

7.8 CULTURAL RESOURCES

This chapter focuses on the impacts to cultural resources with the implementation of the alternatives carried forward for review under the Section 404(b)(1) Guidelines. Impacts to cultural resources attributable to USACE permit action depend on the physical relationship between the location of the cultural resource and the scope of analysis taken by the USACE. As part of the NEPA review, the USACE is analyzing impacts on the environment associated with projects that receive authorizations under Section 404 of the Clean Water Act.

7.8.1 THRESHOLDS OF SIGNIFICANCE

As addressed in Chapter 4.1.10, the federal government has developed laws and regulations designed to protect cultural resources that may be affected by actions undertaken, regulated, or funded by federal agencies. The National Historic Preservation Act (NHPA) of 1966 established the Advisory Council on Historic Preservation and State Historic Preservation Officers (SHPO) to assist federal and state officials regarding matters related to these resources. Section 106 of the Act requires federal agencies to consider the effects of an action on cultural resources (prehistoric and historic resources) in or eligible for listing in the National Register of Historic Places (NRHP). The administering agency, the Advisory Council on Historic Preservation, has authored regulations implementing Section 106 located in 36 Code of Federal Regulations (CFR) Part 800, *Protection of Historic Properties* (revised January 11, 2001).

The proposed SAMP permitting procedures are considered an undertaking, and therefore must comply with the NHPA. The NHPA regulations provide detailed procedures called the Section 106 process by which the assessment of impacts on archaeological and historical resources, as required by the Act, is implemented. NEPA addresses compliance with the NHPA; the required environmental documentation (whether it be an environmental assessment or an environmental impact statement) must discuss cultural resources.

In accordance with the NHPA, three steps are required for NHPA compliance: (1) identification of significant resources that may be affected by an undertaking, (2) assessment of project impacts on those resources, and (3) development and implementation of mitigation measures to offset or eliminate adverse impacts. All three steps require consultation with interested Native American Indian tribes, local governments, and other interested parties.

The consultation process is discussed in 36 CFR Part 800.3. Section 800.4 sets out the steps the lead agency must follow to identify historic properties. The NRHP eligibility determinations are discussed in 36 CFR Part 800.4(c)(1).

Cultural resources that are determined eligible for listing in the NRHP, along with SHPO concurrence, are termed "historic properties" under Section 106 and are afforded the same protection as sites listed in the NRHP.

7.8.1.1 Results of Identification and Evaluation

Results of literature searches, field surveys, and tribal consultation are coordinated with the SHPO staff. Regulations stipulate that when the lead agency finds that either there are no historic properties present or there are historic properties present but the undertaking would have no effect upon them, then the lead agency will make a "no historic properties affected" determination (36 CFR Part 800.4(d)). If the lead agency finds that there are historic properties which may be affected by the undertaking, the lead agency will make a "historic properties affected" determination.

7.8.1.2 Assessment of Adverse Effects

In accordance with 36 CFR Part 800.5 of the Advisory Council on Historic Preservation's implementing regulations (criteria of adverse effects) impacts on cultural resources are considered significant if one or more of the following conditions would result from implementation of the proposed action:

- (a) An undertaking has an effect** on a historic property when the undertaking may alter characteristics of the property that may qualify the property for inclusion in the NRHP. For the purpose of determining the type of effect, alteration to features of a property's location, setting, or use may be relevant depending on a property's significant characteristics and should be considered.

- (b) An undertaking is considered to have an adverse effect** when the effect on a historic property may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects on historic properties include, but are not limited to:
 - 1. Physical destruction, damage, or alteration of all or part of the property;
 - 2. Isolation of the property from or alteration of the character of the property's setting when that character contributes to the property's qualification for the NRHP;
 - 3. Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting;
 - 4. Neglect of a property resulting in its deterioration or destruction;
 - 5. Transfer, lease, or sale of the property.

7.8.2 SAMP PROPOSED PERMITTING PROCEDURES

7.8.2.1 Prehistoric and Historic Archaeological Resources Impacts

Impact

7.8.2-1: *Grading and construction activities future projects eligible for the proposed RGP and LOP procedures could impact NRHP-eligible/potentially eligible archaeological and historic sites.*

As discussed previously, the proposed RGP and LOP procedures have been developed for future participants and current participants in the SAMP. The future participants have not yet defined projects for permitting by the RGP or LOP procedures. For projects proposed by future participants that would be eligible for authorization by the maintenance RGP, impacts to cultural resources would be minimal. Such activities would be associated with small maintenance projects, resulting in temporary impacts to a small area located in a mostly degraded landscape. Within a degraded landscape, any cultural resource would have been impacted some time ago. Cultural resources are mainly affected when there is maintenance involving a historical structure greater than 50 years old. In such cases, the USACE is required to consult with SHPO to assess the eligibility of the structure for the National Register of Historic Places. However, for the most part, impacts are not expected under the RGP from these localized maintenance activities.

For projects eligible for authorization by the LOP procedures, not enough is known about the project size and location or potential impacts to analyze potential impacts to cultural resources. Such projects eligible for authorization by the LOP procedures would be subject to future NEPA review before a final permit decision can be made.

7.8.2.2 Mitigation Requirements

The following mitigation measure would be required by the USACE:

1. No activity that may affect historic properties listed, or eligible for listing, on the National Historic Register of Historic Places is authorized, until the U.S. Army Corps of Engineers (USACE) has complied with the National Historic Preservation Act. If the proposed activity may affect any historic properties listed, determined to be eligible, or may be eligible for listing on the National Register of Historic Places, the prospective permittee shall not begin the activity until notified by the USACE that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the State Office of Historic Preservation (SHPO) and the National Register of Historic Places.

