

## **4.9 CULTURAL RESOURCES**

This section provides background setting information for cultural resources, including archaeological and historic architectural resources. This section also includes a description of the known cultural resources in the project area and on the project site, as well as a summary of the project area's cultural history, and the regulatory environment governing protection of cultural resources. Resources for this section include archival research and cultural resources inventories conducted on site.

### **4.9.1 ENVIRONMENTAL SETTING**

#### **4.9.1.1 Regulatory Framework**

##### **NATIONAL HISTORIC PRESERVATION ACT (NHPA)**

The National Historic Preservation Act of 1966 (NHPA) (16 U.S.C. § 470(f)) requires Federal agencies to take into account the effects of their undertakings on historic properties that are listed in or determined eligible for inclusion in the National Register of Historic Places (NRHP), and requires Federal agencies to consult with the State Office of Historic Preservation, Tribal Historic Preservation Officers (THPO), and other parties to develop and evaluate alternatives or modifications to the undertaking that could avoid, minimize, or mitigate adverse effects on historic properties. The Advisory Council on Historic Preservation (ACHP) is afforded a reasonable opportunity to comment on such undertakings. Archaeological sites are protected under the NHPA in a similar fashion when a project involves excavation of any kind.

The NRHP is the nation's official list of cultural resources worthy of preservation. Authorized under the NHPA, the NRHP is part of a national program to identify, evaluate, and protect our historic and archaeological resources. The NRHP is administered by the National Park Service, which is part of the U.S. Department of Interior.

In accordance with the NHPA (particularly Section 106), direct and indirect impacts from proposed actions on historic, architectural, archaeological, and other cultural resources must be considered. Per the NHPA, the Federal Aviation Administration (FAA) has consulted with the California SHPO and local tribal representatives (see correspondence in Appendix H). To date, the Federated Indians of Graton Rancheria are the only tribe to provide comments on the project and participate in government-to-government meetings. A literature search and field investigation was conducted to identify historic, architectural, archaeological, or cultural resources within the Area of Potential Effect (APE), including resources and plants identified as culturally significant by the Federated Indians of Graton Rancheria.

In addition, surveys of historic, architectural, archaeological, and cultural resources were prepared for this project (see Appendix H, *Cultural Resources*) in order to gather information to assist in the identification of NRHP-listed, determined NRHP-eligible, potentially NRHP-eligible, and National Historic Landmarks potentially affected by the Sponsor's Proposed Project or its alternatives at Gness Field Airport (DVO or Airport).

The FAA submitted a Determination of No Effect for the Sponsor's Proposed Project to the California State Office of Historic Preservation on June 23, 2011. The California State Office of Historic Preservation did not comment on this determination within 30 days of receipt so the FAA contacted the California State Office of Historic Preservation on September 26, 2011. The California State Office of Historic Preservation confirmed that it did not object to the FAA's Determination of No Effect and that the consultation requirements of the National Historic Preservation Act, Section 106, and 36 CFR 800 *Protection of Historic Properties*, had been met. The FAA reconfirmed this determination with the State Office of Historic Preservation by letter of October 6, 2011 (Appendix H).

### **CALIFORNIA REGISTER OF HISTORIC RESOURCES (CRHR)**

The California Register of Historic Resources (CRHR) is an authoritative guide to the state's historical resources, and by which properties are considered significant for California environmental Quality Act (CEQA) purposes. The CRHR includes resources listed in or formally determined eligible for listing in the NRHP, California state landmarks, and points of historical interest. The State Office of Historic Preservation maintains a list of historic resources by county. Properties of local significance that have been designated under a local preservation ordinance (i.e., local landmarks), or that have been identified in a local historical resources inventory may also be eligible for listing in the CRHR and are presumed to be significant resources for purposes of CEQA.

### **MARIN COUNTYWIDE PLAN UPDATE 2007, HISTORIC AND ARCHAEOLOGICAL RESOURCES POLICIES**

The Marin Countywide Plan is the County's long range guide for use of land and protection of natural resources. Countywide Plan goals related to historic and archaeological resources are discussed in the Section 4.2, Land Use and Planning. The Countywide Plan identifies no cultural resources on the project site.

#### **4.9.1.2 Existing Conditions**

##### **PREHISTORIC SETTING**

The prehistory of the San Francisco Bay Area has been studied extensively over the last century. The following summarizes the prehistoric setting as it relates to the area and the site.

### Paleo-Indian Period

During the late Pleistocene and early Holocene (12,000 to 8,000 B.P.), humans first occupied the Bay Area, Central Valley, and Coast Range regions of California. However, the archaeological record for early peoples is sparse. Early sites within the Bay Area and Central Valley are often deeply buried under accumulated gravels and silts. Few of these buried sites have been excavated beyond a couple of meters in depth (Moratto 1984; Meyer and Rosenthal 1997). The development of prehistoric chronology in central California has emphasized the latter half of the Holocene (i.e., the last 5,000 years) for which the archaeological record is more abundantly documented (cf., papers in Hughes 1994; Milliken et al. 2007; Moratto 1984: Chapters 5 and 6; Rosenthal et al. 2007).

Early Holocene components have been identified in several sites in the San Francisco Bay area suggesting existence of a Paleo-Coastal Tradition in West-Central California (Fredrickson 1973; Jones and Klar 2007; Moratto 1984). Flaked stone tools associated with the early part of the Paleo-Indian Period (i.e., 12,000-10,000 B.P.) have been found in northern California (Moratto 1984; Rondeau et al. 2007). They include Clovis-like large fluted points that likely were hafted and used as spear points. These large fluted points in northern California tend to be found as isolated artifacts. Elsewhere in western North America, they occur in association with the remains of extinct animals such as mammoths and bison. This association has led archaeologists to suggest that these early peoples emphasized hunting large game mammals. Paleo-Indian peoples appear to have formed relatively small groups, were highly mobile and settled around wetlands (e.g., lakes and rivers) where large game were also likely to congregate.

