

Section 4.11

Cultural Resources

Introduction

This section describes recent changes to the existing environmental conditions and regulatory setting of the Project area, summarizes the unchanged affected environment, and describes changed environmental effects related to cultural resources for the Project. This section contains a review and update of the 1995 DEIR/EIS cultural resources impact assessment, incorporated by reference in the 2001 FEIR. The cultural resources impacts of the Project were analyzed most recently in the 2001 FEIS, which also served as a basis for this analysis.

The 2001 FEIR and 2001 FEIS concluded that the Project alternatives would affect cultural resources on and in the vicinity of the four Project islands. Since that time, there have been minor changes in the affected environment and regulatory setting. However, there have been no changes in the Project that result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects on cultural resources.

The 2001 FEIR and 2001 FEIS Cultural Resources analysis is updated to reflect current environmental conditions on and around the Project islands. The section includes expanded discussion of the importance of Piper soils, resources newly identified as California Register of Historical Resources (CRHR)-eligible, and changes in methods and circumstances since the 2001 FEIR and 2001 FEIS.

The Project will not have any direct effects on cultural resources in the places of use; the effects on cultural resources, if any, associated with the provision of Project water to the places of use are addressed in Chapter 5, "Cumulative Impacts," and Chapter 6, "Growth-Inducing Impacts."

Summary of Impacts

Table 4.11-1 provides a summary and comparison of the impacts and mitigation measures from the 2001 FEIR, 2001 FEIS, and this Place of Use EIR.

Table 4.11-1. Comparison between Delta Wetlands Project 2010 Place of Use EIR and 2001 FEIR and 2001 FEIS Impacts and Mitigation Measures for Cultural Resources

2001 FEIR and 2001 FEIS Impacts and Mitigation Measures	Differences between 2010 Place of Use EIR and 2001 FEIR and 2001 FEIS Impacts and Mitigation Measures
Alternatives 1 and 2	
Impact M-1: Disturbance of Buried Resources (If Present) in the Archaeologically Sensitive Piper Sands on Webb Tract (LTS-M)	Impact CUL-2: Disturbance to Archaeological Remains as a Result of Compaction, Inundation, Wave-Induced Erosion, or Habitat Development and Management (LTS-M)
Mitigation Measure M-1: Prepare an HPMP to Provide for the Long-Term Monitoring and Treatment of Archaeologically Sensitive Areas on Webb Tract	Mitigation Measure CUL-MM-1: Prepare and Implement a Historic Properties Treatment Plan The HPTP will include the following component in addition to those described for Impact CUL-1:
	Mitigation Measure CUL-MM-1e: Provide Methods and Guidance for Subsurface Testing in the Form of Remote Sensing and Excavation
Impact M-2: Disturbance of Intact Burials at CA-CCo-593 (If Present) on Holland Tract (LTS-M)	Impact CUL-3: Disturbance to Human Remains from Compaction as a Result of Inundation, Wave-Induced Erosion, Habitat Development and Management, or Vandalism (SU)
Mitigation Measure M-2: Design Habitat Management and Enhancement Activities to Prevent Disturbance of CA-CCo-593 on Holland Tract	Mitigation Measure CUL-MM-1: Prepare and Implement a Historic Properties Treatment Plan The HPTP will include the following component in addition to those described for Impact CUL-1:
	Mitigation Measure CUL-MM-1f: Negotiate, Prepare, and Implement a Preburial Agreement with the Most Likely Descendant (as Determined by the Native American Heritage Commission) of Potential Native American Interments Located in Webb Tract Piper Sands in the Project Area
Impact M-3: Disturbance of Intact Burials in CA-CCo-593 (If Present) Resulting from Vandalism on Holland Tract (LTS-M)	Impact CUL-3: Disturbance to Human Remains from Compaction as a Result of Inundation, Wave-Induced Erosion, Habitat Development and Management, or Vandalism (SU)
Mitigation Measure M-3: Prepare an HPMP to Address Disturbance of Human Remains at CA-CCo-593 on Holland Tract	Mitigation Measure CUL-MM-1: Prepare and Implement a Historic Properties Treatment Plan The HPTP will include the following component in addition to those described for Impact CUL-1:
	Mitigation Measure CUL-MM-1f: Negotiate, Prepare, and Implement a Preburial Agreement with the Most Likely Descendant (as Determined by the Native American Heritage Commission) of Potential Native American Interments Located in Webb Tract Piper Sands in the Project Area

