

4.3 CULTURAL AND SCIENTIFIC RESOURCES

This section evaluates the potential for the GAIP to have adverse effects on cultural and paleontological resources. Information in this section is based upon the records searches and literature reviews of information available for the General Aviation Improvement Program (“GAIP”) on or before November 21, 2016.

4.3.1 REGULATORY SETTING

In addition to CEQA itself, various cultural resource laws, regulations, and guidelines set up the processes for defining what is or is not a significant cultural resource and include various agency procedures for managing these archaeological resources and accessing the information that cultural remains can provide to determine their importance. Most importantly is whether these cultural remains are eligible for inclusion in a national or state register (i.e., National Register of Historic Places [“NRHP”] and the California Register of Historic Resources [“CRHR”]). The purposes of the laws and regulations serve to do the following:

- Set forth the criteria for assessing the relative importance of cultural remains,
- Outline the procedures for reviewing assessments,
- Delineate the responsible parties involved in making such assessments,
- Identify and define the extent of jurisdiction and responsibility of each party in the evaluation process,
- Set forth the criteria for making a determination of significance as well as indicating which party can or cannot make such determinations,
- Set forth the criteria for the archaeological and historic preservation work performed, and
- Set forth the criteria regarding who can perform the archaeological and historic preservation work.

The following subsections provide a summary of applicable federal and state laws, regulations, and standards that govern cultural resource management within the portion of the Airport proposed for GAIP activities.

Federal

This Program EIR is being prepared pursuant to the California Environmental Quality Act (“CEQA”). Information on Federal requirements is provided for informational purposes and would be addressed in the documentation prepared pursuant to the National Environmental Policy Act (“NEPA”).

The National Historic Preservation Act of 1966

The National Historic Preservation Act (“NHPA”) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places (“NRHP”).

Section 106 of the National Historic Preservation Act

Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation (“ACHP”) the opportunity to comment on those undertakings as part of the environmental assessment process, following regulations issued by the ACHP (36 Code of Federal Regulations [“CFR”] 800).

Section 106 of the NHPA defines “historic properties” as:

Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR Part 800 Protection of Historic Properties, Section 800.16 Definitions [I] [1]).

Section 36 CFR 60.4, provides the criteria for evaluating properties for nomination to the NRHP. The following guidance is provided in the regulation:

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- (a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
- (b) that are associated with the lives of persons significant in our past; or
- (c) that embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinctions; or
- (d) that have yielded, or may be likely to yield information important in prehistory or history.

As discussed above, for a property to be listed in the NRHP, it must meet one or more of the criteria of significance, and it must also retain integrity.

Native American Graves and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGRPA) established a means for Native Americans, including Indian Tribes, to request the return of human remains and other sensitive cultural items held by federal agencies or federally assisted museums or institutions. NAGRPA also contains provisions regarding the intentional excavation and removal of, inadvertent discovery of, and illegal trafficking in Native American human remains and sensitive cultural items.

State

California Public Resources Code (Section 21083.2 and 21084.1)

CEQA requires a lead agency to determine whether a project would have a significant effect that would cause a substantial adverse change in the significance of a historical resource or a unique archaeological resource. California Public Resources Code (“PRC”) Sections 21083.2 and 21084.1 deal with the definitions of unique and non-unique archaeological resources and historical resources.

Unique Archaeological Resource

The CEQA statutes (PRC Section 21083.2 (g)) define a “unique archaeological resource” as:

... an 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:

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

Section 21083.2 directs the lead agency to determine whether the project may have a significant effect on unique archaeological resources. If the lead agency determines that the project may have a significant effect on unique archaeological resources, the environmental impact report shall address the issue of those resources. CEQA requires the lead agency to consider whether the project will have a significant effect on unique archaeological resources and to avoid unique archaeological resources when feasible or mitigate any effects to less-than-significant levels per PRC 21083.2.

Additionally, State CEQA Guidelines Section 15126.4(b)(3) provides guidance for the consideration of unique archaeological resources and states:

Public Agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered and discussed in an EIR for a project involving such an archaeological site:

- (A) Preservation in place is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.

- (B) Preservation in place may be accomplished by, but is not limited to, the following:
1. Planning construction to avoid archaeological sites;
 2. Incorporation of sites within parks, greenspace, or other open space;
 3. Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site;
 4. Deeding the site into a permanent conservation easement.
- (C) When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archaeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during project excavation or testing, curation may be an appropriate mitigation.
- (D) Data recovery shall not be required for an historical resource if the Lead Agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the determination is documented in the EIR and that the studies are deposited with the California Historical Resources Regional Information Center.”

Historical Resource

A “historical resource” is defined in Section 21084.1 of the State CEQA Statutes and Section 15064.5(a) of the Guidelines, as a resource listed in or determined to be eligible for listing in the CRHR (PRC Section 21084.1); a resource included in a local register of historical resources (14 California Code of Regulations [“CCR”], Section 15064.5[a][2]); or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (14 CCR Section 15064.5[a][3]).

The criteria for listing resources in the CRHR, which were expressly developed to be in accordance with previously established criteria developed for listing in the NRHP (per the criteria listed at 36 CFR Section 60.4) are stated below.