7.8.2.3 Level of Significance After Mitigation

With implementation of the mitigation program, potential impacts to prehistoric archaeological and historic resources could be reduced to a level considered less than significant.

7.8.3 SMWD PROPOSED PROJECT

7.8.3.1 Prehistoric and Historic Archaeological Resources Impacts

Impact

7.8.3-1: *Grading and construction activities associated with the Upper Chiquita Reservoir would have the potential to impact NRHP-eligible/potentially eligible archaeological sites.*

The SMWD Proposed Project includes the proposed Upper Chiquita domestic water storage reservoir and ongoing operation and maintenance activities. The ongoing operational and maintenance activities are not expected to result in any new significant impacts to cultural resources. All operational and maintenance activities at existing SMWD facilities are assumed to involve no new development/construction activities.

With respect to the Upper Chiquita reservoir, the proposed reservoir site has not been subject to prior archaeological surveys. However, the site is located in an area known to contain archaeological resources (e.g., the RMV Planning Area) and therefore there is a potential for the presence of archaeological resources at the proposed reservoir site. Potential impacts to resources would be considered a significant impact.

7.8.3.2 Mitigation Program

The following identifies the standard measure that SMWD, as lead agency, applies to proposed water district projects that have the potential to impact prehistoric and historic archaeological resources. Additionally, USACE Mitigation Measure 1 would be applicable.

1. Prior to any significant ground-disturbing activity on the project site, Santa Margarita Water District or the contractor shall retain a SOPA (Society of Professional Archaeologists)-certified archaeologist to attend pre-grade meetings and to monitor grading activities. During grading activities, the archaeologist shall conduct limited monitoring to observe and retrieve any buried artifacts that may be uncovered. During construction, if cultural remains are encountered during grading, a SOPA-certified archaeologist shall be called to evaluate the finds, and develop and carry out a plan of mitigation. The archaeological monitor shall have the authority to temporarily divert or direct grading to allow time to evaluate any exposed prehistoric or historic material. Any recovered prehistoric and historic artifacts shall be offered, on a first right-of-refusal basis, to a repository with a retrievable collection system and an educational and research interest in the materials such as the Fowler Museum of Cultural History (UCLA) and California State University, Fullerton, or alternatively to the Pacific Coast Archaeological Society where collections are held locally.

7.8.3.3 Level of Significance After Mitigation

With implementation of the mitigation program, potential impacts to prehistoric archaeological and historic resources would be reduced to a level considered less than significant.

7.8.4 ALTERNATIVE B-10 MODIFIED

7.8.4.1 Prehistoric Archaeological Resources Impacts

Impact

7.8.4-1: *Grading and construction activities associated with the B-10 Modified Alternative would have a significant impact on the following NRHP-eligible/potentially eligible archaeological sites: CA-ORA-535, -656, -753, -754, -882, -997, -1043, -1048, -1121, -1222, -1134, -1136, -1137, -1138, -1449, -1556, -1559, -1560, and -1565.*

A significant impact would occur if grading and construction activities would result in a substantial adverse change in the significance of an archaeological resource listed or eligible for the NRHP or that has not been evaluated for the NRHP. To assess potential impacts, the limits of disturbance for Alternative B-10 Modified were overlain on the location of the identified archaeological resources to determine if this alternative would have an effect on the known sites. Under a worst-case scenario, it is assumed that any archaeological resources located within the development areas for Alternative B-10 Modified would be eliminated through grading and construction activities. However, the significance of the impact would be based upon whether the resource is listed or eligible for the NRHP or has not yet been evaluated for the NRHP and is therefore considered a significant resource. If a site is not in a development area, there would be no direct impact.

Implementation of Alternative B-10 Modified would directly impact 19 archaeological sites. As indicated in Table 7.8-1, 19 of the 53 sites in the RMV Planning Area are either eligible or potentially eligible for the NRHP. They are prehistoric sites: CA-ORA-535, -656, -753, -754, -882, -997, -1043, -1048, -1121, -1222, -1134, -1136, -1137, -1138, -1449, -1556, -1559, -1560, and -1565. Inclusive of these identified sites are sites that have not had their eligibility determined: CA-ORA-535, -753, -754, -1134, -1136, -1137, and -1138. Because the significance of these sites has not yet been determined, any impacts to these sites would be considered significant until proven otherwise.