2001 FEIR and 2001 FEIS Impacts and Mitigation Measures	Differences between 2010 Place of Use EIR and 2001 FEIR and 2001 FEIS Impacts and Mitigation Measures
<p>Impact M-4: Disturbance of Buried Resources (If Present) in the Archaeologically Sensitive Piper Sands on Holland Tract (LTS-M)</p> <p>Mitigation Measure M-4: Prepare an HPMP to Provide for the Long-Term Monitoring and Treatment of Archaeologically Sensitive Areas on Holland Tract</p>	<p>Impact CUL-2: Disturbance to Archaeological Remains as a Result of Compaction, Inundation, Wave-Induced Erosion, or Habitat Development and Management (LTS-M)</p> <p>Mitigation Measure CUL-MM-1: Prepare and Implement a Historic Properties Treatment Plan The HPTP will include the following component in addition to those described for Impact CUL-1:</p> <p>Mitigation Measure CUL-MM-1e: Provide Methods and Guidance for Subsurface Testing in the Form of Remote Sensing and Excavation</p>
<p>Impact M-5: Demolition of the NRHP-Eligible Historic District on Bacon Island (SU)</p> <p>Mitigation Measure M-5: Prepare an HPMP and a Data Recovery Plan for Archaeological Deposits on Bacon Island</p> <p>Mitigation Measure M-6: Prepare a Videotape of Public Broadcasting System Quality of the NRHP-Eligible Historic District on Bacon Island</p> <p>Mitigation Measure M-7: Prepare a Popular Publication on Bacon Island Resources for Use by Museums, Cultural Centers, and Schools</p> <p>Mitigation Measure M-8: Complete Historic American Building Survey/Historic American Engineering Record Forms, Including Photographic Documentation, That Preserve Information about the NRHP-Eligible District on Bacon Island</p>	<p>Impact CUL-1: Destruction of Buildings and Structures from Demolition on Bacon Island (LTS-M)</p> <p>Mitigation Measure CUL-MM-1: Prepare and Implement a Historic Properties Treatment Plan</p> <p>Mitigation Measure CUL-MM-1a: Complete Historic Research, Measured Drawings, and Photographic Documentation of the Bacon Island Rural Historic District</p> <p>Mitigation Measure CUL-MM-1b: Prepare and Implement an Archaeological Resources Data Recovery Plan</p> <p>Mitigation Measure CUL-MM-1c: Produce a Publication to Disseminate Historical Information regarding the Bacon Island Rural Historic District to the Public</p> <p>Mitigation Measure CUL-MM-1d: Prepare a Video That Disseminates Historical Information and Explains the Character-Defining Features of the Bacon Island Rural Historic District to the Public</p>
<p>Impact M-6: Disturbance of Archaeological Site CA-SJo-208H on Bouldin Island (LTS-M)</p> <p>Mitigation Measure M-9: Prepare an HPMP and a Data Recovery Plan for Archaeological Deposits on Bouldin Island</p>	<p>Impact CUL-2: Disturbance to Archaeological Remains as a Result of Compaction, Inundation, Wave-Induced Erosion, or Habitat Development and Management (LTS-M)</p> <p>Mitigation Measure CUL-MM-1: Prepare and Implement a Historic Properties Treatment Plan The HPTP will include the following component in addition to those described for Impact CUL-1:</p> <p>Mitigation Measure CUL-MM-1e: Provide Methods and Guidance for Subsurface Testing in the Form of Remote Sensing and Excavation</p>

2001 FEIR and 2001 FEIS Impacts and Mitigation Measures	Differences between 2010 Place of Use EIR and 2001 FEIR and 2001 FEIS Impacts and Mitigation Measures
Alternative 3	
<p>Impact M-7: Disturbance of Buried Resources (If Present) in the Archaeologically Sensitive Piper Sands on Webb Tract (LTS-M)</p> <p>Mitigation Measure M-1: Prepare an HPMP to Provide for the Long-Term Monitoring and Treatment of Archaeologically Sensitive Areas on Webb Tract.</p>	<p>Impact CUL-2: Disturbance to Archaeological Remains as a Result of Compaction, Inundation, Wave-Induced Erosion, or Habitat Development and Management (LTS-M)</p> <p>Mitigation Measure CUL-MM-1: Prepare and Implement a Historic Properties Treatment Plan</p> <p>The HPTP will include the following components in addition to those described for Impact CUL-1:</p> <p>Mitigation Measure CUL-MM-1e: Provide Methods and Guidance for Subsurface Testing in the Form of Remote Sensing and Excavation</p> <p>Mitigation Measure CUL-MM-1g: Prepare and Implement an Archaeological Resources Data Recovery Plan for Site-Specific Resources</p>
<p>Impact M-8: Damage or Destruction of Known Archaeological Sites Resulting from Inundation, Wave Action and Erosion, or Vandalism on Holland Tract (SU)</p> <p>Mitigation Measure M-10: Prepare an HPMP and Conduct Data Recovery Excavations (Only Appropriate for CA-CCo-147) for Archaeological Materials on Holland Tract</p> <p>Mitigation Measure M-11: Cap Archaeological Sites on Holland Tract</p> <p>Mitigation Measure M-12: Construct Fencing or Other Barriers to Prevent Site Access on Holland Tract</p> <p>Mitigation Measure M-13: Construct Levees or Beach Slopes around Archaeological Sites to Decrease Wave Action and Erosion on Holland Tract</p> <p>Mitigation Measure M-14: Prepare an HPMP to Provide for the Long-Term Monitoring of Known Archaeological Sites on Holland Tract</p>	<p>Impact CUL-2: Disturbance to Archaeological Remains as a Result of Compaction, Inundation, Wave-Induced Erosion, or Habitat Development and Management (LTS-M)</p> <p>Mitigation Measure CUL-MM-1: Prepare and Implement a Historic Properties Treatment Plan</p> <p>The HPTP will include the following components in addition to those described for Impact CUL-1:</p> <p>Mitigation Measure CUL-MM-1e: Provide Methods and Guidance for Subsurface Testing in the Form of Remote Sensing and Excavation</p> <p>Mitigation Measure CUL-MM-1g: Prepare and Implement an Archaeological Resources Data Recovery Plan for Site-Specific Resources</p>
<p>Impact M-9: Disturbance of Buried Resources (If Present) in the Archaeologically Sensitive Piper Sands on Holland Tract (LTS-M)</p> <p>Mitigation Measure M-4: Prepare an HPMP to Provide for the Long-Term Monitoring and Treatment of Archaeologically Sensitive Areas on Holland Tract</p>	<p>Impact CUL-2: Disturbance to Archaeological Remains as a Result of Compaction, Inundation, Wave-Induced Erosion, or Habitat Development and Management (LTS-M)</p> <p>Mitigation Measure CUL-MM-1: Prepare and Implement a Historic Properties Treatment Plan</p> <p>The HPTP will include the following components in addition to those described for Impact CUL-1:</p> <p>Mitigation Measure CUL-MM-1e: Provide Methods and Guidance for Subsurface Testing in the Form of Remote Sensing and Excavation</p> <p>Mitigation Measure CUL-MM-1g: Prepare and Implement an Archaeological Resources Data Recovery Plan for Site-Specific Resources</p>