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possesses integrity of location, design, setting, materials, workmanship, feeling and association and:

- (a) that are associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage; or
- (b) that are associated with the lives of persons important in our past; or

- (c) that embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- (d) that have yielded, or may be likely to yield, information important in prehistory or history.

Section 5024.1 of the PRC, Section 15064.5 of the State CEQA Guidelines (14 CCR), and Sections 21083.2 and 21084.1 of the CEQA Statutes were used as the basic guidelines for the cultural resources study. PRC 5024.1 requires evaluation of historical resources to determine their eligibility for listing in the CRHR. The purposes of the CRHR are to maintain listings of the State's historical resources and to indicate which properties are to be protected from substantial adverse change.

Substantial adverse change in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired.

The significance of a historical resource is materially impaired when a project:

- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources...unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

California Health and Safety Code (Sections 7050.5, 7051, and 7054)

These sections of the *California Health and Safety Code* collectively address the illegality of interference with human burial remains (except as allowed under applicable sections of the California Public Resources Code). These sections also address the disposition of Native American burials in archaeological sites and protect such remains from disturbance, vandalism, or inadvertent destruction. Procedures to be implemented are established for: (1) the discovery of Native American skeletal remains during construction of a project; (2) the treatment of the remains prior to, during, and after evaluation; and (3) reburial.

Section 7050.5 of the *California Health and Safety Code* specifically provides for the disposition of accidentally discovered human remains. Section 7050.5 states that, if human remains are found, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner (Coroner) has determined the appropriate treatment and disposition of the human remains.

California Public Resources Code (Section 5097.98)

Section 5097.98 of the *California Public Resources Code* states that, if the Coroner determines that remains are of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours which, in turn, must identify the person or persons it believes to be the most likely descended from the deceased Native American. The descendants shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains. This section of the *California Public Resources Code* has been incorporated into Section 15064.5(e) of the State CEQA Guidelines.

California Public Resources Code (Section 5097.5)

Section 5097.5 of the *California Public Resources Code* limits the excavating, removal, destruction or defacing of any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site situated on lands owned or under the jurisdiction of the state, or any city, county, district, authority or public corporation, or any agency thereof.

4.3.2 METHODOLOGY

CEQA requires a lead agency to determine whether a project would have a significant effect that would cause a substantial adverse change in the significance of a historical resource or a unique archaeological resource. The cultural resource analysis in this section provides that documentation and is based on the record searches and consideration of the issues described below. For purposes of evaluating impacts, the portion of the Airport dedicated to general aviation activity or proposed as potential staging areas (see Exhibit 2-1) is assumed to be the Area of Potential Effect (“APE”) because it would encompass the full area that may be directly or indirectly affected by the GAIP activities. The APE would be the same for all GAIP scenarios.

Cultural Resources Records Search

A cultural resources records search was conducted for the GAIP at the South Central Coastal Information Center (“SCCIC”) at California State University, Fullerton on November 21, 2016. Based on the search, at least 50 cultural resources studies were undertaken within ½-mile of the Airport and two of the studies included a portion of the Airport, although none identified any cultural resources within the GAIP APE. Though the GAIP will not involve improvements to the entire Airport site, for purposes of the cultural resources record search, the approximately 400 acres of the Airport dedicated to aviation activity was assumed as the GAIP study area. The SCCIC is the designated branch of the California Historical Resources Information System (“CHRIS”) for the GAIP area and houses records concerning archaeological and historic resources in Los Angeles, Ventura, San Bernardino, and Orange Counties.

The review consisted of an examination of the U.S. Geological Survey’s (“USGS”) Newport Beach and Tustin, California 7.5-minute quadrangles to determine if any cultural resources studies have been conducted on or within a ½-mile radius of the parcel. The records search provided data on recorded archaeological and built environment resources on or within ½ mile of the GAIP APE. Sources consulted at the SCCIC included archaeological records, Archaeological Determinations of Eligibility, historic maps, and the Historic Property Data File (“HPDF”)

maintained by the California Office of Historic Preservation. The HPDF contains listings for the CRHR and/or the NRHP, California Historical Landmarks, and California Points of Historical Interest.

In conjunction with the evaluation of Tribal Cultural Resources, the Native American Heritage Commission (“NAHC”) conducted a Sacred Lands File (“SLF”) search for the GAIP area. The search failed to identify any sacred places or objects with cultural value to a California Native American tribe on the Airport property. The County extended an offer for consultation to tribes that have expressed an interest in being consulted regarding Native American resources for the projects being undertaken in unincorporated Orange County. The Gabrielino Band of Mission Indians – Kizh Nation responded. This consultation did not identify any known resources. Tribal Cultural Resources is more fully discussed in Section 4.9 of this Program EIR.

Paleontological Literature Review

The literature review included an examination of the geologic maps for the GAIP disturbance area. The literature review encompasses the entire GAIP footprint and included a one-mile buffer around the GAIP disturbance area. In addition to the reviewed published geologic maps, technical reports provided the basis from which the regional and project-specific geology was derived for the GAIP.

Relevant published literature and unpublished manuscripts regarding the geology and paleontology of central Orange County were also reviewed for the GAIP. In the process of conducting the background literature review, existing paleontological resource data (including such published resources as books, journals, and geologic maps, as well as information available via the internet on government websites) were consulted. Additionally, an online database search was conducted to identify previous paleontological resource assessments conducted within the boundaries of the GAIP disturbance area and the surrounding areas.