### Lower Archaic Period

Like the previous period, the Lower Archaic (8,000-5,000 B.P.) is poorly understood. Few sites have been found because archaeological remains from this time period are largely buried or redeposited. In Central California, Meyer and Rosenthal (1997) discovered a buried component in the Kellogg Creek drainage, at the foot of Mount Diablo, 12 to 14 feet below surface. It contained a sparse, diverse cultural assemblage, including traces of freshwater mussel, low to moderate densities of faunal material (primarily artiodactyls and small mammals), handstones, milling slabs, large cobble-core tools, and large projectile points and biface fragments (including large wide-stem variants of Napa obsidian). This assemblage suggests long-term, periodic use of the eastern flanks of the Central Valley. Macrofloral remains (acorn and cucumber) indicate short-term seasonal use, probably associated with a highly mobile adaptation. In the same area, the Marsh Creek site also has a Lower Archaic component, along with several other Central California sites (Meyer and Rosenthal 2009). Tremaine (2008) encountered a site dating from this period in downtown Sacramento, present from 10 to 20 feet (3-6 meters) below the surface.

### Middle Archaic Period

It has been argued that during the Middle Archaic Period (5,000-2,200 B.P.) hunting was emphasized, inferred from relative proportions of tools associated with hunting, fishing, and gathering (Heizer 1949). Artifacts characteristic of this period include distinctive shell ornaments and charmstones, large projectile points with concave bases and stemmed points, baked clay balls (used for cooking) and milling tools. Net weights, bone fish hooks, and bone spear tips provide evidence for fishing (Bennyhoff 1950; Gifford 1940; Ragir 1972). Burials from this period, in the Sacramento – San Joaquin Delta Region, tend to be extended, oriented towards the west, and often contain grave goods such as baked clay balls, charmstones, shell beads, and exotic minerals. More recent interpretations of the Middle Archaic note plant resources also were of relatively critical importance, along with freshwater fish (cf., Papers in Corey 2009; Milliken et al. 2007; Rosenthal et al. 2007; Schulz 1981).

### Upper Archaic Period

Sites associated with the Upper Archaic Period (2,200-1,000 B.P.), contain substantial midden deposits with shell, mammal and fish bone, charcoal, milling tools, and other artifacts. The number of mortars and pestles increases during this time, suggesting a greater reliance on acorn and seeds. A greater density of obsidian artifacts and shell beads are present in the site assemblages of this time period suggesting a greater complexity of exchange networks and social stratification (cf., papers in Hughes 1994; Milliken et al. 2007; Rosenthal et al 2007). Burials are more often flexed, as opposed to extended, with varied orientations and notably fewer grave offerings, generally involving limited numbers of utilitarian items or ornamental objects (Fredrickson 1974b).

### Emergent Period

The Emergent Period dates between 1,000 B.P. and the arrival of the Spanish in central California (i.e., 1770s). This period involves a dramatic change in general economy characterized by large village sites situated on high ground, increased evidence of acorn harvesting and processing (Basgall 1987), introduction and use of the bow and arrow indicated by small projectile points, and use of clamshell disc beads as the primary medium of monetized exchange (cf., papers in Hughes 1994; Milliken et al. 2007; Rosenthal et al. 2007). During the latter part of the period (i.e., within the last 500 years), cremation became a common mortuary practice. Associated grave goods were often burned as well. Sites from the latter portion of this period sometimes contain items of Euro-American manufacture, such as glass trade beads or worked bottle glass. In northeastern Marin County, the Upper Archaic and Emergent Periods are characterized by development of a primary settlement pattern characterized by primary villages with associated satellite sites (cf., Goerke and Cowan 1983; Moratto 1984; Slaymaker 1977, 1982. These site clusters occur along primary drainages (i.e., Miller, Novato, and San Antonio Creek) or at the interface between upland areas and tidal marshes.

## **ETHNOGRAPHIC CONTEXT**

### Coast Miwok

The project area is located within territory ethnohistorically inhabited by the Coast Miwok (Barrett 1908:303-314; Collier and Thalman 1996; Kelly 1978; Kroeber 1925:272-278; Loeb 1932:113-118). The Coast Miwok territory was in Marin and southern Sonoma counties. The Coast Miwok language is assigned to the Western Division of the Miwokan Subfamily of the Utian Family of the Penutian Stock (Golla 2007; Moratto 1984; Shipley 1978). Two distinct dialect groups characterized the Coast Miwok. One was centered on Bodega Bay. The other was spoken in what is now Marin County.

Coast Miwok subsistence incorporated a variety of maritime and terrestrial resources. The territory of the Coast Miwok included estuaries, open coastline, prairies, low hills, and higher peaks. Winter and early spring posed potential food shortages with stored acorns, seeds, and kelp providing the staples.

Winter and spring salmon runs supplemented winter staples. Surffish were caught with a dip net while a seine strung between two tule balsa canoes was used to obtain fish from San Francisco Bay. Fish were stunned and caught with a fish poison made from wild cucumber. Mussels and clams provided another staple. Coots, geese, ducks, and other waterfowl were primarily available during fall-winter-spring. Potential large game included tule elk, deer, and pronghorn, along with marine mammals such as sea otters, seals, and sea lions. Various carnivores, lagomorphs, and rodents also were utilized.

Several species of oak acorns were gathered and eaten with those of the tan oak preferred. Acorns were hulled, ground into a mush with mortar and pestle, and water leached to remove tannins before cooking. Boulders sometimes were used for bedrock mortars. Buckeye nuts were also eaten after leaching to remove poisonous substances. Other plant foods included greens, geophytes, grass and forb seeds, and berries and fruits, all of which were harvested in season.

Coast Miwok living along San Francisco Bay constructed houses from willow or driftwood poles, leaned into a conical skeletal structure. Horizontal willow poles were tied to the uprights to provide additional structural integrity. The house was clad in tule by tying the vegetation to the frame with lupine cordage. A smoke hole provided ventilation but was covered in animal skin when it rained. The central hearth was dug slightly below grade, and covered in stones. Large villages had a sweathouse, excavated below grade and covered in planks. The sweathouse was a men's social center. Large villages also had dance houses constructed along the same plan as the male sweathouse where secret societies held rituals which were part of the Kuksu Religion.

A strong sense of property and ownership typified the Coast Miwok. Coast Miwok villages controlled discrete territories and excised tolls from outsiders. Land surrounding villages was not regarded as property, however, use rights were attached to resource patches and fishing and hunting localities.