**TABLE 7.8-1
ALTERNATIVE B-10 MODIFIED
ARCHAEOLOGICAL AND HISTORIC RESOURCES SIGNIFICANCE**

Watershed	Site Number	NRHP Eligible Criteria	Potential Significant Impact?^a
San Juan Watershed: Central San Juan and Trampas Canyon	Archaeological Resources		
	CA-ORA-653	Ineligible ^b	No
	CA-ORA-654	Ineligible ^b	No
	CA-ORA-655	Ineligible ^b	No
	CA-ORA-656	Yes (Criterion D)	Yes
	CA-ORA-657	Ineligible ^b	No
	CA-ORA-658	Ineligible ^b	No
	CA-ORA-1102	Not considered eligible ^c	No
	CA-ORA-1103	Not considered eligible ^c	No
	CA-ORA-1111	Ineligible ^b	No
	CA-ORA-1121	Yes (Criterion D) ^b	Yes
	CA-ORA-1122	Not considered eligible ^c	No
	CA-ORA-1123	Not considered eligible ^c	No
San Juan Watershed: Cañada Gobernadora (including Wagon Wheel and Sulfur Canyons)	Historic Resources		
	CA-ORA-29	Yes (Criteria B and D) ^b	Yes
San Juan Watershed: Cañada Chiquita and Narrow Canyon	Archaeological Resources		
	CA-ORA-1446	Ineligible ^b	No
	CA-ORA-1564	Ineligible ^b	No
	CA-ORA-1565	Yes (Criterion D) ^b	Yes
	CA-ORA-1566	Ineligible ^b	No
San Juan Watershed: Cañada Chiquita and Narrow Canyon	Archaeological Resources		
	CA-ORA-26	Not considered eligible ^c	No
	CA-ORA-27	Not considered eligible ^c	No
	CA-ORA-28	Ineligible	No
	CA-ORA-880	Not considered eligible ^c	No
	CA-ORA-881	Not considered eligible ^c	No
	CA-ORA-882	Yes (Criterion D)	Yes
	CA-ORA-902	Ineligible	No
	CA-ORA-997	Yes (Criterion D)	Yes
	CA-ORA-1043	Yes (Criterion D)	Yes
	CA-ORA-1048	Yes (Criterion D)	Yes
	CA-ORA-1049	Not considered eligible ^c	No
	CA-ORA-1050	Not considered eligible ^c	No
	CA-ORA-1105	Ineligible ^b	No
	CA-ORA-1106	Ineligible	No
	CA-ORA-1447	Not considered eligible ^c	No
	CA-ORA-1559	Yes (Criterion D) ^b	Yes
	CA-ORA-1560	Yes (Criterion D) ^b	Yes
	CA-ORA-1561	Ineligible ^b	No
	CA-ORA-1562	Ineligible ^b	No
CA-ORA-1563	Ineligible ^b	No	
San Juan Watershed: Cañada Chiquita and Narrow Canyon	Historic Resources		
	30-176631	Undetermined ^d	Yes

**TABLE 7.8-1 (Continued)
ALTERNATIVE B-10 MODIFIED
ARCHAEOLOGICAL AND HISTORIC RESOURCES SIGNIFICANCE**

Watershed	Site Number	NRHP Eligible Criteria	Potential Significant Impact? ^a
San Mateo Watershed: Gabino Canyon (including Airplane Canyon)	Archeological Resources		
	CA-ORA-535	Not determined	Yes
	CA-ORA-1134	Not determined	Yes
	CA-ORA-1135	Ineligible ^b	No
	CA-ORA-1136	Not determined	Yes
	CA-ORA-1137	Not determined	Yes
	CA-ORA-1138	Not determined	Yes
	CA-ORA-1553	Ineligible ^b	No
	CA-ORA-1557	Ineligible ^b	No
	Historic Resources		
30-176633	Not determined	Yes	
San Mateo Watershed: Cristianitos Canyon (including Blind Canyon)	Archeological Resources		
	CA-ORA-753	Not determined	Yes
	CA-ORA-754	Not determined	Yes
	CA-ORA-916	Not considered eligible ^c	No
	CA-ORA-921/-1127	Ineligible	No
	CA-ORA-1124	Ineligible ^b	No
	CA-ORA-1126/-1452	Ineligible	No
	CA-ORA-1184	Ineligible ^b	No
	CA-ORA-1222	Yes (Criterion D)	Yes
	CA-ORA-1449	Yes (Criterion D) ^b	Yes
	CA-ORA-1450	Ineligible ^b	No
	CA-ORA-1550	Ineligible ^b	No
	CA-ORA-1556	Yes (Criterion D) ^b	Yes
	CA-ORA-1573	Ineligible	No
San Mateo Watershed: Talega Canyon	Archeological Resources		
	RMV-15	Not considered eligible	No
	Historic Resources		
	30-176634	Yes (Criterion D) ^e	Yes
30-176635	Yes (Criterion D) ^e	Yes	
<p>a. All sites identified are within the proposed area of disturbance for Alternative B-10 Modified. b. Source: Office of Historic Preservation letter dated January 27, 2004. c. Source: Demcak, 2000. d. Eligibility of the site has not yet been determined by SHPO for listing on the NRHP. e. Eligibility of the site was determined by the USACE for listing on the NRHP.</p> <p>Source: Archaeological Resource Management Corporation, 2003, 2004.</p>			

For those sites determined not to be eligible for the NRHP, the sites were further evaluated to determine if they meet the criteria as a unique resource. A unique archaeological resource implies 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 one of the following criteria:

1. Contains information needed to answer important scientific questions and there is a demonstrable public interest in that information; or
2. Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or

3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

None of the sites not previously identified as eligible for the NRHP qualify as unique archaeological sites. Therefore, impacts to these remaining sites would not be considered significant.

The B-10 Modified Alternative assumes the continuation of cattle ranching in portions of canyons designated open space. In Planning Area 10, the only improvements would be a community trail connecting to the existing Ladera Ranch Community Trail and a segment of the Prima Deshecha Riding and Hiking Trail. Public access would be restricted by fencing along trail; trails would be sited away from any known archaeological resources with public access limited to the trails. Some water and wastewater facilities will be constructed to provide service to adjacent developments. These facilities would be sited to avoid all direct and indirect impacts to known resources.

Increased on-site population could result in increased pedestrian traffic into areas of the RMV Planning Area not proposed for development. The increased access to these portions of the RMV Planning Area could result in greater risks to cultural deposits associated with vandalism, inadvertent damage, and illegal collecting. However, because there would be limited access to these areas (trails would be fenced) and the location of known archaeological resources would not be public information, increased access into these areas would not result in significant impacts to resources.

7.8.4.2 Historic Resources Impacts

Impact

7.8.4-2: *Implementation of the B-10 Modified Alternative would have a significant impact on historic sites CA-ORA-29, 30-176631, 30-176633, 30-176634, and 30-176635, which have been determined to be eligible or potentially eligible for the NRHP.*

A historic resource located in the development areas of Alternative B-10 Modified is assumed to be significantly impacted by grading and construction activities if the site(s) cannot be avoided. As previously identified on Table 7.8-1, there are five historic sites which would be directly impacted through implementation of this alternative. They are CA-ORA-29, 30-176631, 30-176633, 30-176634, and 30-176635; impacts to these sites are considered significant. The eligibility of historic site 30-176633 and historic site 30-176631 has not been determined. Any impacts to these sites would be considered significant unless subsequent evaluation determines otherwise.