2001 FEIR and 2001 FEIS Impacts and Mitigation Measures	Differences between 2010 Place of Use EIR and 2001 FEIR and 2001 FEIS Impacts and Mitigation Measures
<p>Impact M-10: Disturbance of Unknown Resources on Unsurveyed Portions of Holland Tract (LTS-M)</p> <p>Mitigation Measure M-15: Survey Unsurveyed Portions of Holland Tract and Determine Eligibility for NRHP Listing and Appropriate Treatment</p>	<p>Impact CUL-2: Disturbance to Archaeological Remains as a Result of Compaction, Inundation, Wave-Induced Erosion, or Habitat Development and Management (LTS-M)</p> <p>Mitigation Measure CUL-MM-1: Prepare and Implement a Historic Properties Treatment Plan</p> <p>The HPTP will include the following components in addition to those described for Impact CUL-1:</p> <p>Mitigation Measure CUL-MM-1e: Provide Methods and Guidance for Subsurface Testing in the Form of Remote Sensing and Excavation</p> <p>Mitigation Measure CUL-MM-1g: Prepare and Implement an Archaeological Resources Data Recovery Plan for Site-Specific Resources</p>
<p>Impact M-11: Demolition of the CRHR-Eligible Historic District on Bacon Island (SU)</p> <p>Mitigation Measure M-5: Prepare an HPMP and a Data Recovery Plan for Archaeological Deposits on Bacon Island</p> <p>Mitigation Measure M-6: Prepare a Videotape of Public Broadcasting System Quality of the NRHP-Eligible Historic District on Bacon Island</p> <p>Mitigation Measure M-7: Prepare a Popular Publication on Bacon Island Resources for Use by Museums, Cultural Centers, and Schools</p> <p>Mitigation Measure M-8: Complete Historic American Building Survey/Historic American Engineering Record Forms, Including Photographic Documentation, That Preserve Information about the NRHP-Eligible District on Bacon Island</p>	<p>Impact CUL-1: Destruction of Buildings and Structures from Demolition on Bacon Island (LTS-M)</p> <p>Mitigation Measure CUL-MM-1: Prepare and Implement a Historic Properties Treatment Plan</p> <p>Mitigation Measure CUL-MM-1a: Complete Historic Research, Measured Drawings, and Photographic Documentation of the Bacon Island Rural Historic District</p> <p>Mitigation Measure CUL-MM-1b: Prepare and Implement an Archaeological Resources Data Recovery Plan</p> <p>Mitigation Measure CUL-MM-1c: Produce a Publication to Disseminate Historical Information regarding the Bacon Island Rural Historic District to the Public</p> <p>Mitigation Measure CUL-MM-1d: Prepare a Video That Disseminates Historical Information and Explains the Character-Defining Features of the Bacon Island Rural Historic District to the Public</p>
<p>Impact M-12: Disturbance of Archaeological Site CA-SJo-208H on Bouldin Island (LTS)</p> <p>Mitigation Measure M-9: Prepare an HPMP and a Data Recovery Plan for Archaeological Deposits on Bouldin Island</p>	<p>Impact CUL-2: Disturbance to Archaeological Remains as a Result of Compaction, Inundation, Wave-Induced Erosion, or Habitat Development and Management (LTS-M)</p> <p>Mitigation Measure CUL-MM-1: Prepare and Implement a Historic Properties Treatment Plan</p> <p>The HPTP will include the following components in addition to those described for Impact CUL-1:</p> <p>Mitigation Measure CUL-MM-1e: Provide Methods and Guidance for Subsurface Testing in the Form of Remote Sensing and Excavation</p> <p>Mitigation Measure CUL-MM-1g: Prepare and Implement an Archaeological Resources Data Recovery Plan for Site-Specific Resources</p>

2001 FEIR and 2001 FEIS Impacts and Mitigation Measures	Differences between 2010 Place of Use EIR and 2001 FEIR and 2001 FEIS Impacts and Mitigation Measures
	<p>Impact CUL-3: Disturbance to Human Remains from Compaction as a Result of Inundation, Wave-Induced Erosion, Habitat Development and Management, or Vandalism (SU)</p> <p>Mitigation Measure CUL-MM-1: Prepare and Implement a Historic Properties Treatment Plan</p> <p>The HPTP will include the following component in addition to those described for Impact CUL-1:</p> <p>Mitigation Measure CUL-MM-1f: Negotiate, Prepare, and Implement a Preburial Agreement with the Most Likely Descendant (as Determined by the Native American Heritage Commission) of Potential Native American Interments Located in Webb Tract Piper Sands in the Project Area</p> <p>Mitigation Measure CUL-MM-1g: Prepare and Implement an Archaeological Resources Data Recovery Plan for Site-Specific Resources</p>
<p>Note: SU = Significant and unavoidable; LTS = Less than significant; LTS-M = Less than significant with mitigation; B = Beneficial.</p>	

Summary of Changes, New Circumstances, and New Information

Changes in the affected environment, regulatory setting, and environmental effects of the Project related to cultural resources are described in the Existing Conditions section below. A summary of findings based on that consideration follows.

Substantial Changes in the Project

Since the 2001 FEIR and 2001 FEIS were completed, there have been no substantial changes in the Project resulting in new significant effects or substantial increase in the severity of effects on cultural resources.