Paleontological Resources Records Search

A paleontological resources records search and literature review was conducted by staff of the Los Angeles County Natural History Museum (“LACNHM”) on December 5, 2016.

Cultural and Paleontological Resources Survey

The GAIP APE is located in an entirely built environment; therefore, an archaeological and paleontological field survey was not conducted.

Historic Resources

The evaluation of potential historic resources was based on literature review, including use of files at the SCCIC, of the City of Newport Beach *Historic Resources Element of the General Plan*, historic aerial photographs from www.historicaerials.com, and the Cultural Resources Technical Appendix prepared to support the Mitigated Negative Declaration and the Finding of No Significant Impact for the John Wayne Airport Jet Fuel Pipeline project (also known as the Wickland Pipeline). The analysis used the Secretary of Interior standard guidelines for review of potential National Register-eligible buildings, structures, or features that are 50 years of age or

older as a screening of buildings, structures, and objects that would be directly or indirectly impacted by the GAIP. For indirect impacts, structures immediately adjacent to GAIP APE were reviewed.

4.3.3 EXISTING CONDITIONS

Prehistory

To understand Native American cultures prior to European contact, archaeologists have devised chronological frameworks that endeavor to correlate the observable technological and cultural changes in the archaeological record to distinct periods. These chronological frameworks have not been fully accepted since the development of an overall chronological framework for the region is hindered by the lack of a sufficient number of sites with distinct stratigraphic layers of cultural sequences that could be dated by absolute dating methods. Since results from archaeological investigations in this region have yet to be synthesized into an overall chronological framework, most archaeologists tend to follow a chronology adapted from a scheme developed by William J. Wallace in 1955 and modified by others. Although the beginning and ending dates of the different horizons or periods may vary, the general framework of prehistory in this region consists of the following four periods:

- **Horizon I: Early Man or Paleo-Indian Period (11,000 BCE¹ to 7,500 BCE).** This early stage of human occupation is commonly referred to as the Paleo-Indian period today (Chartkoff and Chartkoff 1984:24). At inland archaeological sites, the surviving material culture of this period is primarily lithic, consisting of large, extremely well made stone projectile points and tools such as scrapers and choppers. Encampments were probably temporary, located near major kills or important resource areas.
- **Horizon II: Milling Stone Assemblages (7,500 BCE to 1,000 BCE).** The Milling Stone Period was named for the abundant millingstone tools associated with sites of this period. These tools, the mano and metate, were used to process small, hard seeds from plants associated with shrub-scrub vegetation communities. An annual round of seasonal migrations was likely practiced, with movements coinciding with ripening vegetal resources and the periods of maximal availability of various animal resources. In addition to gathering activities, evidence suggests that a diversity of subsistence activities, including hunting of various game animals, were practiced during this period of time (Koerper 1981; Koerper and Drover 1983).
- **Horizon III: Intermediate Cultures (1,000 BCE to 750 CE).** The Intermediate period is identified by a mixed strategy of plant exploitation, terrestrial hunting, and maritime subsistence strategies. Evidence of increased mortar and pestle use during this time period is present. The mano and metate continued to be in use on a reduced scale, but the greatly intensified use of the mortar and pestle signaled a shift away from a subsistence strategy based on seed resources to that of the acorn. It is probably during this time period that the acorn became the food staple of the majority of the indigenous tribes in Southern California. This subsistence strategy continued until European contact. Material culture generally became more diverse and elaborate during this time period and

¹ BCE stands for "Before Common Era" and CE stands for "Common Era". These alternative forms of "BC" and "AD", respectively, are used throughout this document.

includes steatite containers, perforated stones, bone tools, ornamental items, and asphalt adhesive.

- **Horizon IV: Late Prehistoric Cultures (750 CE to 1769 CE).** During the Late Prehistoric period, exploitation of many food resources, particularly marine resources among coastal groups, continued to intensify. The material culture in the Late Prehistoric Horizon increased in complexity in terms of the abundance and diversity of artifacts being produced. Evidence recovered from this period of time suggests a greater use of the bow and arrow. Shell beads, ornaments, and other elements of material culture continue to be ornate, varied, and widely distributed, the latter evidence suggestive of elaborate trade networks.

History

The major historic periods for the greater Southern California area are defined by key events documented by participants, witnesses, historians, and cartographers. Paramount among these was the transfer of political control over Alta California, including the study area specifically.

- Spanish Period (1769–1821)
- Mexican Period (1821–1848)
- American Period (1848–Present)

The historic era encompasses the period of occupation by European descendants. This period marked a time of disease, exploitation, and deculturation of the native peoples beginning circa 1769 with the founding of the Mission San Diego de Alcalá. The occupation and control by the Spanish was passed on to Mexico after the latter gained its independence in 1821. The Mexican Period, in turn, gave way to control by the United States subsequent to the Mexican-American War and the treaty of Guadalupe Hidalgo in 1848.