7.8.4.3 Mitigation Program

In conjunction with the approval of the GPA/ZC project, the County of Orange adopted a mitigation program to reduce the impacts associated with impacts on prehistoric and historic archaeological resources. These measures are listed below to provide the reader context of the mitigation program, although these measures would be implemented as part of the development project and would be the responsibility of the County of Orange for monitoring. As a part of the SAMP, USACE Mitigation Measure 1 would also be applicable (see subchapter 7.8.2.2).

Standard Conditions and Requirements

SC 4.11-1 Prior to the issuance of any grading permit, the applicant shall provide written evidence to the County or Orange Manager, Subdivision and Grading, 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, Harbors, Beaches & Parks HBP/Coastal and Historical Facilities. The report shall include the period of inspection, an analysis of any artifacts found and the present repository of the artifacts. Applicant 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, HBP/Coastal and Historical Facilities. Applicant shall pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisor, 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, HBP/Coastal and Historical Facilities. (County of Orange Standard Conditions of Approval, A04)

Mitigation Measures

- MM 4.11-1 Prior to the approval of final plans and specifications for the development of Area Plans, the project applicant shall prepare a Cultural Resources Management (CRM) Plan to address the presence of cultural resources, evaluate the significance of any resource finds, provide final mitigation and monitoring program recommendations, and determine proper retention or disposal of resources. The CRM Plan shall be reviewed and approved by the County Director of Planning in Consultation with the County Manager, Harbors, Beaches & Parks HBP/Coastal and Historical Facilities.
- MM 4.11-2 Based on the mitigation standards set forth in the California Environmental Act (CEQA) Guidelines §15126.4(b) and Public Resources Code §21083.2, prior to the approval Area Plans for the applicable planning areas, the applicant shall provide the County of Orange with evidence regarding the determination of eligibility of prehistoric sites CA-ORA-535, -753, -754, -1134, -1136, -1137, and -1138, and historic sites 30-176631 and -176633. Should a site(s) be deemed ineligible for listing on the National Register of Historic Places (NRHP) or California Register of Historic Places (CRHR), no further mitigation is required. Should a site(s) be deemed eligible, the County of Orange standard conditions and requirements and subsequent Mitigation Measure 4.11-3 shall apply.
- MM 4.11-3 As applicable, the following archaeological sites shall be mitigated to a less than significant level: CA-ORA-535, -656, -753, -754, -882, -997, -1043, -1048, -1121, -1222, -1134, -1136, -1137, -1138, -1449, -1556, -1559, -1560, and -1565 and historic sites CA-ORA-29, 30-176631, 30-176633, 30-176634, and 30-176635. Based on the mitigation standards set forth in the California Environmental Act

(CEQA) Guidelines §15126.4(b) and Public Resources Code §21083.2, mitigation shall be accomplished through implementation of one of the following mitigation options consistent with the Cultural Resources Management Plan:

- a. Relocation of grading boundaries/fuel modification zones to completely avoid disturbance to the site(s). Should the boundary relocation be infeasible, an archaeological monitor shall be present during grading and fuel modification brush clearance in the vicinity of archaeological resources (note: confidential archaeological mapping is on file at the County of Orange). Fencing or stakes shall be erected outside of the sites to visually depict the areas to be avoided during construction.
- b. Prior to grading in the vicinity of archaeological resources (note: confidential archaeological mapping is on file at the County of Orange), Phase I data recovery (salvage excavations) shall be conducted for these archaeological sites or any other sites within the potential impact area of development that cannot be avoided. The Phase III work shall provide sufficient scientific information to fully mitigate the impacts of development on these sites and be performed in accordance with standards of the State Office of Historic Preservation.

In accordance with California Health and Safety Code Section 7050.5, 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 has determined the appropriate treatment and disposition of the human remains. The County Coroner shall make such determination within two working days of notification of discovery. The County Coroner shall be notified within 24 hours of the discovery. If the County Coroner determines that the remains are or believed to be Native American, the County Coroner shall notify the Native American Heritage Commission in Sacramento within 24 hours. In accordance with California Public Resources Code Section 5097.98, the Native American Heritage Commission must immediately notify those persons it believes to be the most likely descended from the deceased Native American. The descendants shall complete their inspection within 24 hours of notification. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

7.8.4.4 Level of Significance After Mitigation

With implementation of the mitigation program, potential impacts to prehistoric archaeological and historic resources would be reduced to a level considered less than significant.

7.8.5 ALTERNATIVE B-12

7.8.5.1 Prehistoric Archaeological Resources Impacts

Impact

7.8.5-1: *Grading and construction activities associated with the B-12 Alternative would have a significant impact on the following NRHP-eligible/potentially eligible archaeological sites: CA-ORA-656, -753, -754, -882, -1043, -1048, -1121,-1137, -1144, -1185, -1222, -1449, -1556, -1559, -1560, and -1565.*

Implementation of Alternative B-12 would have fewer impacts to prehistoric archaeological resources than Alternative B-10 Modified. As indicated in Table 7.8-2, implementation of Alternative B-12 would directly impact 16 of the 53 archaeological sites that are either eligible or potentially eligible for the NRHP. They are prehistoric sites: CA-ORA-656, -753, -754, -882, -1043, -1048, -1137, -1121, -1144, -1185, -1222, -1449, -1556, -1559, -1560, and -1565. Inclusive of these identified sites are sites that have not had their eligibility determined: CA-ORA-535, -753, and -754. Because the significance of these sites has not yet been determined, any impacts to these sites would be considered significant until proven otherwise.