Many social interactions involved various types of transactions. For example, transportation and disposal of a slain bear's head, permission to hunt or fish on owned tracts, acquisition of songs and ritual amulets, curing of all kinds, and initiation into secret societies were all monetary transactions. Clam shell disk beads manufactured from *Saxidomus* sp. were used as money. Abalone shells provided prized material for ornaments which were not part of the monetary system.

Coast Miwok language suggests a moiety organization existed. Personal names included the term for either "land" or "water," but individuals changed their names freely, and siblings often did not share the same land/water affiliation. Kinship patterns and residential location do not appear to have been affected significantly. Therefore, moiety organization probably was vestigial.

The closest known Coast Miwok village, *Olompali*, was within the area immediately adjacent to the Gness Field Airport (DVO or Airport). Kelly (1978:415, Figure 1; see also Barrett 1908:303-314, Map 1; and Maps 1 and 2; Collier and Thalman 1996:4-15 for Coast Miwok place names) notes two other villages were located within an approximate three-mile radius of the area. These included: *Wotoki* (27), located approximately three miles to the north along the Petaluma River; and *Cóikéice* (31), situated approximately three miles to the southwest, south of Novato. Other villages were present in the vicinity of the current location of Petaluma, along the upper part of San Antonio Creek, and in the vicinity of Novato-Nicasio-Ignacio.

#### Prehistoric Olompali

The prehistoric/ethnohistoric Coast Miwok village of Olompali, CA-MRN-193/H, now designated Olompali State Historic Park, is situated on the west side of U.S. Highway 101 approximately one-half mile (800 m) northwest from the north end of the DVO runway (Arrigoni 1990:208-211; Mason 1971:104-111; Munro-Fraser 1880). The village appears to have been given its name from the Coast or Lake Miwok word meaning "southerners", this from the stem "olom" meaning south (Parkman et al 1981). European and Coast Miwok interaction(s) possibly first occurred in 1579 with the visit of Francis Drake and his crew to Marin County during their round-the-world voyage. Treganza (1958) excavated a trench through the middle of CA-MRN-193/H, searching for evidence of Sir Francis Drake's 1579 voyage to the San Francisco Bay Area. He found no artifacts associated with the early period of European contact.

Subsequent archaeological excavations conducted at Olompali recovered many artifacts temporally placing the village within the Upper Emergent Period, c. A.D. 1500-1800. (Parkman 2007; Slaymaker 1976). A diagnostic attribute of the Upper Emergent Period is the appearance and use of clamshell disc money and further growth of trade, with more goods moving farther. Among diagnostic artifacts recovered from CA-MRN-193/H (Olompali) are clamshell disc beads, steatite disc beads, plummet-shaped charmstones, small serrated corner-notched projectile points, and flat-bottomed, thin walled mortars.

Also, unearthed were remains of several structures, one of which was identified as a ceremonial dance house (Slaymaker 1976). In central California, ceremonial dance houses typically occur in larger villages.

While excavating the Olompali dance house, a silver sixpence coin dated 1567 minted in the Tower of London was found (Slaymaker 1976). The coin was on the dance house floor near a hearth which was radiocarbon-dated to about A.D. 1600. Two Elizabethan glass paste beads, commonly used as trade goods by the English during this period, also were observed (Parkman 2007).

## **HISTORIC CONTEXT**

Historic exploration of the San Francisco Bay Area, including Marin County, begins with Gaspar de Portolá's exploration of the Bay Area in 1769 (Beck and Haase 1974). Portolá's expedition provided an incomplete impression of the Bay geography, thus prompting another expedition. In 1770, Pedro Fages found a land route from Monterey to San Francisco in 1770. After sighting the mouth of the Bay (later named the Golden Gate by John C. Frémont) Fages returned to Monterey. During 1776, Juan Bautista de Anza started the first permanent European settlement in the region, by leading an expedition that constructed the *Presidio de San Francisco* and the Mission *San Francisco de Assisi*.

### Early Spanish-Mexican Exploration and Settlement of Marin County

Marin County is one of the original 27 counties of California (Hoover et. al. 2002). The name most likely is a transformation of the Spanish name for San Rafael Bay *La Bahía de Nuestra Señora Rosario de la Marinera* (Bay of Our Lady of the Mariner's Rosary). An alternative place name story is that the county is named for Chief Marin, a Native American who harassed and attacked the Spanish settlers during the early years of the nineteenth century. During 1810 and 1812-1814, Gabriel Moraga led several Spanish expeditions to the Marin-Sonoma area which probably passed through the area near the Airport (Beck and Haase 1974:17-18). In 1817, Chief Marin was captured by the Spanish, but escaped, and continued his campaign against the settlers for another nine years (Hoover et. al. 2002). Mission San Rafael Arcangel was established in December 1817 (Beck and Haase 1974:18-19). During 1821, the Luis Arguello-Father Blas Ordaz party journeyed through the area on their circuit through northwestern California. They were followed in 1823 by Alferez Sanchez and Father Jose Altimira, who decided upon establishing the final mission at Sonoma. After mission secularization in 1834, 20 Mexican land grants were made in Marin County, beginning in 1838 (Beck and Haase 1974:28-29. Several were located within the Novato area.

### Local Northeast Marin History

#### **Novato**

Novato's history is profiled by Arrigoni (1990:194-205), Fitcher (1981:149-151), Mason (1975:154-165), and Munro-Fraser (1880:290-295). In 1839, the Mexican government granted Rancho Novato to Fernando Feliz (Hoover et. al. 2002).

The rancho extended along San Francisco Bay from Black Point to Rancho San José (Beck and Haase 1975). Among other land grants in the Novato area were Rancho San Jose (1840), Corte Madera do Novato (1840), Rancho Olompali (1843), and Rancho Nicasio (1844). These were occupied by the grantees, who built abode homes, raised cattle, and planted crops. With the advent of the American Period in 1846-1848, and California's admission as a state in 1850, settlement of northeast Marin County proceeded. Beginning in the 1850s, the Novato area became the locus of large-scale fruit-growing, especially apples. Fruit and other local produce were shipped by barge to San Francisco where it found a ready market. A town began to grow, centered on Novato Creek. The oldest extant building in Novato was built circa 1850 and later housed the Novato Post Office, headed by Henry F. Jones (Hoover et. al. 2002).