Spanish Period

Spanish explorer Juan Rodriguez Cabrillo made a temporary landfall at the Chumash village of *Sisolop* (present-day Ventura) on October 12, 1542 (Grant 1978:518). He was the first of several early explorers, representing several nations, to explore the *Alta California* coast. However, the end of the prehistoric era in Southern California is marked by the arrival of the Gaspar de Portolá overland expedition from New Spain (Mexico) and founding of the first Spanish settlement at San Diego on July 16, 1769 (Johnston 1962). Though Spain had claimed California for more than 200 years, it was not until 1769 that the first efforts were made to colonize Orange County with the founding of Mission San Juan Capistrano on November 1, 1776.

Mexican Period

Mexico's independence from Spain in 1821 brought the Mexican Period in Alta California. The new government of Mexico had a very different outlook on mission activities. Secularization of the missions, planned under the Spanish, was greatly accelerated by the Mexican government. Mexico secularized the missions in 1833 and expanded on the Spanish practice of granting large tracts of ranch land to soldiers, civil servants, and pioneers. Plans to provide land, training, and living quarters for the Native American population never developed, and the mission lands were

soon under the control of a relatively few influential Mexican families. The rancho life style was relatively short lived but remains an influential period in California history.

American Period

Americans began to explore Alta California as early as 1826, when trapper Jedediah Smith arrived at Mission San Gabriel (Morgan 1953:200–202; Lewis 1993:441). An increasing influx of Americans from the eastern United States during the 1840s spurred an American challenge for the California territory. The American Period began with Mexico's defeat at the end of the Mexican-American War, resulting in the concession of California to the United States under the Treaty of Guadalupe Hidalgo on February 2, 1848 (Rolle 1998:91, 104). Only a few days before the treaty was signed, gold was discovered on the American River, however the Gold Rush of 1848–1849 was not started until several months later. American dominance became more apparent in 1850 when California became a state and was divided into 21 original counties (Marschner 2000). The County of Orange was formed in 1889.

John Wayne Airport

General aviation activities were started on what ultimately became JWA by aviation pioneer Eddie Martin, who founded the airfield after signing a five-year lease with the landowner, the Irvine Company. Martin also opened a flying school and established Martin Aviation, one of the nation's oldest aviation firms. From 1923 to 1939, the Airport operated as a privately owned general aviation facility. Eddie Martin Airport became a publicly owned facility in 1939 when the County of Orange acquired the site after a land transfer with the Irvine Company. The FAA gave the Airport the designator SNA, after Santa Ana, which was the largest city near the Airport at the time. In 1940, construction began on a new County airport after the Board of Supervisors appropriated \$7,500 to build a 2,500 foot paved runway and taxi strip a mile south of the Eddie Martin Airport. In 1941 the County constructed an office building, hangar and field lighting.

After the 1941 attack on Pearl Harbor all civilian flying was halted within 150 miles of the West Coast. The federal government entered into a \$1-per-year lease with the County of Orange for use of the Airport during the war. In 1942 the United States government condemned both the property owned by the County of Orange and property leased from the Irvine Company for the purpose of an Airport. The County's Airport subsequently became part of the Santa Ana Army Airbase owned by the federal government, and military operations began shortly thereafter.

After serving as a military base during World War II, it was returned by the federal government to the County. In 1952 the first regular airline service began when Arizona-based Bonanza Airlines signed a lease agreement with the County. In 1959 the FAA Control Tower opened south of its present location. A passenger terminal was built in 1967 but was demolished in 1994 after Terminals A and B and the parking structure facilities opened in 1990. In 2011 the terminal area was again improved with the opening of Terminal C. Through all the improvements, the County remained committed to maintaining both general aviation and commercial aviation uses.

Resource Description

Archaeological Resources

The CHRIS, maintains records and literature regarding cultural resources within California at nine regional offices. The CHRIS office for Orange County is located at California State University, Fullerton California. That office, the SCCIC, was the primary source for information regarding historic resources relevant to JWA.

Studies

A records search and literature review was conducted on November 21, 2016. It identified at least 50 cultural resources studies undertaken within ½ mile of the GAIP APE. Two of these studies included at least a portion of the GAIP APE (Table 4.3-1). However, neither study resulted in the identification of any cultural resources on the GAIP APE.

**TABLE 4.3-1
CULTURAL RESOURCES STUDIES COMPLETED
WITHIN HALF-MILE OF THE AIRPORT**

Report Number	Recorder/Year	Type of Study	Included the GAIP APE
OR-00044	Desautels 1977	Archaeological Survey Report	No
OR-00134	Desautels 1976	Archaeological Survey Report	No
OR-00246	Cottrell 1978	Archaeological Resource Assessment	No
OR-00270	Nelson and Hall 1975	Cultural Resources Evaluation	No
OR-00289	Van Horn 1978	Archaeological Survey Report	No
OR-00305	Schroth 1979	Irvine Ranch History	No
OR-00427	Mabry 1979	Test-Level Investigation	No
OR-00518	Brock 1980	Test Excavation	No
OR-00720	Cottrell 1983	Records Search	No
OR-00847	Padon 1985	Archaeological Resource Inventory	Yes
OR-00888	Mabry 1981	Archaeological Survey Report	No
OR-01016	Leonard 1975	Environmental Impact Evaluation	No
OR-01027	Van Horn 1990	Archaeological Survey Report	No
OR-01161	Mason and Brechbiel 1991	Monitoring Report	No
OR-01197	Brown 1992	Cultural Resources Reconnaissance	No
OR-01279	Mason and Brechbiel 1991	Monitoring Report	No
OR-01339	Demcak and Cottrell 1985	Archaeological Overview	No
OR-01350	McKenna and De Barros 1993	Archaeological Survey Report	No
OR-01351	McKenna and De Barros 1993	Archaeological Survey Report	No
OR-01380	Mason 1994	Treatment Plan	No
OR-01656	Mason 1997	Cultural Resources Survey Report	No
OR-01717	Mason and Brechbiel 1997	Monitoring Report	No
OR-01942	Padon 1999	Archaeological Resources Report	No
OR-01952	Anonymous 1996	Historic Property Survey Report	No