New Circumstances

Since the 2001 FEIR and 2001 FEIS were completed, there have been no substantial new circumstances resulting in new significant effects or substantial increase in the severity of effects on cultural resources.

New Information

There is no new information of substantial importance that would result in an increase in severity of effects on cultural resources. However, since the publication of the 2001 FEIR and 2001 FEIS, new information and methods have been developed for identification of and consultation concerning cultural resources.

The key sources of new data and information used in the preparation of this section are:

- findings from updated records searches of the California Historical Resources Information System repositories;
- an updated reconnaissance-level survey of the built environment; and
- consultation with historical organizations, as well as federally and non-federally recognized Native American groups.

The new methods and practices used consist of changes in:

- the determination of cultural resource significance in consideration of the cultural values of indigenous groups, descendant groups, and historical entities;
- methods of identifying subsurface remains through remote sensing techniques;
- understanding of the types and depths of resources possible in Piper soils; and
- requirements in identifying the potential for deeply buried resources.

In assessing the significance of archaeological resources, cultural resource managers typically give the most weight to Criterion D/Criterion 4 of the NRHP/CRHR significance criteria (see Regulatory Setting below). Essentially, cultural resource managers consider primarily the scientific information potential of archaeological resources when evaluating resource significance. Whereas this is acceptable practice under federal and state cultural resources regulations, the application of Criterion D/Criterion 4 does not obviate the need to evaluate archaeological resources under Criteria A–C/1–3. Archaeological sites are often places where the ancestors of living communities are buried or where traditional activities are still carried out, the latter often qualifying the resource as a “traditional cultural property.” Since the publication of works concerning the documentation of traditional cultural properties (King 2003; Parker and King 1998), it has become commonplace for cultural resource managers to find archaeological sites that contain human remains significant under Criterion A/1.

ICF updated the impacts and mitigation discussions to include remote-sensing investigations as a means of resource identification and evaluation, in light of advances made with instruments such as ground-penetrating radar since the 1990s. Properly employed, remote-sensing instruments are invaluable tools for cultural resources management in that the use of such instruments causes very

little to no damage on cultural resources. (Conyers 2004; Conyers and Goodman 1997; Feder 1997:59–63.)

In light of these new methods and requirements, ICF Jones & Stokes conducted an updated investigation of the cultural resources in the Project area. Those efforts are reflected in an expanded discussion of Piper soils and an increase in the number of cultural resources determined eligible for the California Register of Historic Resources, among other findings. The archaeological potential of Piper soils in the Project area also addresses the potential for buried archaeological resources—that is, archaeological resources that are not evident on the present ground surface—in the Project area. This important issue is the focus of a recent archaeological study in the Project vicinity (Rosenthal and Meyer 2004).

Existing Conditions

This section discusses changes in the existing conditions or regulatory setting since the 2001 FEIR and 2001 FEIS.

Regulatory Setting

Federal

Section 106 of the National Historic Preservation Act

The Project requires a permit from the Corps under Section 404 of the CWA. As the federal permitting agency, the Corps is required to comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966 as amended, and its implementing regulations (36 CFR Part 800).

Section 106 of the NHPA requires that, before beginning any federally permitted undertaking, the federal agency must take into account the effects of the undertaking on historic properties and afford the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on these actions (the term *historic properties* is defined in the section below entitled National Register of Historic Places. The Section 106 process has five basic steps.

1. Initiate the Section 106 consultation process.
2. Identify and evaluate historic properties.
3. Assess effects of the undertaking on historic properties.
4. Resolve any adverse effects of the Project on historic properties in consultation with the State Historic Preservation Officer (SHPO), resulting in a Memorandum of Agreement (MOA) that spells out specific measures to avoid or mitigate impacts on the historic property.
5. Proceed in accordance with the MOA.

Specific regulations regarding compliance with Section 106 state that, although the tasks necessary to comply with Section 106 may be delegated to others, the federal agency (in this case, the Corps) is ultimately responsible for ensuring that the Section 106 process is completed according to statute.

Summary of Past Project Section 106 Compliance

Under circumstances defined at 36 CFR 800, a federal agency may execute and implement a programmatic agreement (PA) to satisfy the requirements of Section 106. Such an agreement document was executed among the Corps, the State Water Board, the SHPO, the ACHP, and the Project applicant regarding the implementation of the Project in December 1997. The PA calls for an inventory of the remaining unsurveyed area of the Project area, and the evaluation of any properties recorded as a result of this survey for National Register of Historic Places (NRHP) eligibility. The PA also calls for the development and implementation of a Historic Properties Management Plan (HPMP), which will call for, among other tasks, the development of monitoring plans and data recovery plans as necessary. Other subjects addressed in the PA include procedures for: changes in the Project or Project area; inadvertent discovery of cultural materials or human remains during Project implementation; participation of interested parties; review, consultation, and coordination among the Corps, the State Water Board, the SHPO, and the ACHP; curation and disposition of cultural and human remains; and dispute resolution.

National Register of Historic Places

Section 106 requires federal agencies, or those they fund or permit, to consider the effects of their actions on historic properties—that is, properties that may be eligible for listing or are listed in the NRHP. To determine whether an undertaking could affect NRHP-eligible properties, cultural resources (including archeological, historical, and architectural properties) must be inventoried and evaluated for the NRHP. To qualify for listing in the NRHP, a property must be at least 50 years old or, if less than 50 years old be of exceptional historic significance. It must represent a significant theme or pattern in history, architecture, archaeology, engineering, or culture at the local, state, or national level. A property must meet one or more of the four criteria listed below. The criteria for evaluation of the eligibility of cultural resources for listing in the NRHP are defined in 36 CFR 60.4 as follows:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, 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 embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (D) that have yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting the significance criteria, potentially historic properties must possess integrity to be considered eligible for listing in the NRHP. Integrity refers to a property's ability to convey its historic significance (National Park Service 1991). Integrity is a quality that applies to historic resources in seven specific ways: location, design, setting, materials, workmanship, feeling, and association. A resource must possess two, and usually more, of these kinds of integrity, depending on the context and the reasons the property is significant.