The B-12 Alternative assumes the continuation of cattle ranching in portions of canyons designated as open space. As with Alternative B-10 Modified, the only improvements would be a community trail connecting to the existing Ladera Ranch Community Trail and a segment of the Prima Deshecha Riding and Hiking Trail. Public access would be restricted by fencing along the trail; trails would be sited away from any known archaeological resources with public access limited to the trails. Some water and wastewater facilities will be constructed to provide service to adjacent developments. These facilities would be sited to avoid all direct and indirect impacts to known resources. Although increased access to these portions of the RMV Planning Area could result in greater risks to cultural deposits associated with vandalism, inadvertent damage, and illegal collecting, there would be limited access to these areas (trails would be fenced) and the location of known archaeological resources would not be public information. Therefore, increased access into these areas would not result in significant impacts to resources.

7.8.5.2 Historic Resources Impacts

Impact

7.8.5-2: *Implementation of Alternative B-12 would have a significant impact on historic sites CA-ORA-29, 30-176631, 30-176633, 30-176634, and 30-176635, which have been determined to be eligible or potentially eligible for the NRHP.*

As previously identified on Table 7.8-2, five historic sites would be directly impacted through implementation. They are CA-ORA-29, 30-176631, 30-176633, 30-176634, and 30-176635; impacts to these sites are considered significant.

**TABLE 7.8-2
ALTERNATIVE B-12
ARCHAEOLOGICAL AND HISTORIC RESOURCES SIGNIFICANCE**

Watershed	Site Number	NRHP Eligible Criteria	Potential Significant Impact?^a
San Juan Watershed: Central San Juan and Trampas Canyon	Archaeological Resources		
	CA-ORA-653	Ineligible ^b	No
	CA-ORA-654	Ineligible ^b	No
	CA-ORA-655	Ineligible ^b	No
	CA-ORA-656	Yes (Criterion D)	Yes
	CA-ORA-657	Ineligible ^b	No
	CA-ORA-658	Ineligible ^b	No
	CA-ORA-1102	Not considered eligible ^c	No
	CA-ORA-1103	Not considered eligible ^c	No
	CA-ORA-1111	Ineligible ^b	No
	CA-ORA-1121	Yes (Criterion D) ^b	Yes
	CA-ORA-1122	Not considered eligible ^c	No
	CA-ORA-1123	Not considered eligible ^c	No
	Historic Resources		
CA-ORA-29	Yes (Criteria B and D) ^b	Yes	
San Juan Watershed: Cañada Gobernadora (including Wagon Wheel and Sulfur Canyons)	Archaeological Resources		
	CA-ORA-1446	Ineligible ^b	No
	CA-ORA-1565	Yes (Criterion D) ^b	Yes
	CA-ORA-1566	Ineligible ^b	No
San Juan Watershed: Cañada Chiquita and Narrow Canyon	Archaeological Resources		
	CA-ORA-26	Not considered eligible ^c	No
	CA-ORA-27	Not considered eligible ^c	No
	CA-ORA-28	Ineligible	No
	CA-ORA-880	Not considered eligible ^c	No
	CA-ORA-881	Not considered eligible ^c	No
	CA-ORA-882	Yes (Criterion D)	Yes
	CA-ORA-902	Ineligible	No
	CA-ORA-1043	Yes (Criterion D)	Yes
	CA-ORA-1048	Yes (Criterion D)	Yes
	CA-ORA-1049	Not considered eligible ^c	No
	CA-ORA-1050	Not considered eligible ^c	No
	CA-ORA-1106	Ineligible ^b	No
	CA-ORA-1137	Undetermined	Yes
	CA-ORA-1144	Undetermined	Yes
	CA-ORA-1559	Yes (Criterion D) ^b	Yes
	CA-ORA-1560	Yes (Criterion D) ^b	Yes
	CA-ORA-1563	Ineligible ^b	No
	Historic Resources		
	30-176631	Undetermined ^d	Yes

**TABLE 7.8-2 (Continued)
ALTERNATIVE B-12
ARCHAEOLOGICAL AND HISTORIC RESOURCES SIGNIFICANCE**

Watershed	Site Number	NRHP Eligible Criteria	Potential Significant Impact? ^a
San Mateo Watershed: Gabino Canyon (including Airplane Canyon and Verdugo)	Historic Resources		
	30-176633	Not determined	Yes
San Mateo Watershed: Cristianitos Canyon (including Blind Canyon)	Archaeological Resources		
	CA-ORA-753	Not determined	Yes
	CA-ORA-754	Not determined	Yes
	CA-ORA-916	Not considered eligible ^c	No
	CA-ORA-1124	Ineligible ^b	No
	CA-ORA-1184	Ineligible ^b	No
	CA-ORA-1185	Not determined	Yes
	CA-ORA-1222	Yes (Criterion D)	Yes
	CA-ORA-1449	Yes (Criterion D) ^b	Yes
	CA-ORA-1450	Ineligible ^b	No
	CA-ORA-1550	Ineligible ^b	No
	CA-ORA-1556	Yes (Criterion D) ^b	Yes^e
	CA-ORA-1573	Ineligible	No
San Mateo Watershed: Talega Canyon	Historic Resources		
	30-176634	Yes (Criterion D) ^e	Yes^e
	30-176635	Yes (Criterion D) ^e	Yes^e
<p>a. All sites identified are within the proposed area of disturbance for Alternative B-12. b. Source: Office of Historic Preservation letter dated January 27, 2004. c. Source: Demcak, 2000. d. Eligibility of the site has not yet been determined by SHPO for listing on the NRHP. e. Eligibility of the site was determined by the USACE for listing on the NRHP. f. Dependent on the final development plan for Planning Areas 4 and 8, the two sites identified may be avoided. This analysis represents a worst-case assessment of potential impacts.</p> <p>Source: Archaeological Resource Management Corporation, 2003, 2004; EDAW, 2005.</p>			

7.8.5.3 Mitigation Program

The mitigation program adopted by the County of Orange in conjunction with the approval of the GPA/ZC project would apply to Alternative B-12 (see subchapter 7.8.4.3, above). Mitigation Measures MM 4.11-2 and MM 4.11-3 have been modified and therefore are stated below. As with Alternative B-10 Modified, these measures would be implemented as part of the development project and would be the responsibility of the County of Orange for monitoring. As a part of the SAMP, USACE Mitigation Measure 1 would also be applicable (see subchapter 7.8.2.2).