**TABLE 4.3-1
CULTURAL RESOURCES STUDIES COMPLETED
WITHIN HALF-MILE OF THE AIRPORT**

Report Number	Recorder/Year	Type of Study	Included the GAIP APE
OR-01985	Duke 1999	Cultural Resource Assessment	No
OR-02013	Wlodarski 1990	Archaeological Survey Report	No
OR-02131	Duke 2000	Cultural Resources Assessment	No
OR-02176	Lapin 2000	Cultural Resource Assessment	No
OR-02225	Strozier 1978	Planning Process	No
OR-02238	Lapin 2000	Cultural Resources Assessment	No
OR-02242	Duke 2000	Cultural Resources Assessment	No
OR-02247	Alcock 2000	Cultural Resources Investigation	No
OR-02256	Demcak 1999	Cultural Resources Assessment	No
OR-02260	Duke 2000	Cultural Resources Assessment	No
OR-02266	Demcak 1999	Archaeological Survey Report	No
OR-02301	Avina 2001	Monitoring Report	No
OR-02348	McKenna 2001	Cultural Resource Assessment	No
OR-02493	Billat 2000	Archaeological Investigation	No
OR-02494	Thane 2001	Archaeological Investigation	No
OR-02534	Unknown 1976	Archaeological Overview	No
OR-03231	Fulton and Fulton 2005	Archaeological Investigation	No
OR-03353	Schneeberger et al. 2006	Paleontological Resource Report	No
OR-03354	Schneeberger et al. 2006	Archaeological Survey Report	No
OR-03373	Arrington and Sikes 2006	Monitoring Report	No
OR-03972	Kim 2007	Technical Study	Yes
OR-04068	Fulton 2010	Cultural Resources Assessment	No
OR-04103	Fulton 2009	Cultural Resource Study	No
OR-04172	Chasteen 2011	Historic Property Survey Report	No
OR-04223	Flynn 2011	Feasibility Study	No
OR-04232	Bonner 2012	Records Search/Site Visit	No

An archaeological overview was conducted in 1985 by Beth Padon. The study focused on the City of Irvine and its sphere of influence. Although not done for the Airport, the northernmost portion of the GAIP APE north of I-405 was included in the study. The second investigation that included a portion of the study APE was conducted in 2007 by Steve Kim and focused on 12 very small sites located over most of the GAIP APE south of I-405. This study was done for the Airport to evaluate locations for the placement of an Airport related navigational system.

Neither of the two studies identified any cultural resources within their respective boundaries. No resources were impacted as a result. Additionally, there are no records filed with the SCCIC regarding discovery of resources during the construction of the 1985 Master Plan Improvements, which included Terminals A and B, or the more recent construction of Terminal C. Additionally, the County does not have any record of such discoveries.

Previously Recorded Sites

The SCCIC literature review undertaken on November 21, 2016, showed that one cultural resource site had been recorded within ½-mile of the GAIP APE (Table 4.3-2).

**TABLE 4.3-2
CULTURAL RESOURCES SITES WITHIN HALF-MILE OF THE AIRPORT**

Site Number	Recorder/Year	Description	Located Within Project Site
CA-ORA-1223	Van Horn 1990	Prehistoric habitation	No

The only site recorded within ½ mile of the GAIP APE is ORA-1223, a prehistoric site identified by shellfish remains and lithic implements and manufacturing debris. The site is not within the GAIP APE and will not be affected by the GAIP.

Paleontological Resources

The GAIP area is comprised of Quaternary Marine Terrace deposits, with some younger alluvial deposits overlying the northeastern portion. The alluvial deposits are derived from both the hills to the northeast and the Santa Ana River floodplain to the west of the GAIP area. Marine terrace deposits are blocks of sedimentary rocks that are preserved through a process of erosion of wave-cut platforms, subsequent deposition of coastal and alluvial sediments, and tectonic uplift. The base of marine terrace at JWA is dated at 120,000 years before present (Powell et al., 2005). The younger Quaternary alluvial deposits are not likely to contain significant vertebrate fossils, but marine terrace deposits similar to those found within the GAIP area are likely to produce significant fossils.

There were no fossil localities found during the LACNHM records search that lie within the GAIP boundary, although many have been recorded from similar-aged sediments within the same block of marine terrace. LACNHM 4219 is approximately 1.5 miles southwest of the GAIP area. A sea turtle, Cheloniidae, and camel, Camelidae, were found 30 feet below the surface. An undetermined elephant, Proboscidea, was recovered at LACNHM 3267, further to the southwest. A third locality, west of the GAIP area, produced fossils of *Mammuthus sp.* (mammoth) and Camelidae approximately 15 feet below the top of the mesa. Additional localities with a wide variety of Late Pleistocene fauna have been documented along the southern portion of the marine terrace deposit near Upper Newport Bay.