Joseph B. Sweetster and Francis De Long contributed to the early development and economic prosperity of the town by planting orchards and vineyards, growing produce that was shipped to San Francisco from the landing at Novato Creek. Sweetster sold his share of the ranch to DeLong in 1879. Upon his death, De Long transferred his interest in the ranch to his son. In 1888 The Home and Farm Company purchased the 6,000-acre ranch and subdivided the land into small lots for residential and business development.

During 1879, the Northwestern Pacific Railroad reached northeastern Marin County (Stindt 1964). This connected Novato with the rest of eastern Marin County and Sonoma County. The area around the Novato station became the core area of "New Town," while the older area along Novato Creek became "Old Town." During the 1880s fruit growing was joined by poultry raising, vegetable farming, and dairying in northeastern Marin. These agricultural activities increasingly occurred on reclaimed marshlands.

With its saloons, wooden sidewalks and horse troughs, Novato's frontier image persisted into the early twentieth century. However, modernization proceeded rapidly with the advent of the first automobile and telephone exchange (1908), organization of a community council and building of a community center (1919-1923), the advent of what became U.S. Highway 101 (mid-1920s), the first Novato Harvest Festival (1925), and a fire district (1926). During the 1930s Depression, many fruit and poultry farmers in northeast Marin went out of business, and Novato went into an economic decline. This was partially mitigated with construction of Hamilton Field in 1933-1935 which provided a new source of jobs. Completion of the Golden Gate Bridge in 1937 began Marin County's role as a "bedroom community" for San Francisco.

During World War II, rising taxes and labor costs impacted many farmers, who began selling their land to developers. In 1947-1948, U.S. Highway 101 was upgraded to a four-lane expressway through Novato. During 1948, Novato became part of the North Marin Water District. The explosive growth of largely unregulated uncontrolled tract housing in the late 1940s-1950s led to an increased demand for more formal community organization. On January 12, 1960, Novato voted

overwhelmingly to incorporate as a city. Since 1960, Novato has continued to grow in a more orderly, planned manner. During the 1970s, the U.S. 101 Expressway through Novato was upgraded to freeway status.

### ***Historic Olompali***

Milliken (1995:249) comments that the Olompali also were known as the Choquinicos, the tribal name which their captain was baptized as in 1817 at Mission San Jose. The exact territory occupied by the Olompali is a subject of debate. In 1819, Father Payeras visited San Antonio Creek and named it the *Canada de los Olompalis*. Barrett (1908:310) and Kroeber (1925:273-274) regarded San Antonio Creek as the Olompali core area. Slaymaker (1982) placed the Olompali farther east within the current Olompali State Park. However, this area may have been a border zone between Olompali territory and that of the Omiomis of Novato (Milliken 1995:228, Map 4). Milliken notes 83 Olompali went to Mission San Francisco from 1814 to 1819. During 1816-1817, an additional 120 came to Mission San Jose.

Other early mission records indicate a larger Native American population may have lived at Olompali. Records from three missions: San Francisco de Asís (1776); San José de Guadalupe (1797); and San Rafael Arcángel (1817) suggest over 250 baptisms were performed on people from Olompali. Olompali baptism numbers include (Parkman et al 1981):

- Missions San Francisco de Asís recorded 23 baptisms (1814-1816).
- Missions San José de Guadalupe recorded 226 baptisms (1816-1818).
- Missions San Rafael Arcángel recorded 10 baptisms (1817-1822).

After the Sonoma Mission was established in 1823, regular trade was conducted along the El Camino Real which passed through the Olompali Rancheria. It was during this time that the first adobe was constructed, probably by neophytes from the San Rafael Mission.

Following mission secularization in 1834, Camillo Ynitia emerged as the young "Christianized" leader of Olompali. He was the last headman of the village, and was given official title to the Rancho Olompali Land Grant (roughly two leagues of land) in 1843. He was the only Northern California Indian to later have his grant subsequently confirmed and patented by the U.S. Government (Parkman et al 1981).

During the Bear Flag Rebellion on June 24, 1846, a brief skirmish, "The Battle of Olompali", took place at the village, where a Mexican force gathered at Camillo's adobe. Captain John Fremont's American troops, under the command of Lieutenant Henry L. Ford, confronted Juan Padilla's Californios, under the command of Captain Joaquin de la Torre. The Californios were having breakfast at the adobe which was unknown to the Americans as they made an attempt to raid the corral for horses. In the ensuing fight, at least one of the Californios died, making this the only action of the Bear Flag Revolt to produce casualties (Hoover et al 2002).

Camillo sold the majority of his land to Marin County Assessor, James Black, in 1852 for \$5,200. He retained a small parcel known as Apalacochoa. According to Dr. Robert Thomas, Camillo's great-great grandson, the Ynitia family lived in the adobe until 1856 when Camillo was killed outside his door (Parkman et al 1981).

In 1852, James Black bought the majority of Camillo Ynitia's Rancho Olompali Grant for \$5,200 (Arrigoni 1990:208-211; Mason 1971:104-111; Parkman 1981). Originally from Scotland, Black was previously married, and had a daughter, Mary. He made a fortune during the Gold Rush, and was elected Marin County Tax Assessor in 1852. When Mary Black married Galen Burdell in 1863, her father gave her Olompali Ranch as her wedding present. During the late nineteenth and early twentieth centuries, the original Olompali adobe was progressively expanded into the Burdell Mansion. The property stayed in the Burdell family until 1943 when it was sold to Court Harrington.

Harrington subsequently sold the property to the University of San Francisco who used it as a Jesuit retreat. In the 1960s the University of San Francisco tried to sell the property many times. However, each time buyers defaulted, and the land reverted back to the university. In 1967, Don McCoy leased the property and founded a commune referred to as "The Chosen." During this time he hosted musical artists from San Francisco, including Grace Slick, Janis Joplin, and The Grateful Dead. The Grateful Dead recorded at least one album "Aoxomoxoa" at Olompali, and the photo for the back of their album cover was taken there, showing band and commune members (Parkman 2007). In 1969, after the drowning death of two children and a fire, which gutted the Burdell Mansion, the commune members had to vacate the property. The Camillo Ynitia Adobe was added to the National Register of Historic Places in 1973. During the early 1970s, the barns at Olompali were leased as stables to a riding club. In 1977, Olompali was purchased by the State of California and eventually made into a State Historic Park.

