suggests the presence of several roads travelling across the northeast

portion of the project APE. This roadway, however, is not seen on maps after 1966, perhaps due to the construction of the Bethany Reservoir, adjacent to the expanded APE.

Native American Outreach

ICF contacted the NAHC on January 24, 2018, to identify any areas of concern within the APE that may be listed in the NAHC's Sacred Land File (SLF). A follow-up email was submitted a week later (January 29, 2018) to inquire about receipt of the request, which was confirmed by the NAHC on that same day. ICF sent a third email on February 8, 2018, to ask about when the SLF and contact list may be received, but the NAHC has not provided information to date.

Appendix C contains copies of all Native American correspondence.

This Chapter summarizes the expectations for archaeological resource sensitivity as identified during background research for this study, and the methods selected to conduct the survey based on these findings.

Expectations

Analysis of the background information provided in Chapters 2 and 3 revealed the following expectations.

- Review of the geology of the APE revealed that it is primarily located on upper Cretaceous- to Pliocene-aged landforms, with small and spatially limited portions of the APE located on Holocene-aged landforms. Since landforms that predate the Holocene epoch have limited potential to contain buried archaeological resources, the APE is similarly expected to have limited potential to contain buried archaeological resources.
- Review of the prehistoric and ethnographic literature, as well as the literature review, revealed that while the APE vicinity was used by prehistoric peoples, the nature of this land use would primarily have been for the purposes of resource collection. Therefore, the expected range of prehistoric artifact and feature types in the APE would include projectile points and lithic tools, lithic debitage, bedrock mortars, and grinding stones. Considering that the APE is located far from permanent water sources, but that it could have been used for upland resource collection activities, it is expected to have moderate to low potential to contain prehistoric archaeological resources.
- Review of historic literature and maps revealed that, with the exception of the construction of the California Aqueduct, wind turbines, and use of the APE vicinity as cattle range land, limited development has occurred in the APE. Therefore, it is expected that the APE will have limited potential to contain historical archaeological resources. With the exception of the California Aqueduct—which would not be affected by the project—the APE is not expected to contain historic built resources.

Based on an examination of the existing data, the likelihood of encountering buried archaeological resources in the APE is considered to be low. The likelihood of encountering archaeological resources in the APE in general is considered to be moderate to low.

Field Methods

Based on the expectations presented above, pedestrian survey was identified as being the appropriate method for identifying cultural resources within the APE. Between February 19 and 21, 2018, ICF cultural resources staff—J. Tait Elder, January Tavel, Kerry Boutte, Lily Arias, Jon Rusch, and Andrea Duomovich—conducted pedestrian surveys of the APE. When possible, transect spacing of no more than approximately 10 meters was used to provide a high degree of ground coverage. The ground was inspected for indications of human activity such as midden soils, bedrock mortars,

slicks, petroglyphs, lithic artifacts, and modified bone; and historic-era resources such as ceramics and glass, construction debris, and foundations. Whenever possible, the locations of subsurface exposures caused by such factors as rodent activity, off-road vehicle ruts, road cuts, or vegetation disturbances were examined for artifacts or for indications of buried deposits. No subsurface investigations or artifact collection occurred during the pedestrian survey. All three of the resources previously documented in the APE (P-01-010613, P-01-010947, and P-01-011395) were relocated during the pedestrian survey. The portions of these resources that intersect with the APE consist of overhead power transmission lines and actively in-use roadway. While the project will interconnect with the power transmission lines and use the existing roadway, these activities are consistent with their current use and function. Of the four previously documented resources located near the APE, two (P-01-000163 and P-01-011596) were documented as being located directly adjacent to the APE. Pedestrian survey relocated both resources outside of the APE, and they will not be affected by the project. No previously undocumented archaeological resources were identified within the APE during the pedestrian survey. Based on this information, none of the resources identified above were evaluated for NRHP/CRHR Eligibility under Criteria A/1, B/2, C/3, or D/4.

A portion of the California Aqueduct main line does intersect with the APE at two locations south of Bethany Reservoir. Segments of the California Aqueduct have been evaluated for NRHP/CRHR eligibility in other locations, and the full extent of the aqueduct has been determined eligible for listing on the NRHP and CRHR at the state level of significance under NRHP/CRHR Criterion A/1 for representing a comprehensively planned and publicly sanction water conveyance public works project that facilitated development throughout the state and also determined eligible for listing under NRHP/CRHR Criterion C/3 for introducing design innovations to water conveyance infrastructure, does intersect with the APE at two locations south of Bethany Reservoir. Given project activities are not anticipated to disturb this infrastructure, evaluation of the aqueduct was not included in the scope of this survey.

Conclusions

All previously documented cultural resources in the APE (P-01-010613, P-01-010947, and P-01-011395) were relocated within the APE during the pedestrian survey, and none of these resources will be affected by the project. Similarly, while segments of the California Aqueduct intersect with the APE, impacts due to project-related activities are not anticipated. No previously undocumented archaeological resources were identified in the APE. Consequently, no resources were evaluated for NRHP or CRHR eligibility as part of this effort. Therefore, based on the findings of this study, it is anticipated that the potential for encountering previously undocumented archaeological resources during project implementation is low.

Recommendations

Given the cultural resources survey results, this project is not expected to adversely affect any NRHP- or CRHR-eligible resources. Accordingly, a finding of *no adverse effects* on historic properties is recommended. Despite the project area's limited sensitivity for containing as-yet undocumented archaeological resources, should an archaeological resource be encountered during project-related activities, the following inadvertent discovery measures should be employed. Work should be halted in the vicinity of the find, and a qualified archaeologist should be contacted to evaluate the archaeological deposit and to make recommendations about the treatment of the deposit, as warranted.