Historic Resources

Exhibit 4.3-1 is an aerial photograph taken in 1970 (48 years ago), which provided the baseline for determining structures on the Airport and immediately adjacent to the Airport that would need to be assessed as a potential historic resource because they are 50 years old or older. The 50-year or older threshold originally comes from 36 Code of Federal Regulations 60.4, which pertains to the National Register. Furthermore, those regulations require a resource to be “exceptionally important” to be considered eligible for listing. In contrast, the California Register criteria (CCR § 4852) state that for a resource to achieve significance within the past 50-years, sufficient time must have passed to obtain a scholarly perspective on the events or individuals

associated with the resource. As shown, there were limited improvements on and adjacent to the Airport in 1970. The west side of the Airport was completely undeveloped. On the east side of the Airport, the aerial photograph does show several of the buildings on the Airport were built prior to 1970 both on the Airport and across Campus Drive in the City of Newport Beach. An aerial photograph from 1995 (Google Earth), shows the progression of development and changes to the Airport. Exhibit 1-3 provided in the Executive Summary provides a current aerial of the Airport. This provides a visual record of the development of the Airport area over different timeframes, including before and after major terminal area improvements were implemented.

Furthermore, the records search conducted at the SCCIC did not identify any resources designated on the NRHP or the CRHR either on the Airport or immediately adjacent to the Airport. A review of the City of Newport Beach's *Historic Resources Element of the General Plan* did not identify any historic resources on the east side of Campus Drive, across from the Airport.

4.3.4 THRESHOLDS OF SIGNIFICANCE

In accordance with the County's Environmental Analysis Checklist and Appendix G of the CEQA Guidelines, the GAIP would result in a significant impact to cultural and scientific resources if it would:

- Threshold 4.3-1** Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- Threshold 4.3-2** Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- Threshold 4.3-3** Disturb any human remains, including those interred outside of dedicated cemeteries.
- Threshold 4.3-4** Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.

4.3.5 REGULATORY REQUIREMENTS AND STANDARD CONDITIONS OF APPROVAL

Implementation of the GAIP assumes compliance with existing regulations and the County's Standard Conditions of Approval related to the protection of cultural resources, as discussed under Section 4.3.1, Regulatory Setting, above. These include the regulatory requirement ("RR") and County of Orange Standard Conditions of Approval ("SC") listed below:

Regulatory Requirement

- RR CULT-1 Human Remains.** If human remains are encountered during ground-disturbing activities, Section 7050.5 of the *California Health and Safety Code* states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition of the materials pursuant to Section 5097.98 of the *California Public Resources Code*. The provisions of Section 15064.5 of the California Environmental Quality Act Guidelines shall also be followed. The

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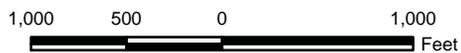


Aerial Source: John Wayne Airport

1970 Aerial Photograph of John Wayne Airport

Exhibit 4.3-1

John Wayne Airport General Aviation Improvement Program



County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner shall notify the Native American Heritage Commission (“NAHC”). The NAHC will determine and notify a Most Likely Descendent (“MLD”). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The descendent must complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. These requirements shall be included as notes on the contractor specification and verified by the OC Development Services Department, prior to issuance of grading permits.

Standard Conditions

SC CULT-1 Prior to the issuance of the first grading permit, the applicant shall provide written evidence to the Manager, Building and Safety, that applicant has retained a County-certified archaeologist, to observe grading activities and salvage and catalogue archaeological resources as necessary. The archaeologist shall be present at the pre-grade conference, shall establish procedures for archaeological resource surveillance, and shall establish, in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If the archaeological resources are found to be significant, the archaeological observer shall determine appropriate actions, in cooperation with the project applicant, for exploration and/or salvage.

Prior to the release of the grading bond the applicant shall obtain approval of the archaeologist’s follow-up report from the Manager, Building and Safety. The report shall include the period of inspection, an analysis of any artifacts found and the present repository of the artifacts. The archaeologist shall prepare excavated material to the point of identification. Applicant shall offer excavated finds for curatorial purposes to the County of Orange, or its designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the Manager, Building and Safety. Applicant shall pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials to the County of Orange or its designee, all in a manner meeting the approval of the Manager, Building and Safety. (County Standard Condition of Approval A02)

SC CULT-2 Prior to the issuance of the first grading permit, the project applicant shall provide written evidence to the Manager, Building and Safety, that applicant has retained a County certified paleontologist to observe grading activities and salvage and catalogue fossils as necessary. The paleontologist shall be present at the pre-grade conference, shall establish procedures for paleontological resource surveillance, and shall establish, in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of the fossils. If the paleontological resources are found to be significant, the

paleontologist shall determine appropriate actions, in cooperation with the applicant, to ensure proper exploration and/or salvage.