### **Gnoss Field Airport (DVO)**

Use of what became know as Gnoss Field Airport dates to 1939 (Arrigoni 1990:206-207; Mason 1975:170-171). In that year, William Wright, who owned the property, built a landing strip for his small plane. In 1945-1946, after trying to sell his Airport to Marin County for \$1,000 an acre, Wright leased the field to Woody Binford. During 1947, teamed with Jack Lewis, Binford built a 3,000-foot dirt runway, two hangers, and an office, and opened a flying school. It operated until 1949, when a change in flight school training regulations ended its existence. In 1950, operation of the field passed to Harry Tollefson, who ran the field's facilities until the late 1960s.

During the late 1950s and early 1960s, the Marin County board of supervisors considered several sites for a county airport before finally deciding upon the Novato facility. In 1968 the county, aided by federal funding, bought the field along with additional land. It was named for William Gnoss, the highly popular North Marin supervisor who had worked for many years to expand aviation in Marin. During 1968, a 3,300-foot runway, 60 feet-wide, was asphalt-paved, and a facilities complex built at the south end of the field. The field soon was home for 1,200 plus

small aircraft, and witnessed approximately 125,000 take offs and landings per year. Additional plans for construction of a control tower and an additional runway have not been realized.

## **AREA OF POTENTIAL EFFECT**

The Area of Potential Effect (APE) is an area or areas where potential effects from a project may have impacts to cultural resources. It is established to define the boundaries for the search for cultural resources. The project site is situated about 200-500 meters east from the present U.S. Highway 101 corridor. The Northwestern Pacific Railroad right-of-way passes tangentially to the northwest corner of the Proposed Project site. **Exhibit 4.9-1, Areas of Potential Effect**, shows the Direct APE (areas where construction activity may have a direct impact), divided into two portions; one at the north end of the existing runway and another at the south end, amounting to just over 39 acres (28.24 acres for the northern portion and 11.04 acres for the southern portion). The anticipated depth of disturbance within the 39 acre area is 3 feet.<sup>1</sup> A larger area of indirect effect, such as noise or visual impacts (the Indirect APE), is also shown, extending one mile beyond the Airport boundaries (approximately 12,655 acres). These APEs are different than the General Study Area and Detailed Study Area discussed in other sections. There are two main reasons that these difference exist. The first is that the act of surveying the Direct APE, particularly through subsurface testing, has the potential to disturb or destroy cultural resources. As a result, it was deemed more appropriate to focus the surveys to those areas where direct impacts could occur. Second, the Federated Indians of Graton Rancheria (FIGR) representatives were given the opportunity to review the draft Direct and Indirect APEs during the initial coordination process. Suggested modifications by the FIGR representative to the Draft Indirect APE were incorporated, which included enlarging the area in some locations and decreasing the area in other locations.

The State of California Native American Heritage Commission (NAHC) was also contacted with a request for a query of the Sacred Lands File and a list of Native American contacts (see Appendix H). The NAHC indicated that a records search of the Sacred Lands File revealed that no Native American Cultural Resources have been recorded within the Direct or Indirect APEs. Additional research on the California Office of Historic Preservation (COHP) database of historic resources found no previously recorded historic, architectural, or archaeological sites within the Direct APE that are listed or eligible for listing on the California or National Register of Historic Places (NRHP).<sup>2</sup>

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<sup>1</sup> Email from Federal Aviation Administration, Doug Pomeroy to California Office of Historic Preservation, July 25, 2011.

<sup>2</sup> California Office of Historic Preservation, On-line at: <http://ohp.parks.ca.gov/> Retrieved October 20, 2009.

## **ARCHAEOLOGICAL RESOURCES**

### Research

On February 8, 2008, and April 14, 2008, Lisa Hagel, Northwest Information Center, Rohnert Park, California, conducted record searches of previously conducted cultural resources studies and previously recorded cultural resources located within the Gness Field Direct and Indirect APEs. (File # 07-1121, File # 07-1448; see Appendix H, Historic Resources for results of the records searches). In addition to the cultural resources reports and site records that were consulted, the records searches included examination of the following sources:

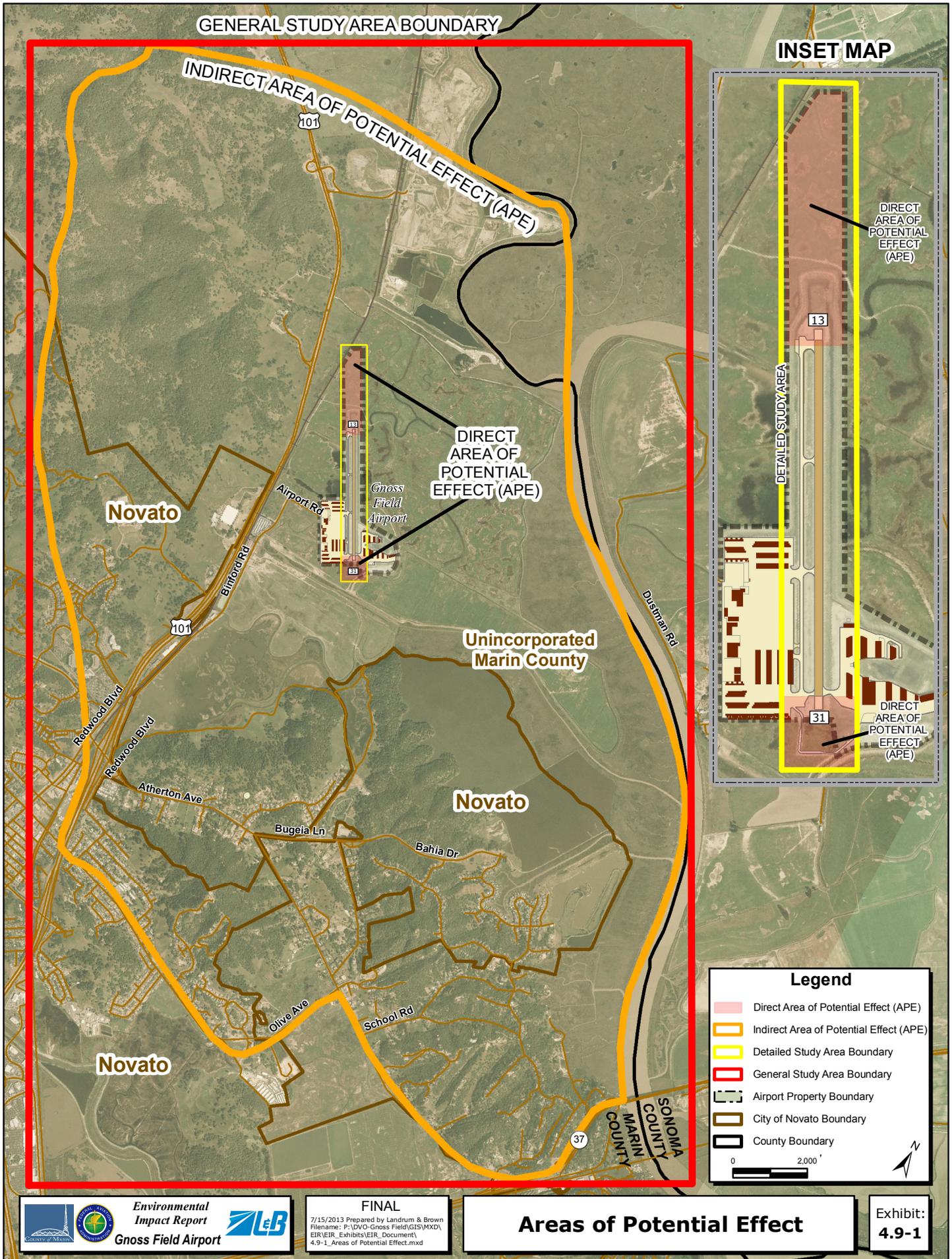
- National Register of Historic Resources (2005)
- California Register of Historic Resources (CRHR) (2005)
- California State Historic Landmarks (1996)
- Points of Historical Interest (1992)
- Rancho Novato Plat Map (1859)
- Rancho Olompali Plat Map (1859)
- GLO Plat Map, T 4N R6W (1871)
- United States Geographical Survey *Petaluma* 15' Topographic Quadrangle (1914)

This research found no known archaeological sites located within the Direct APE.

### Site Survey

On May 5-7, 2008, Kimberly Kersey and Daniel Trout of Tremaine, conducted an intensive pedestrian survey of a portion of the northern APE. The survey included 100 percent coverage of an irregularly-shaped parallelogram with an associated access road corridor located immediately north from the current Airport runway. The survey area totaled approximately 12.4 acres.

The survey was conducted in linear transects roughly running southwest-northeast. Transects were spaced no further than 10 meters apart, and often were placed at much narrower intervals. Ground cover was cleared to inspect exposed ground surface for cultural materials, changes in soil color and texture, or other evidence of previous human occupation. A hand-held Global Positioning System unit, digital camera, and appropriate documentation materials for recordation of any observed cultural resources were used. On September 26, 2009, an intensive archaeological survey was conducted by John Lopez and Kim Tremaine. It was focused upon the remaining portion of the northern APE as well as the southern APE. Survey methodology was the same as that employed during the May 5-7, 2008 survey.



GENERAL STUDY AREA BOUNDARY

INSET MAP

INDIRECT AREA OF POTENTIAL EFFECT (APE)

DIRECT AREA OF POTENTIAL EFFECT (APE)

DETAILED STUDY AREA

DIRECT AREA OF POTENTIAL EFFECT (APE)

DIRECT AREA OF POTENTIAL EFFECT (APE)

Novato

Unincorporated Marin County

Novato

Novato

**Legend**

- Direct Area of Potential Effect (APE)
- Indirect Area of Potential Effect (APE)
- Detailed Study Area Boundary
- General Study Area Boundary
- Airport Property Boundary
- City of Novato Boundary
- County Boundary



**BACK OF EXHIBIT 4.9-1**

During the field surveys, ground visibility was poor, varying from about 10 to 20 percent due to dense vegetation. Much of the southern APE was inundated with a shallow (1-2 inch deep) pond hosting tules and other aquatic vegetation. This made direct survey in this locale impossible. The far end of the northern APE, composed of gently undulating marshland, hosted grasses, herbs, and forbs in the elevated areas, in contrast to the periodically inundated bottomlands which were generally vegetation-free and sandy.

No *surficial* prehistoric, ethnohistoric, or historic cultural resources were observed during intensive survey of the APEs. A very limited subsurface testing effort was undertaken to determine presence/absence of buried cultural materials given poor ground visibility and possible paleo-living surfaces beneath accumulated San Francisco Bay infill over the last 10,000 years. Eight shovel test probes were excavated to sample locations within the northern APE. No cultural materials were observed.

### Conclusions

Based on the research and the site survey, no archaeological sites were identified in the Direct APE. Archaeological sites outside of the Direct APE are not considered potentially impacted by indirect effects, such as noise and visual characteristics.

## **HISTORIC RESOURCES**

### Research

The same research methods used above were also conducted to identify the presence of any state or Federally-listed or eligible properties on the California Register of Historic Places (RHP) and/or the NRHP.

There are no historic sites located within the Direct APE that are listed or eligible for listing on the national or state registers of historic places. The site of the Oldest House North of San Francisco Bay, California Register of Historic Resources, California State Historic Landmark, Marin County, #210, is within the Indirect APE, but is not eligible for NRHP listing because the house was previously destroyed by fire.<sup>3</sup> Also located within the Indirect APE are historic structures within the Olompali Burdell Ranch Complex. Each site contains a series of structures, many of which are recommended as eligible for nomination to the NRHP.<sup>4</sup> **Exhibit 4.9-2, *Historic Resources within the Areas of Potential Effect***, depicts the locations of these sites.

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<sup>3</sup> Oldest House North of San Francisco Bay, California Office of Historic Preservation, 2008. On-line at: [http://www.parks.ca.gov/listed\\_resources/default.asp?num=210](http://www.parks.ca.gov/listed_resources/default.asp?num=210)

<sup>4</sup> *Historic Resource Evaluation Report for the Main-Sonoma Narrows Project on U.S. Highway 101 from the Vicinity of Novato, Marin County to the Vicinity of Petaluma, Sonoma County.* Prepared for Office of Cultural Resources Studies, California Department of Transportation, District 4. On file, California Department of Transportation, Oakland and Sacramento.