Mitigation Measures

MM 4.11-2 Based on the mitigation standards set forth in the California Environmental Act (CEQA) Guidelines §15126.4(b) and Public Resources Code §21083.2, prior to the approval Area Plans for the applicable planning areas, the applicant shall

provide the County of Orange with evidence regarding the determination of eligibility of prehistoric sites CA-ORA-753, -754, -1137, -1144, and -1185. Should a site(s) be deemed ineligible for listing on the National Register of Historic Places (NRHP) or California Register of Historic Places (CRHR), no further mitigation is required. Should a site(s) be deemed eligible, the County of Orange standard conditions and requirements and subsequent Mitigation Measure 4.11-3 shall apply.

MM 4.11-3 As applicable, the following archaeological sites shall be mitigated to a less than significant level: CA-ORA-656, -753, -754, -882, -1043, -1048, -1137, -1144, -1185, -1121, -1137, -1144, -1185, -1222, -1449, -1556, -1559, -1560, and -1565 and historic sites CA-ORA-29, 30-176631, 30-176633, 30-176634, and 30-176635. Based on the mitigation standards set forth in the California Environmental Act (CEQA) Guidelines §15126.4(b) and Public Resources Code §21083.2, mitigation shall be accomplished through implementation of one of the following mitigation options consistent with the Cultural Resources Management Plan:

- a. Relocation of grading boundaries/fuel modification zones to completely avoid disturbance to the site(s). Should the boundary relocation be infeasible, an archaeological monitor shall be present during grading and fuel modification brush clearance in the vicinity of archaeological resources (note: confidential archaeological mapping is on file at the County of Orange). Fencing or stakes shall be erected outside of the sites to visually depict the areas to be avoided during construction.
- b. Prior to grading in the vicinity of archaeological resources (note: confidential archaeological mapping is on file at the County of Orange), Phase I data recovery (salvage excavations) shall be conducted for these archaeological sites or any other sites within the potential impact area of development that cannot be avoided. The Phase III work shall provide sufficient scientific information to fully mitigate the impacts of development on these sites and be performed in accordance with standards of the State Office of Historic Preservation.

In accordance with California Health and Safety Code Section 7050.5, 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 has determined the appropriate treatment and disposition of the human remains. The County Coroner shall make such determination within two working days of notification of discovery. The County Coroner shall be notified within 24 hours of the discovery. If the County Coroner determines that the remains are or believed to be Native American, the County Coroner shall notify the Native American Heritage Commission in Sacramento within 24 hours. In accordance with California Public Resources Code Section 5097.98, the Native American Heritage Commission must immediately notify those persons it believes to be the most likely descended from the deceased Native American. The descendants shall complete their inspection within 24 hours of notification. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

7.8.5.4 Level of Significance After Mitigation

With implementation of the mitigation program, potential impacts to prehistoric archaeological and historic resources would be reduced to a level considered less than significant.

7.8.6 ALTERNATIVE A-4

7.8.6.1 Prehistoric Archaeological Resources Impacts

Impact

7.8.6-1: *Grading and construction activities associated with Alternative A-4 would have a significant impact on the following NRHP-eligible/potentially eligible archaeological sites: CA-ORA-535, -656, -753, -754, -882, -997, -1043, -1048, -121, -1222, -1134, -1136, -1137, -1138, -1449, -1556, -1559, -1560, and -1565.*

Alternative A-4 assumes the same amount of development within the same footprint as Alternative B-10 Modified. Under this alternative, a NCCP/MsAA/HCP or SAMP would not be prepared and permitting would proceed with incremental project-by-project review of new development proposals within the RMV Planning Area. Future development would be subject to incremental project-by-project application of state and federal regulatory program requirements and would be required to minimize impacts on threatened and endangered species at the project level. Alternative A-4 would have the same cultural resource impacts as Alternative B-10 Modified. Implementation of this alternative would have significant impacts to archaeological sites: CA-ORA-535, -656, -753, -754, -882, -997, -1043, -1048, -1121, -1222, -1134, -1136, -1137, -1138, -1449, -1556, -1559, -1560, and -1565.

The A-4 Alternative assumes the continuation of cattle ranching in portions of canyons designated as open space. As with Alternative B-10 Modified, the only improvements would be a community trail connecting to the existing Ladera Ranch Community Trail and a segment of the Prima Deshecha Riding and Hiking Trail. Public access would be restricted by fencing along the trail; trails would be sited away from any known archaeological resources with public access limited to the trails. Some water and wastewater facilities will be constructed to provide service to adjacent developments. These facilities would be sited to avoid all direct and indirect impacts to known resources. Although increased access to these portions of the RMV Planning Area could result in greater risks to cultural deposits associated with vandalism, inadvertent damage, and illegal collecting, there would be limited access to these areas (trails would be fenced) and the location of known archaeological resources would not be public information. Therefore, increased access into these areas would not result in significant impacts to resources.