State

California Register of Historical Resources

The CRHR was created by the California State Legislature in 1992 and is intended to serve as an authoritative listing of historical and archaeological resources in California. Additionally, the eligibility criteria for the CRHR are intended to serve as the definitive criteria for assessing the significance of historical resources for purposes of CEQA compliance, establishing a consistent set of criteria for use by all public agencies statewide.

For a historical resource to be eligible for listing in the CRHR, it must be significant at the local, state, or national level under one or more of the following criteria from State CEQA Guidelines Section 15064.5(a)(3), Subsections (A)–(D).

- It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage (Criterion 1).
- It is associated with the lives of persons important in our past (Criterion 2).
- It 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 (Criterion 3).
- It has yielded, or may be likely to yield, information important in prehistory or history (Criterion 4).

Local

Bacon and Bouldin Islands are located in San Joaquin County, and Webb and Holland Tracts are located in Contra Costa County. The local regulations established by San Joaquin and Contra Costa Counties that pertain to the islands that fall within their respective boundaries are described below.

Contra Costa County General Plan

Contra Costa County's General Plan includes a historic and cultural resources element designed to assist the County in its objective to, "identify and preserve important archaeological and historic resources within the County." The following polices are noted in the General Plan:

1. Areas which have identifiable and important archaeological or historic significance shall be preserved for such uses, preferably in public ownership.
2. Buildings or structures that have visual merit and historic value shall be protected.
3. Development surrounding areas of historic significance shall have compatible and high quality design in order to protect and enhance the historic quality of the area.
4. Within the Southeast County area, applicants for subdivision or for land-use permits to allow nonresidential uses shall provide information to the County on the nature and extent of the archaeological resources that exist in the area. The County Planning Agency shall be responsible for determining the balance between the multiple uses of the land with the protection of resources.

San Joaquin County General Plan

San Joaquin County's General Plan includes a Heritage Resources element designed to assist the County in its objective to, "[p]rotect San Joaquin County's valuable architectural, historical, archaeological, and cultural resources." The following polices are noted in the General Plan:

1. The County shall continue to encourage efforts, both public and private, to preserve its historical and cultural heritage.
2. Significant archaeological and historical resources shall be identified and protected from destruction. If evidence of such resources appears after development begins, an assessment shall be made of the appropriate actions to preserve or remove the resources.
3. No significant architectural, historical, archaeological or cultural resources shall be knowingly destroyed through County action.
4. Reuse of architecturally interesting or historical buildings shall be encouraged.
5. The County shall promote public awareness of and support for historic preservation.

Affected Environment

Existing cultural resources conditions are, for the most part, as they were presented in the 2001 FEIR and 2001 FEIS and are hereby incorporated by reference. An updated cultural resources investigation resulted in the following minor changes to the affected environment.

California Register of Historical Resources—Eligible Resources

A number of CRHR-eligible resources have been identified in the Project area, as shown in Table 4.11-2. This section presents the CRHR-eligible resources on each island and discusses any changes that have occurred since the 2001 FEIR and 2001 FEIS. In each case of a CRHR-eligible resource, the criteria for which the resource is eligible are explained to assist in defining appropriate mitigation measures.

In addition, there are some resources that either have not been formally evaluated previously or cannot be until further extensive remote sensing and subsurface excavation are conducted. These are, for the purposes of this Project, presumed to be CRHR-eligible resources. These include known areas of Piper sand mounds and sites recently identified in the documentary record.

Table 4.11-2. Changes in Findings Regarding CRHR-Eligible Resources

CRHR-Eligible Resource	Island/Tract	CRHR Criteria
Bacon Island Rural Historic District	Bacon Island	1, 2, 4
CA-SJO-208H	Bouldin Island	4
CA-SJO-210H	Bouldin Island	4
CA-CCO-147	Holland Tract	1, 4
CA-CCO-593	Holland Tract	1
CA-CCO-678	Holland Tract	1
Piper Soils (approximately 100 acres)	Holland Tract	1, 4
Piper Soils (approximately 335 acres)	Webb Tract	1, 4

Bacon Island Rural Historic District

The Bacon Island Rural Historic District was identified in the 2001 FEIR and 2001 FEIS as having several important contributing elements, including the cultural landscape, water system, and the remaining architectural fabric of the camps, components of camp design, and archaeological remains. These remains are associated with ten labor camps that were determined eligible for the NRHP under Criteria A, B, C, and D.

However, since 2001, 20 buildings in the historic district have been destroyed through vandalism, fire, and deterioration, and one building was demolished during an emergency levee repair. Although the district retains integrity sufficient to convey significance under CRHR Criteria 1, 2, and 4, it no longer appears to retain sufficient integrity to convey its significance under Criterion 3. The built environment resources have suffered substantial loss of integrity through their complete demolition or their deterioration to the point of losing the materials and workmanship that illustrated the vernacular Craftsman architectural style for which they were deemed significant.

All of the cultural resources in the district are significant under CRHR Criteria 1 and 2 for their association with George Shima, a Japanese farmer influential in the development of Delta lands for agriculture following island reclamation. Mr. Shima employed Japanese tenant farmers during the early 1900s when laws prohibited Asians from owning land. Buildings and structures, although no longer contributing for their architectural integrity, still provide information regarding camp layout and function. Finally, seven known archaeological sites that contain material important to ongoing research on Japanese-American culture are present on the island (Criterion 4). Consequently, the Bacon Island Rural Historic District appears to be eligible under CRHR Criteria 1, 2, and 4, and therefore resources that compose the district are historical resources for the purposes of CEQA.