Prior to the release of the grading bond the applicant shall submit the paleontologist's follow up report for approval by the Manager, Building and Safety. The report shall include the period of inspection, a catalogue and analysis of the fossils found, and the present repository of the fossils. Applicant shall prepare excavated material to the point of identification, and offer excavated finds for curatorial purposes to the County of Orange, or its designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to approval by Manager, Building and Safety. Applicant shall pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials to the County of Orange or its designee, all in a manner meeting the approval of the Manager, Building and Safety (County Standard Condition of Approval A04)

4.3.6 IMPACT ANALYSIS

Both the Proposed Project and Alternative 1 would develop the same portion of the Airport site. Therefore, the potential impacts on cultural resources are the same with either development scenario. To avoid undue repetition the evaluation of both development scenarios have been combined into a single discussion for each of the thresholds.

Threshold 4.3-1

- ***Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?***

Proposed Project and Alternative 1

The results of the SCCIC-records search indicate that one previously recorded habitation site (CA-ORA-1223) has been identified within a half mile of the Airport; however, the archaeological site is not within the GAIP APE. Though few archaeological resources have been identified near the GAIP APE, and there is no record of significant archaeological resource within the area affected by the GAIP (Proposed Project or Alternative 1), there is always the possibility that undiscovered intact archaeological deposits may be present below the surface in native sediments, and may be subject to direct impact during construction activities. If the resource is not protected, there would be the potential of an adverse impact on an archaeological resource. Recognizing this potential, the County of Orange has identified standard conditions, which are applied to projects to minimize the potential for significant impacts. Implementing SC CULT-1 (identified in Section 4.3.5) requires a County-certified archaeologist to observe grading activities and salvage and catalogue archaeological resources, as necessary. Implementation of this requirement would allow the resource to be protected while it is evaluated and a treatment and data recovery program is developed, if warranted. Therefore, impacts would be reduced to a less than significant level.

Impact Conclusion: *The GAIP (Proposed Project and Alternative 1) has a low potential to cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. Should buried archaeological resources be discovered during grading, implementation of SC CULT-1 would reduce potential impacts to less than significant levels under Threshold 4.3-1.*

Threshold 4.3-2

- ***Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?***

Proposed Project and Alternative 1

The GAIP disturbance area is located in an entirely built environment; therefore, a paleontological field survey was not conducted. Similar to archaeological resources, there is a potential that ground-disturbing activities associated with construction of the Proposed Project or Alternative 1 would encounter previously unknown paleontological resources. This may result in a significant impact to paleontological resources; however, SC CULT-2 (identified in Section 4.3.5) requires that a County-certified Paleontologist be retained to observe grading activities. With implementation of this condition, impacts to paleontological resources would be less than significant.

The GAIP area is underlain by alluvium eroding from the Santa Ana Mountains. The late Pleistocene-early Holocene sediments are ubiquitous in the region, and they are not unique geologic features. The GAIP (Proposed Project and Alternative 1) would not impact any unique geological features. As no impacts would occur related to unique geologic features, no mitigation is required.

Impact Conclusion: *The GAIP (Proposed Project and Alternative 1) has a low potential to directly or indirectly destroy a unique paleontological resource or site; however, the geologic formations underlying site have moderate sensitivity. Implementation of SC CULT-2 would reduce potential impacts to less than significant should unknown buried resources be discovered as part of grading activities. Additionally, due to lack of unique geologic features on the site, no impacts to such features would occur and no mitigation is required. Impacts would be less than significant under Threshold 4.3-2.*

Threshold 4.3-3

- ***Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?***

Proposed Project and Alternative 1

Based on the results of the records search and literature review, human remains are not likely to be found within the GAIP APE. Due to the level of past disturbance on the Airport, project-related ground-disturbing activities are not expected to encounter human remains, including

those interred outside of dedicated cemeteries. This is true of both the Proposed Project and Alternative 1.

If human remains were found, those remains would require proper treatment, in accordance with applicable laws. Sections 7050.5–7055 of the *California Health and Safety Code* describe the general provisions for human remains. Specifically, Section 7050.5 of the *California Health and Safety Code* describes the protocols to be followed in the event that human remains are accidentally discovered during excavation of a site. In addition, the requirements and procedures set forth in Section 5097.98 of the *California Public Resources Code* would be implemented. If human remains are found during excavation, construction activities must stop in the vicinity of the find and in any area, that is reasonably suspected to overlie adjacent remains until the Coroner has been notified; the remains have been investigated; and appropriate recommendations have been made for the treatment and disposition of the remains. Following compliance with State regulations, which detail the appropriate actions necessary in the event human remains are encountered (refer to RR CULT-1, provided in Section 4.3.5), potential impacts would be less than significant.

Impact Conclusion: *GAIP activities (Proposed Project and Alternative 1) are not expected to disturb human remains. However, if human remains are encountered during grading activities, implementation of RR CULT-1 would reduce potential impacts to human remains to a less than significant level under Threshold 4.3-3.*

Threshold 4.3-4

- ***Would the Project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?***

Proposed Project and Alternative 1

The GAIP (Proposed Project and Alternative 1) would remove and replace most of the buildings currently used for general aviation.² Based on the 1970 aerial photograph (see Exhibit 4.3-1) the buildings on west side of the Airport are all less than 50 years old.³ A building less than 50 years old could be considered to have historic significance if it meets the Secretary of Interior's standards. These criteria include if the resource:

- (a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; or
- (b) Is associated with the lives of persons important in our past; or
- (c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

² The GAIP would not alter the Limited Service FBO Martin Aviation lease, which includes the Lyon Air Museum.