If any human remains are discovered during project implementation, there should be no further excavation or disturbance of the site, or any nearby area reasonably suspected to overlie adjacent human remains, until the appropriate county coroner has been informed and has determined that no investigation of the cause of death is required. If the remains are of Native American origin, no further excavation or disturbance should take place until the descendants of the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in California Public Resources Code Section 5097.98, or until the NAHC is unable to identify a descendant or the descendant fails to make a recommendation within 24 hours after being notified by the NAHC.

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Figure 1-1 Project Vicinity Map Altamont Pass Wind Resource Area, Sand Hill Wind Repowering Project





Figure 1-2 Project Vicinity Map Altamont Pass Wind Resource Area, Sand Hill Wind Repowering Project



Figure 2 Area of Potential Effects Map Altamont Pass Wind Resource Area, Sand Hill Wind Repowering Project
Appendix C Native American Correspondence

Boutte, Kerry

From: Sent: To: Subject: Attachments: Boutte, Kerry Wednesday, January 24, 2018 11:19 AM 'nahc@nahc.ca.gov' Sand Hill NAHC request project area map.pdf; NAHC Request.pdf

Hello,

Attached are a request for a Tribal Consultation List and Sacred Lands File search, as well as an area map. Please contact me at the information below if there are any questions.

Thank you and kindest regards, Kerry

Kerry Boutte | Archaeologist | 201 Mission Street, Suite 1500 San Francisco, CA 94105 +1.415.677.7183 | kerry.boutte@icf.com | icf.com Connect with us on social media.

Local Government Tribal Consultation List Request

Native	American	Heritage	Commission
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1550 Harbor Blvd, Suite 100 West Sacramento, CA 95691 916-373-3710 916-373-5471 - Fax nahc@nahc.ca.gov

Type of List Requested
CEQA Tribal Consultation List (AB 52) – Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2
General Plan (SB 18) - Per Government Code § 65352.3.
Local Action Type:
General Plan General Plan Element General Plan Amendment
Specific Plan Specific Plan Amendment Pre-planning Outreach Activity
Required Information
Sand Hill Wind Repowering Project Project Title:
Alameda County Community Development Agency /Sand Hill, LLC
Contact Person:
Street Address:
City: Zip:
Phone:
kerry.boutte@icf.com Email:
Specific Area Subject to Proposed Action
County: City/Community:
Project Description:
The project objective is to repower the existing wind project on land owned by private property owners and develop a 144.5 MW commercially viable wind energy facility that would deliver renewable energy to the electrical grid.
The proposed project features are:
• A total nameplate generation capacity of up to 144.5 MW.
• Removal of old wind turbine foundations only when in conflict with new project
Sacred Lands File Search - Required Information:

Clifton Court Forebay 7.5-minute series; Midway 7.5-minute series; Alameda 7.5-rr

Township: 2S





Sand Hill Wind Project Cultural Record Search



Boutte, Kerry

From:Boutte, KerrySent:Thursday, February 08, 2018 11:45 AMTo:'NAHC@NAHC'Subject:RE: Sand Hill NAHC request

Thank you, but I checked those folders prior to sending the below email. We have received no results.

From: NAHC@NAHC [mailto:NAHC@nahc.ca.gov] Sent: Thursday, February 08, 2018 11:37 AM To: Boutte, Kerry <Kerry.Boutte@icf.com> Subject: RE: Sand Hill NAHC request

Greetings,

Our records indicate this request was processed on February 2, 2018. Please check your Spam or Trash folder and look for our "no-reply" e-mail. If you are still unable to locate our response, please let us know.

Regards,

Native American Heritage Commission 1550 Harbor Blvd., Ste.100 West Sacramento, CA 95691 (916) 373-3710

From: Boutte, Kerry [mailto:Kerry.Boutte@icf.com]
Sent: Thursday, February 8, 2018 8:45 AM
To: NAHC@NAHC <<u>NAHC@nahc.ca.gov</u>>
Subject: RE: Sand Hill NAHC request

Hello

Thank you for the confirmation. We submitted this request on January 24th (two weeks from yesterday). Is there a revised date for which we may receive the results?

Thanks! Kerry

From: NAHC@NAHC [mailto:NAHC@nahc.ca.gov]
Sent: Monday, January 29, 2018 1:36 PM
To: Boutte, Kerry <<u>Kerry.Boutte@icf.com</u>>
Subject: RE: Sand Hill NAHC request

Greetings,

Yes, we received this request.

Regards,

Native American Heritage Commission 1550 Harbor Blvd., Ste.100 West Sacramento, CA 95691 (916) 373-3710

From: Boutte, Kerry [mailto:Kerry.Boutte@icf.com]
Sent: Monday, January 29, 2018 12:56 PM
To: NAHC@NAHC <<u>NAHC@nahc.ca.gov</u>>
Subject: FW: Sand Hill NAHC request

Good afternoon

I would like to confirm receipt of the attached, submitted last week.

Thank you, and kindest regards Kerry

From: Boutte, Kerry
Sent: Wednesday, January 24, 2018 11:19 AM
To: 'nahc@nahc.ca.gov' <<u>nahc@nahc.ca.gov</u>>
Subject: Sand Hill NAHC request

Hello,

Attached are a request for a Tribal Consultation List and Sacred Lands File search, as well as an area map. Please contact me at the information below if there are any questions.

Thank you and kindest regards, Kerry

Kerry Boutte | Archaeologist | 201 Mission Street, Suite 1500 San Francisco, CA 94105 +1.415.677.7183 | kerry.boutte@icf.com | icf.com Connect with us on social media.

Appendix D Previously Recorded Cultural Resources