Archaeological Sites

CA-SJO-208H

CA-SJO-208H is a historic archaeological site located on Bouldin Island that is eligible for the CRHR under Criterion 4. No changes to the known existing conditions as of 2001 on Bouldin Island have been identified.

CA-SJO-210H

CA-SJO-210H is a historic archaeological site located on Bouldin Island consisting of the remains of George Shima's Camp #16, which was established in 1916 and used until World War II (Maniery and Wilcox 1988; Paterson et al. 1978). The records search data show this site was recorded by PAR & Associates as part of the Delta Wetlands Water Storage Project; it does not appear in the associated report (PAR & Associates 1989). Because no documentation exists indicating it was evaluated and found not eligible for either the NRHP or the CRHR, CA-SJO-210H is considered eligible for the CRHR under Criterion 4 for the purposes of this Place of Use EIR.

CA-CCO-147

CA-CCO-147 is a prehistoric archaeological site that contains intact human remains and appears to retain a substantial archaeological deposit. The site is eligible for listing in the CRHR under Criteria 1 and 4 because of its data potential (Criterion 4) and because of the importance that Native Americans place on burials (Criterion 1).

CA-CCO-593

CA-CCO-593 is a prehistoric archaeological site on Holland Tract that was determined not eligible for the NRHP because it lacks archaeological integrity. However, a number of disarticulated human skeletal remains were observed during the excavation. It is now common practice to consider sites that have human remains to be significant cultural resources (Parker and King 1998). Such sites therefore can be considered eligible for the CRHR because of their association with important events, specifically because they hold cultural importance to Native Americans. This renders the site now eligible for the CRHR under Criterion 1.

CA-CCO-678

CA-CCO-678 does not contain intact archaeological deposits and does not meet CRHR eligibility Criterion 4 for its archaeological value. However, intact human remains that have importance to Native Americans have been found at this site. It is now common practice to consider sites that have human remains eligible for the CRHR because of their association with important events, specifically because they hold cultural importance to Native Americans. Therefore, the site is eligible for the CRHR under Criterion 1.

Piper Soils

Among areas of greatest prehistoric archaeological sensitivity in the Delta region are those where Piper soils are located (Jones & Stokes 2007:20). The Piper sand mounds of the Delta are remnant soil formations typically associated with Early and Middle Horizon archaeological sites that once stood above the level of the surrounding tule marshes. Because of their elevation above the frequently inundated peat soils, these sand mounds often were used by prehistoric peoples for village and burial sites (Jones & Stokes 2007:20).

Numerous excavations in the Delta area have shown that Piper sand formations are indicators for buried prehistoric sites that include habitation debris and human burials. Typically, there is little to no superficial indication of these sites, and as a result, many of the archaeological finds were inadvertent discoveries associated with ground-disturbing grading or quarrying activities. (Jones & Stokes 2007:29–30.) It is possible more sites exist on the Project islands than have been discovered to date, although few portions of the islands are above sea level.

Several factors affect the visibility of Piper sand formation archaeological sites, including sea-level fluctuation, dune formation, and increases in sedimentation rates from human activities such as hydraulic mining in the Sierra Nevada foothills. Because of this, traditional methods of surface survey are not as effective for locating archaeological sites in the Delta region. The most successful archaeological studies of Piper sand sites have consisted of extensive subsurface exploration that has often been rewarded with a wealth of new data on the early inhabitants of this culturally and environmentally unique region. (Jones & Stokes 2007:29–30.)

Piper Soils on Holland Tract

There are 100 acres of Piper sand mounds on Holland Tract that would be affected by Alternative 3 only. These Piper sand mounds have not been surveyed because they are on property that is not owned or under the control of the Project applicant, and the current owner did not permit the area to be surveyed. These soils could contain significant archaeological resources and human burials. Because there is potential for significant buried resources, this soil component is considered eligible for the CRHR under Criteria 1 and 4 for the purposes of this Place of Use EIR.

Piper Soils on Webb Tract

No cultural resources have been identified on Webb Tract. However, 335 acres of Piper soil that could contain significant archaeological resources are present on the tract. These Piper sand mounds have been surveyed, but no archaeological resources were found. Because there is potential for significant buried resources, this soil component is considered eligible for the CRHR for the purposes of this Place of Use EIR.

Environmental Commitments

The environmental commitments, as described in Chapter 2, would not alter the impact findings related to cultural resources.

Environmental Effects

Methods

This analysis of environmental effects on cultural resources was prepared by applying the State CEQA Guidelines significance criteria to expected Project impacts. Also considered were procedural changes in cultural resources management, as outlined earlier under New Information, above.

Significance Criteria

The cultural resources impact analysis considered several criteria for determining the significance of impacts related to this resource. The analysis took into account both relevant criteria contained in Appendix G of the State CEQA Guidelines (Association of Environmental Professionals 2009) and Project-specific criteria developed by the lead agency to address potential impacts unique to the Project's location and elements.

State CEQA Guidelines Section 15064.5(a) dictates that a resource can qualify as a significant historical resource for the purposes of CEQA review if it meets any of the following criteria.

- It is listed in or determined eligible for listing in the CRHR.
- It is included in a local register of historical resources, as defined in Section 5020.1(k) of the California Public Resources Code, or identified as significant in a historical resource survey that meets the requirements of Section 5024.1(g) of the Public Resources Code, unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- The lead agency determines it is significant as supported by substantial evidence in light of the whole record.