### Site Survey

As discussed above, a field survey was completed for the Direct APE and no historic structures were found.

### Conclusions

Two historic sites (one no longer present) within the Indirect APE were identified. Based on the research and the site survey, no historic sites were identified in the Direct APE.

## **TRIBAL RESOURCES**

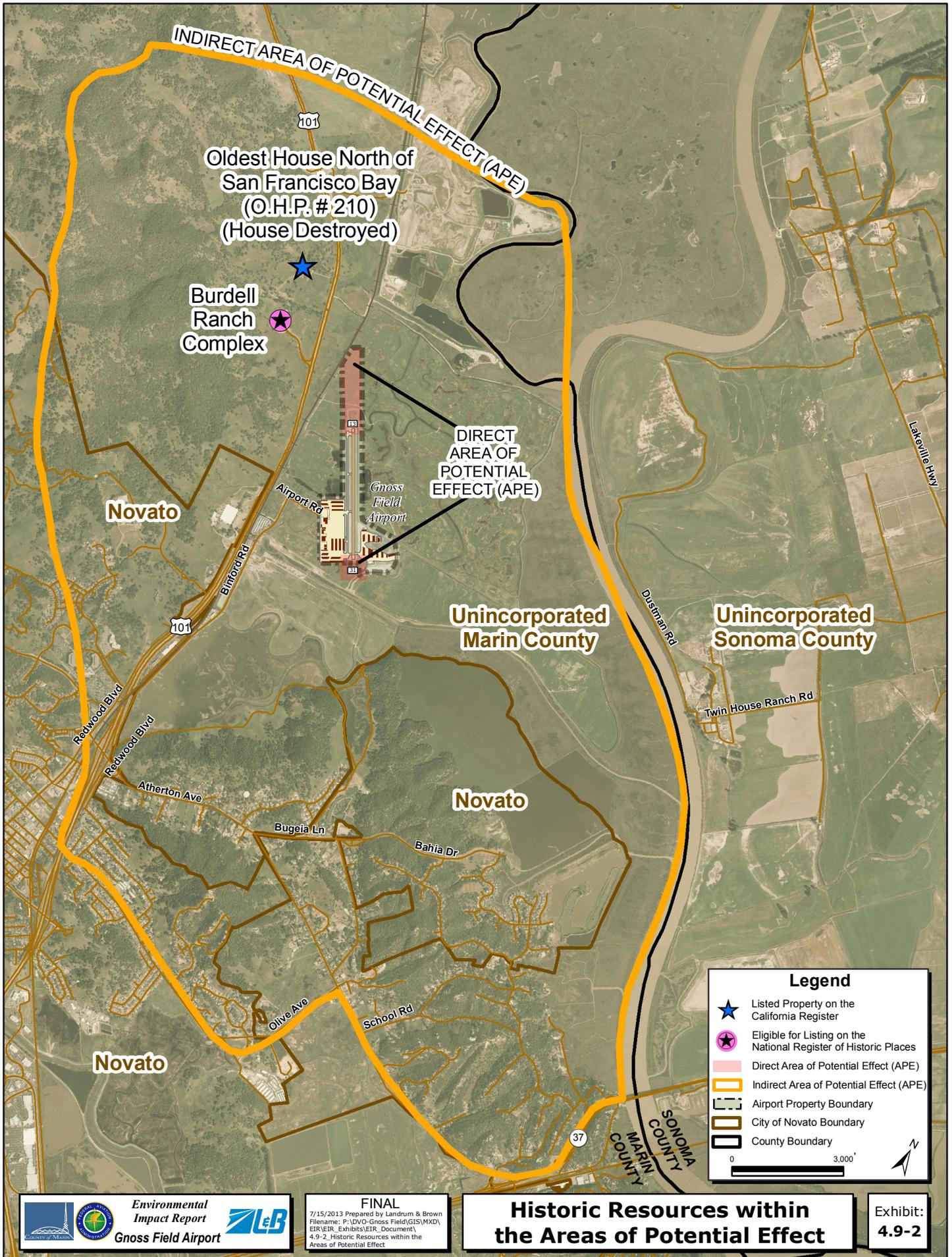
### Research

The Native American Heritage Commission (NAHC) was contacted on February 14, 2008; with a request for a query of the Sacred Lands File and a list of Native American contacts (see Appendix H for Native American consultation documentation). On February 20, 2008, the NAHC responded, indicating that a records search of the Sacred Lands File revealed no Native American Cultural Resources have been recorded within the Direct or Indirect APEs. The NAHC also provided a list of Native American individuals and organizations that might have concerns with or interest in the proposed undertaking at Gness Field.

The individuals and organizations indicated by the NAHC as having Coast Miwok associations were contacted by letter on February 22, 2008. Follow-up phone calls were conducted on March 10, 2008 with Nick Tipon, FIGR, and on April 23 and 25, 2008, with Kathleen Smith and Betty Molina, a representative of Ya-Ka-Ama. Mr. Tipon expressed several concerns with the Proposed Project. These included the proposed boundaries of the Direct and Indirect APEs, depths of proposed subsurface construction excavations, the presence of recorded prehistoric/ethnohistoric sites within the Indirect APE near the Direct APE, and the project's impact upon waterways which might affect plants important to Native Americans. Mr. Tipon indicated that he would serve as the main contact for the Federated Indians of Graton Rancheria. Mr. Tipon's concerns were taken into consideration when developing the final APEs and the research and survey methods used for the study. Both Ms. Smith and Ms. Betty Molina of Ya-Ka-Ama had no immediate concerns. To date, no comments from the remaining individuals contacted have been received.

### Site Survey

As discussed above, a field survey was completed for the Direct APE and no cultural or Native American resources found. Mr. Tipon of the FIGR was alerted to the field surveys in advance.