³ See the discussion in Section 4.3.3 under Historic Resources for an explanation of the use of 50 years for screening for potential historic resources.

(d) Has yielded, or may be likely to yield, information important in prehistory or history.

The architecture of the buildings on the west side of the Airport are utilitarian in nature, including hangars, office buildings, storage sheds, and shade structures. None of the above listed standards would apply to the buildings on the west side of the Airport.

The aerial photograph does indicate that several of the buildings on the east side of the Airport and across Campus Drive in the city of Newport Beach were built prior to 1970. Most notably are the rows of T-hangars adjacent to Campus Drive. An earlier aerial photograph was reviewed online which shows the T-hangars were not built in 1963 (historicaerials.com). A comparison of the 1970 aerial photograph and current images of the Airport on Google Earth shows several of the T-hangars along Campus Drive have been replaced or relocated over the years because the location of the hangars are slightly different—the hangars are currently located farther to the south than what is shown in the 1970 aerial photograph. A review of an aerial photograph from 1995 shows the replacement/relocation was completed by 1995; therefore, the relocation may have occurred with the construction of Airport Way at the time of the Terminal A and B improvements (completed in 1990). Based on the changes to the configuration of the other buildings on the east side of the Airport, the buildings shown in the 1970 aerial photograph have also been altered or replaced.

The T-hangars do not have any distinctive architecture or features; rather, they are similar to other structures on the Airport, utilitarian in form, and consistent with the design of hangars on other airports. None of the Secretary of Interior's criteria would apply to the buildings on the east side of the Airport.

The GAIP would not have any direct impact on the buildings located across Campus Drive. The record search and review of the City of Newport Beach *Historic Resources Element of the General Plan* does not identify any resources adjacent to the Airport as being listed on the federal, State, or local registers for historic resources. The buildings on Campus Drive are low-lying office and commercial buildings without distinctive architectural character. Additionally, a comparison of the 1970 aerial photograph to current conditions shows that a number of the buildings have been altered over the years.

Based on the above information, no impact on historic resources would occur with the GAIP (Proposed Project and Alternative 1).

Impact Conclusion: *GAIP activities (Proposed Project and Alternative 1) would have no impact on historic resources under Threshold 4.3-4.*

4.3.7 CUMULATIVE IMPACTS

Archaeological and paleontological resources impacts are site-specific with regard to any given resource. Impacts that may be considered cumulative simply relate to the loss of cultural resources in general over time throughout the region. As identified in the SCCIC records search and literature review, there is one archaeological resource (CA-ORA-1223) identified within the ½-mile search radius; however, the archaeological site is not within the GAIP APE and will not be affected from GAIP (Proposed Project and Alternative 1) related activities. Further, the Airport is located within a “moderate” paleontological sensitivity zone.

The GAIP (Proposed Project and Alternative 1), in conjunction with cumulative development, especially the regional growth that would include previously undeveloped land, could lead to accelerated degradation of previously unknown archaeological, and paleontological resources. The cumulative projects identified on the Airport (see Section 4.0 for a discussion of cumulative projects) are not expected to disturb unknown cultural resources because of the shallow depth of excavation. Each cumulative development proposal would undergo environmental review and would be subject to similar resource protection requirements as the GAIP. If there is a potential for significant impacts on archaeological or paleontological resources, an investigation would be required to determine the nature and extent of the resources and to identify appropriate mitigation measures, including requirements such as those identified in this section. The Standard Conditions of Approval applicable to the GAIP (Proposed Project and Alternative 1) include measures to identify, recover, and/or record any archaeological and paleontological resource that may occur within the GAIP limits. This requirement would reduce GAIP-related and cumulative impacts to less than significant impacts because it would provide for data recovery from any cultural resources identified as a result of GAIP (Proposed Project and Alternative 1) construction.

Discovery of human remains are also site-specific. Similar to archaeological and paleontological resources, all proposed developments would undergo the same resource protection and regulatory requirements in case of discovery of human remains. Therefore, the GAIP's (Proposed Project and Alternative 1) contribution to a cumulative impact associated with human remains would be reduced to a less than significant level with adherence to existing State law.

None of the cumulative projects were identified as having impacts on historic resources. Given that none of the cumulative projects or the GAIP (the Proposed Project and Alternative 1) would have impacts on historic resources, no cumulative impacts would occur.

Therefore, implementation of the GAIP (Proposed Project and Alternative 1) would not contribute to significant cumulative impacts associated with archaeological and paleontological resources, human remains or historic resources.

4.3.8 MITIGATION PROGRAM

With compliance with existing regulations and standard conditions of approval (RR CULT-1 and SC CULT-1 and SC CULT-2), no additional project specific mitigation measures are necessary.

4.3.9 LEVEL OF SIGNIFICANCE AFTER MITIGATION

GAIP-specific and cumulative impacts to archaeological and paleontological resources associated with the GAIP (Proposed Project and Alternative 1) would be less than significant with implementation of existing regulations and standard conditions of approval. No significant unavoidable impacts would occur.

4.3.10 REFERENCES

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