For a historical resource to be eligible for listing in the CRHR, it must be significant at the local, state, or national level under one or more of the following criteria from State CEQA Guidelines Section 15064.5(a)(3)(A)–(D).

- It is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage (Criterion 1).
- It is associated with the lives of persons important in our past (Criterion 2).
- It 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 (Criterion 3).
- It has yielded, or may be likely to yield, information important in prehistory or history (Criterion 4).

A project has a significant effect on the environment when it causes a “substantial adverse change in the significance of a historic resource,” defined as the “...physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historic resource would be materially impaired.” (State CEQA Guidelines Section 15064.5(b)(1).

Impacts and Mitigation Measures

Impacts on cultural resources resulting from implementing the Project were described in the 2001 FEIR and 2001 FEIS and are listed in Table 4.11-1. Where there have been no changes to the impact analysis or conclusions, the 2001 FEIR and 2001 FEIS is incorporated by reference, and the impact conclusions and mitigation measures are summarized briefly in the following section.

Proposed Project (Alternative 2)

Impact CUL-1: Destruction of Buildings and Structures from Demolition on Bacon Island

Because properties on Bacon Island are eligible for CRHR listing as a historic district, the effect of implementation of Alternative 2 on the district as a whole must be assessed.

The majority of the buildings contributing to the eligibility of the Bacon Island Rural Historic District would be affected by reconstruction of the levees and inundation as all buildings are planned for demolition. Most of the structures lie on the perimeters of the islands in areas that would be disturbed by reconstruction of levees. Structures on the sides or near the bases of levees would be subject to significant impacts resulting from fill placement.

This impact is considered significant; however, implementing Mitigation Measures CUL-MM-1a through CUL-MM-1d would reduce this impact to a less-than-significant level.

Affected Resources

- Bacon Island Rural Historic District

Mitigation Measure CUL-MM-1: Prepare and Implement a Historic Properties Treatment Plan

Prior to implementation of any Project activities, the lead agency will ensure that a Historic Properties Treatment Plan (HPTP) is prepared and implemented by individuals who meet the Secretary of Interior's Standards for Archaeology, History, and Architectural History. This HPTP will include specific detailed guidance and methods to mitigate impacts to a less-than-significant level. The HPTP will include the following components:

Mitigation Measure CUL-MM-1a: Complete Historic Research, Measured Drawings, and Photographic Documentation of the Bacon Island Rural Historic District. This documentation will meet the minimum requirements of the Historic American Building Survey/Historic American Engineering Record/Historic American Landscape Survey for resources with national significance. This component of the HPTP will be completed before components CUL-MM-1c and CUL-MM-1d so the results may be integrated into the products required by those components.

Mitigation Measure CUL-MM-1b: Prepare and Implement an Archaeological Resources Data Recovery Plan. This plan will specify how significant archaeological data will be recovered from the Bacon Island Rural Historic District, analyzed, and reported to professionals and the public. This component of the HPTP will be completed before components CUL-MM-1c and CUL-MM-1d so the results may be integrated into the products required by those components.

Mitigation Measure CUL-MM-1c: Produce a Publication to Disseminate Historical Information regarding the Bacon Island Rural Historic District to the Public. This document should combine historical photographs with information gathered from historical research and interviews to describe the history of Bacon Island and its relevance to modern society. The publication should be prepared for use by schools, historical societies, local museums, and the general public.

Mitigation Measure CUL-MM-1d: Prepare a Video That Disseminates Historical Information and Explains the Character-Defining Features of the Bacon Island Rural Historic District to the Public. This production should be prepared to meet the technical requirements for airing on the Public Broadcasting System (PBS), as specified in the PBS producers' handbook.

Impact CUL-2: Disturbance to Archaeological Remains as a Result of Compaction, Inundation, Wave-Induced Erosion, or Habitat Development and Management

Because the value of archaeological resources often depends on their integrity, Project activities that disturb buried resources could render them insignificant. If significant buried resources are disturbed by implementation of Alternatives 1, 2, or 3, such disturbance would be considered a significant impact. Implementing

Mitigation Measure CUL-MM-1 would reduce this impact to a less-than-significant level.

Affected Resources

- Piper sands on Webb Tract

Mitigation Measure CUL-MM-1: Prepare and Implement a Historic Properties Treatment Plan

The HPTP will include the following component in addition to those described above:

Mitigation Measure CUL-MM-1e: Provide Methods and Guidance for Subsurface Testing in the Form of Remote Sensing and Excavation. This testing will determine the presence or absence of significant archaeological remains within Piper soils in the Project area. If significant archaeological resources are identified, prepare and implement an archaeological resources data recovery plan that specifies how significant archaeological data will be recovered from the Piper soils in the Project area, analyzed, and reported to professionals and the public. Specify notification procedures in the event of discovery of cultural materials in the archaeologically sensitive Piper sand deposits. The HPMP will include a monitoring plan to address impacts resulting from inadvertent discovery of cultural resources during ongoing Project operations and will outline treatment and management requirements for these resources.

Impact CUL-3: Disturbance to Human Remains as a Result of Compaction, Inundation, Wave-Induced Erosion, Habitat Development and Management, or Vandalism

Ground-disturbing activities could uncover previously undiscovered burials within the Project area. Disturbance of intact burials would be considered a significant impact. Implementing CUL-MM-1 would reduce the severity of this impact but not to a less-than-significant level. This impact is significant and unavoidable.