INDIRECT AREA OF POTENTIAL EFFECT (APE)

Oldest House North of San Francisco Bay  
(O.H.P. # 210)  
(House Destroyed)

Burdell Ranch Complex

DIRECT AREA OF POTENTIAL EFFECT (APE)

Gross Field Airport

Novato

Unincorporated Marin County

Unincorporated Sonoma County

Novato

Novato

**Legend**

- ★ Listed Property on the California Register
- ☆ Eligible for Listing on the National Register of Historic Places
- Direct Area of Potential Effect (APE)
- Indirect Area of Potential Effect (APE)
- Airport Property Boundary
- City of Novato Boundary
- County Boundary

0 3,000'

**BACK OF EXHIBIT 4.9-2**

## Conclusions

Based on the research and the site survey, no Native American resources were identified in the Direct APE.

### **4.9.2 ENVIRONMENTAL IMPACTS AND MITIGATION**

#### **4.9.2.1 Significance Criteria**

According to Appendix N of the Marin County Environmental Impact Review Guidelines, the significance criteria for impacts to historical and archaeological resources is generally determined by whether Federally or state-listed resource are affected by the project, as follows.

- a) Does the project disrupt or adversely affect a prehistoric or archaeological site, or a property of historic or cultural significance to a community or ethnic or social group, or a paleontological site, except as part of a scientific study?
- b) Does the project affect a local landmark of local/cultural/historical importance?

For the purposes of the discussion of impacts, the following project-related activities were considered:

Ground-disturbing activities: Project related excavation, grading, trenching, or other sub-surface disturbance could damage or destroy buried archaeological or paleontological resources including prehistoric and historic remains, human burials, or significant fossil deposits.

Disruption to the aesthetic or visual characteristics: Project related activities, such as the runway extension, could result in aircraft being located closer to historic resources and thereby diminish or impair the value of the resource. The FAA has developed guidelines for identifying potential noise-related impacts on various land uses. The land use of a cultural resource site can be used to identify potential impacts.

#### **4.9.2.1 Environmental Impacts of the Proposed Project**

**Impact 4.9-1: The Proposed Project would not directly affect any known cultural resources. However, there is always the possibility that currently unknown subsurface cultural resources may be present and could be impacted by project construction. (Potentially significant unless mitigated)**

There are no historic, architectural, archaeological, tribal, or cultural resources located within the area that would be directly disturbed through construction activities. Therefore, the Proposed Project would not disturb or affect any cultural

resource. However, there is always the possibility that currently unknown subsurface cultural resources may be present and could be impacted by project construction.

**Mitigation: 4.9.2-1:** If during the course of construction, artifacts or human remains are encountered, Marin County shall do the following:

Non-Human Remains/Artifacts: In the event that archaeological artifacts are encountered during project construction, work in the area shall halt until a qualified archaeologist evaluates the nature and significance of the find. If the remains are deemed significant, the project, if necessary, shall be modified to allow the artifacts or features to remain in place, or the archaeological consultant shall undertake the recovery of the deposit or feature. The archaeologist shall prepare a summary outlining the methods followed and summarizing the results of the mitigation program. The report shall outline the methods followed, list and describe the resources recovered, map their exact locations and depths, and include other pertinent information. Marin County shall submit the report to the Northwest Information Center and the California State Historic Preservation Officer. If the suspected remains prove to be non-significant or non-cultural in origin, work will recommence immediately.

Human Remains: In the event that human skeletal remains are discovered at the site during construction, work shall be discontinued in the area of the discovery and the County Coroner shall be contacted. If skeletal remains are found to be prehistoric Native American remains, the Coroner shall call the Native American Heritage Commission within 24 hours. The Commission will identify the person(s) it believes to be the "Most Likely Descendant" of the deceased Native American. The Most Likely Descendant would be responsible for recommending the disposition and treatment of the remains. The Most Likely Descendant may make recommendations to the landowner or the person responsible for the excavation/grading work for means of treating or disposing of the human remains and any associated grave goods as provided in California Public Resources Code Section 5097.98.

**Significance After Mitigation** – Implementation of Mitigation Measure 4.9-1 will reduce the impacts to less than significant levels.

**Responsibility and Monitoring** – The Marin County Department of Public Works shall be responsible for incorporating the provisions of Mitigation Measure 4.9-1 into all construction contracts. Marin DPW shall verify compliance with Mitigation Measure 4.9-1.

**Impact 4.9-2: The Proposed Project would have the potential to increase noise over two historic sites (less than significant).**

There are two historic sites located north of the Airport (see Exhibit 4.9-2). The proposed runway extension would result in aircraft being slightly lower and therefore louder when landing from the north, near the historic sites. When aircraft depart to the north, they would be at the same altitude they are today; therefore

no change in noise level is expected for that condition. The FAA and the State of California each have specific guidelines that indicate acceptable noise levels with land uses. In general, the FAA's Federal standard is that historic resources located in areas exposed to noise levels below 65 Community Noise Equivalent Level (CNEL) are not considered impacted by aircraft noise. Marin County, in enforcing the State of California's acceptable noise levels, has identified an annual average 60 Day/Night Noise Level (Ldn) as an appropriate benchmark for identifying and assessing noise problems.<sup>5</sup> The Community Noise Equivalent Level, (CNEL) is a measure of the cumulative noise exposure in a community, with a five dB penalty added to evening (i.e., 7:00 PM - 10:00 PM) noise levels and a ten dB addition to nocturnal (10:00 PM - 7:00 AM) noise levels. The Day/Night Average Sound Level (Ldn) is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period. Neither of the sites near the Airport receive noise equal to or in excess of 65 CNEL or 60 Ldn today. With implementation of the Proposed Project, noise levels would increase by approximately 0.4 CNEL, but would stay well below 65 CNEL and 60 Ldn. In general, a change in noise level below 1.5 dB is not considered perceptible. Therefore, the increase in noise associated with the Proposed Project is less than significant and no mitigation is required. For more information regarding the noise analysis for the Proposed Project, see Section 4.7, *Noise* and Appendix E, *Noise Methodology*.

**Mitigation:** None required.

### **4.9.3 CUMULATIVE IMPACTS OF THE PROPOSED PROJECT**

Because the Proposed Project would not result in significant impacts to cultural resources, it would therefore not result in subsequent contribution to cumulative impacts to cultural resources.

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<sup>5</sup> Marin Countywide Plan, adopted November 6, 2007. On-line at: [www.co.marin.ca.us/depts/cd/main/fm/index.cfm](http://www.co.marin.ca.us/depts/cd/main/fm/index.cfm).

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