7.8.6.2 Historic Resources Impacts

Impact

7.8.6-2: *Implementation of Alternative A-4 would have a significant impact on historic sites CA-ORA-29, 30-176631, 30-176633, 30-176634, and 30-176635, which have been determined to be eligible or potentially eligible for the NRHP.*

As with Alternative B-10 Modified and Alternative B-12, implementation of Alternative A-4 would directly impact five historic sites: CA-ORA-29, 30-176631, 30-176633, 30-176634, and 30-176635. Any impacts to these sites would be considered significant.

7.8.6.3 Mitigation Program

The mitigation program identified for Alternative B-10 Modified (see subchapter 7.8.4.3) would also apply to Alternative A-4. USACE Mitigation Measure 1 would not be applicable to Alternative A-4 because this alternative does not assume a SAMP.

7.8.6.4 Level of Significance After Mitigation

With implementation of the mitigation program, potential impacts to prehistoric archaeological and historic resources would be reduced to a level considered less than significant.

7.8.7 ALTERNATIVE A-5

Implementation of Alternative A-5 assumes development would occur on approximately 8,000 acres (35 percent) with approximately 14,824 acres (65 percent) of the RMV Planning Area in open space. This alternative assumes up to 3,000 dwelling units. New development would avoid impacts to wetlands regulated under state and federal laws/regulations. Non-wetland Waters of the U.S. regulated by the USACE under Section 404 and non-wetland jurisdictional areas regulated by the state under Sections 1601/1603 would be avoided. To ensure total avoidance of state and federal threatened/endangered species, new development would be limited to those portions of RMV Planning Area that are not occupied by state or federally listed species, and for regulated waters, access would be dependent on existing arterial highways and the ranch road network (i.e., the existing dirt/gravel roads) with surfacing limited to existing road widths.

7.8.7.1 Prehistoric Archaeological Resources Impacts

Impact

7.8.7-1: *Grading and construction activities associated with the A-5 Alternative would have a significant impact on the following NRHP-eligible/potentially eligible archaeological sites: CA-ORA-753, -754, -882, -997, -1043, -1048, -1121, -1134, -1222, -1555, -1556, -1559, -1560, and -1565.*

Implementation of Alternative A-5 would have fewer impacts to prehistoric archaeological resources when compared to the other alternatives. As indicated in Table 7.8-3, implementation of Alternative A-5 would directly impact 14 of the 53 archaeological sites that are either eligible or potentially eligible for the NRHP. They are prehistoric sites: CA-ORA-753, -754, -882, -997, -1043, -1048, -1121, -1134, -1222, -1555, -1556, -1559, -1560, and -1565. Where the significance of a site has not yet been determined, any impacts to the site would be considered significant until proven otherwise.

As with the other alternatives, the continuation of cattle ranching in those portions of the canyons designated as open space. As with Alternative B-10 Modified, the only improvements would be a community trail connecting to the existing Ladera Ranch Community Trail and a segment of the Prima Deshecha Riding and Hiking Trail. Public access would be restricted by fencing along the trails; trails would be sited away from any known archaeological resources with public access limited to the trails. Some water and wastewater facilities will be constructed to provide service to adjacent developments. These facilities would be sited to avoid all direct and indirect impacts to known resources. Although increased access to these portions of the RMV Planning Area could result in greater risks to cultural deposits associated with vandalism, inadvertent damage, and illegal collecting, there would be limited access to these areas (trails would be fenced) and the location of known archaeological resources would not be public

information. Therefore, increased access into these areas would not result in significant impacts to resources.

**TABLE 7.8-3
ALTERNATIVE A-5
ARCHAEOLOGICAL AND HISTORIC RESOURCES SIGNIFICANCE**

Watershed	Site Number	NRHP Eligible Criteria	Potential Significant Impact? ^a
San Juan Watershed: Central San Juan and Trampas Canyon	Archaeological Resources		
	CA-ORA-653	Ineligible ^b	No
	CA-ORA-654	Ineligible ^b	No
	CA-ORA-655	Ineligible ^b	No
	CA-ORA-657	Ineligible ^b	No
	CA-ORA-658	Ineligible ^b	No
	CA-ORA-1102	Not considered eligible ^c	No
	CA-ORA-1121	Yes (Criterion D) ^b	Yes
	CA-ORA-1122	Not considered eligible ^c	No
	CA-ORA-1123	Not considered eligible ^c	No
	CA-ORA-1555	Yes (Criterion D) ^b	Yes
San Juan Watershed: Cañada Gobernadora (including Wagon Wheel and Sulfur Canyons)	Archaeological Resources		
	CA-ORA-1446	Ineligible ^b	No
San Juan Watershed: Cañada Chiquita and Narrow Canyon	CA-ORA-1565	Yes (Criterion D) ^b	Yes
	CA-ORA-1566	Ineligible ^b	No
	Archaeological Resources		
	CA-ORA-26	Not considered eligible ^c	No
	CA-ORA-27	Not considered eligible ^c	No
	CA-ORA-880	Not considered eligible ^c	No
	CA-ORA-881	Not considered eligible ^c	No
	CA-ORA-882	Yes (Criterion D)	Yes
	CA-ORA-902	Ineligible	No
	CA-OR-997	Yes (Criterion D)	Yes
	CA-ORA-1043	Yes (Criterion D)	Yes
	CA-ORA-1048	Yes (Criterion D)	Yes
	CA-ORA-1049	Not considered eligible ^c	No
	CA-ORA-1050	Not considered eligible ^c	No
	CA-ORA-1105	Ineligible ^b	No
	CA-ORA-1106	Ineligible	No
	CA-ORA-1447	Not considered eligible ^c	No
	CA-ORA-1559	Yes (Criterion D) ^b	Yes
	CA-ORA-1560	Yes (Criterion D) ^b	Yes
	CA-ORA-1562	Ineligible ^b	No
CA-ORA-1563	Ineligible ^b	No	
Historic Resources	Historic Resources		
	30-176631	Not determined ^d	Yes