Affected Resources

- Piper sands (Webb) (Alternatives 1, 2, 3)

Mitigation Measure CUL-MM-1 Prepare and Implement a Historic Properties Treatment Plan

The HPTP will include the following components in addition to those described under Impacts CUL-1 and CUL-2:

Mitigation Measure CUL-MM-1f: Negotiate, Prepare, and Implement a Preburial Agreement with the Most Likely Descendant (as Determined by the Native American Heritage Commission) of Potential Native American Interments Located in Webb Tract Piper Sands in the Project Area. Specific mitigation and/or treatment in relation to the potential for burials will be dependent upon this negotiation. Mitigation and/or treatment typically includes adoption of project design guidelines that minimize disturbance to sensitive areas as well as methods and guidance for: identifying intact interments; recovery, treatment, and

reburial of interments; and the ultimate ownership of human remains and burial items. Mitigation and/or treatment also typically includes methods and guidance in the event of an inadvertent discovery of human remains.

Alternative 1

The impacts and mitigation measures for Alternative 1 are identical to those for Alternative 2, described above.

Alternative 3

Impact CUL-1: Destruction of Buildings and Structures from Demolition on Bacon Island

This impact is the same as described under Alternative 2.

Mitigation Measure CUL-MM-1: Prepare and Implement a Historic Properties Treatment Plan

These mitigation measures (CUL-MM-1a through CUL-MM-1d) are the same as described under Alternative 2.

Impact CUL-2: Disturbance to Archaeological Remains as a Result of Compaction, Inundation, Wave-Induced Erosion, or Habitat Development and Management

This impact and mitigation measure are the same as described under Alternative 2, with the exception that they apply to the resources in the bullet list below. Mitigation Measure CUL-MM-1g is added as well.

Affected Resources

- Piper sands on Webb Tract
- CA-SJO-208H on Bouldin Island
- CA-SJO-210H on Bouldin Island
- CA-CCO-147 on Holland Tract
- Piper sands on Holland Tract

Mitigation Measure CUL-MM-1: Prepare and Implement a Historic Properties Treatment Plan

The HPTP will include the following components in addition to those described under Alternative 2:

Mitigation Measure CUL-MM-1g: Prepare and Implement an Archaeological Resources Data Recovery Plan for Site-Specific Resources. This plan will specify how significant archaeological data will be identified; recovered from sites CA-SJO-208H, CA-SJO-210H, and CA-CCO-147; analyzed; and reported to professionals and the public.

Impact CUL-3: Disturbance to Human Remains as a Result of Compaction, Inundation, Wave-Induced Erosion, Habitat Development and Management, or Vandalism

This impact and associated mitigation measures are the same as described for Alternative 2, except that they apply to resources listed below.

Affected Resources

- Piper sands (Webb Tract)
- CA-CCO-593 (Holland Tract)
- CA-CCO-147 (Holland Tract)
- CA-CCO-678 (Holland Tract)
- Piper sands (Holland Tract)

Mitigation Measure CUL-MM-1 Prepare and Implement a Historic Properties Treatment Plan

The HPTP will include the following components in addition to those described under Alternative 2, above:

Mitigation Measure CUL-MM-1g: Prepare and implement an archaeological resources data recovery plan that specifies how significant archaeological data will be identified; recovered from sites CA-SJO-208H, CA-SJO-210H, and CA-CCO-147; analyzed; and reported to professionals and the public.

No-Project Alternative

Activities associated with the No-Project Alternative consist of intensified agricultural practices on all four islands, as well as an intensified for-fee hunting program. On Holland and Webb Tracts, any intensification of activities that affect Piper soils could increase the extent and severity of disturbance of prehistoric resources. Reintroduction of hog feeding could affect the Piper sand mounds if animals are concentrated in those areas. Grazing, plowing, and planting and levee construction and replenishment are activities associated with intensified agricultural practices, and all have the potential to disturb or destroy significant cultural resources on the islands. However, this result is not significantly different from continued present practice.

Because of the potential for unearthing Native American burials, the California Public Health and Safety Code and the Public Resources Code apply. If agreement between the landowner and the NAHC cannot be reached, the landowner nonetheless is required to re-inter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance. Any disturbance or removal of human remains without authority of law is a felony under the California Public Health and Safety Code.

Damage to Historic Structures Resulting from Agricultural Practices, Hunting, and Continued Vandalism on Bacon Island

Under existing conditions or the No-Project Alternative, an indirect effect of agriculture on cultural resources results from the use of historic structures as boarding houses. Normal wear and tear and modification of the structures without concern for their historic integrity could reduce their significance. Continued use of the structures in this manner probably would result in a need for replacement, perhaps accompanied by demolition of the historic structures. Occupation of the historic structures provides some protection because they are less vulnerable to vandalism. Vandalism does occur currently, however, to some degree, and greater human presence as a result of increased hunting could slightly elevate that risk. The advanced stage of deterioration of the structures may be accelerating the normal wear and tear of neglect from the natural elements (e.g., rain, wind, sun, vegetation). Damage to historic structures resulting from agricultural practices and continued vandalism under the No-Project Alternative is not significantly changed from existing conditions.

Disturbance of Archaeological Resources or Human Remains as a Result of Agricultural Activities

Affected resources are: Piper sands on Webb Tract, CA-SJO-208H on Bouldin Island, CA-SJO-210H on Bouldin Island, CA-CCO-147 on Holland Tract, Piper sands on Holland Tract, CA-CCO-593 on Holland Tract, and CA-CCO-678 on Holland Tract. If the No-Project Alternative is selected, disturbance of archaeological resources or human remains as a result of agricultural activities is not significantly changed from existing conditions. Intact burials that are inadvertently discovered in known sites during agricultural activities should be treated as outlined above. Treatment could include removing the burials from the site and reburying them elsewhere, in consultation with the NAHC.