**TABLE 7.8-3 (Continued)
ALTERNATIVE A-5
ARCHAEOLOGICAL AND HISTORIC RESOURCES SIGNIFICANCE**

Watershed	Site Number	NRHP Eligible Criteria	Potential Significant Impact? ^a
San Mateo Watershed: Gabino Canyon (including Airplane Canyon and Verdugo)	Archeological Resources		
	CA-ORA-1134	Not determined ^d	Yes
	Historic Resources		
	30-176633	Not determined	Yes
San Mateo Watershed: Cristianitos Canyon (including Blind Canyon)	Archeological Resources		
	CA-ORA-753	Not determined	Yes
	CA-ORA-754	Not determined	Yes
	CA-ORA-1124	Ineligible ^b	No
	CA-ORA-1184	Ineligible ^b	No
	CA-ORA-1222	Yes (Criterion D)	Yes
	CA-ORA-1450	Ineligible ^b	No
	CA-ORA-1550	Ineligible ^b	No
San Mateo Watershed: Talega Canyon	CA-ORA-1556	Yes (Criterion D) ^b	Yes
	CA-ORA-1573	Ineligible	No
San Mateo Watershed: Talega Canyon	Archeological Resources		
	RMV-15	Not considered eligible	No

a. All sites identified are within the proposed area of disturbance for Alternative A-5.
b. Source: Office of Historic Preservation letter dated January 27, 2004.
c. Source: Demcak, 2000.
d. Eligibility of the site has not yet been determined by SHPO for listing on the NRHP.
e. Eligibility of the site was determined by the USACE for listing on the NRHP.

Source: Archaeological Resource Management Corporation, 2003, 2004; EDAW, 2005.

7.8.7.2 Historic Resources Impacts

Impact

7.8.7-2: *Implementation of Alternative A-5 would have a significant impact on historic sites CA-ORA-29, 30-176631, and 30-176633 which have been determined to be eligible or potentially eligible for the NRHP.*

As previously identified on Table 7.8-3, three historic sites would be directly impacted through implementation. They are CA-ORA-29, 30-176631, and 30-176633; impacts to these sites are considered significant.

7.8.7.3 Mitigation Program

The mitigation program adopted by the County of Orange in conjunction with the approval of the GPA/ZC project would apply to Alternative A-5 (see subchapter 7.8.2.3, above). Because Mitigation Measures MM 4.11-2 and MM 4.11-3 have been modified, they are provided below. As with Alternative B-10 Modified, these measures would be implemented as part of the development project and would be the responsibility of the County of Orange for monitoring. USACE Mitigation Measure 1 would not be applicable to Alternative A-5 because new development would avoid impacts to wetlands regulated under state and federal laws/regulations. Non-wetland Waters of the U.S. regulated by the USACE under Section 404 and non-wetland jurisdictional areas regulated by the state under Section 1600 et al. would be avoided.

Mitigation Measures

MM 4.11-2 Based on the mitigation standards set forth in the California Environmental Act (CEQA) Guidelines §15126.4(b) and Public Resources Code §21083.2, prior to the approval Area Plans for the applicable planning areas, the applicant shall provide the County of Orange with evidence regarding the determination of eligibility of prehistoric sites CA-ORA-753, -754, and -1134. Should a site(s) be deemed ineligible for listing on the National Register of Historic Places (NRHP) or California Register of Historic Places (CRHR), no further mitigation is required. Should a site(s) be deemed eligible, the County of Orange standard conditions and requirements and subsequent Mitigation Measure 4.11-3 shall apply.

MM 4.11-3 As applicable, the following archaeological sites shall be mitigated to a less than significant level: CA-ORA-753, -754, -882, -997, -1043, -1048, -1121, -1134, -1222, -1555, -1556, -1559, -1560, and -1565 and historic sites CA-ORA-29, 30-176631, and 30-176633. Based on the mitigation standards set forth in the California Environmental Act (CEQA) Guidelines §15126.4(b) and Public Resources Code §21083.2, mitigation shall be accomplished through implementation of one of the following mitigation options consistent with the Cultural Resources Management Plan:

- a. Relocation of grading boundaries/fuel modification zones to completely avoid disturbance to the site(s). Should the boundary relocation be infeasible, an archaeological monitor shall be present during grading and fuel modification brush clearance in the vicinity of archaeological resources (note: confidential archaeological mapping is on file at the County of Orange). Fencing or stakes shall be erected outside of the sites to visually depict the areas to be avoided during construction.
- b. Prior to grading in the vicinity of archaeological resources (note: confidential archaeological mapping is on file at the County of Orange), Phase I data recovery (salvage excavations) shall be conducted for these archaeological sites or any other sites within the potential impact area of development that cannot be avoided. The Phase III work shall provide sufficient scientific information to fully mitigate the impacts of development on these sites and be performed in accordance with standards of the State Office of Historic Preservation.

In accordance with California Health and Safety Code Section 7050.5, 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 has determined the appropriate treatment and disposition of the human remains. The County Coroner shall make such determination within two working days of notification of discovery. The County Coroner shall be notified within 24 hours of the discovery. If the County Coroner determines that the remains are or believed to be Native American, the County Coroner shall notify the Native American Heritage Commission in Sacramento within 24 hours. In accordance with California Public Resources Code Section 5097.98, the Native American Heritage Commission must immediately notify those persons it believes to be the most likely descended from the deceased Native American. The descendants shall complete their inspection within 24 hours of notification.

The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

7.8.7.4 Level of Significance After Mitigation

With implementation of the mitigation program, potential impacts to prehistoric archaeological and historic resources would be reduced to a level considered less than significant.