3.4 CULTURAL RESOURCES

3.4.1 INTRODUCTION

This section presents an evaluation of potential impacts on cultural resources that could result with implementation of the SERP. Cultural resources consist of built environment features (buildings and structures), historic-era or prehistoric archaeological deposits, and traditional cultural properties (detailed in the following section).

3.4.2 REGULATORY SETTING

FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

Section 106 of the National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) (or "section 106") and its implementing regulations require federal agencies to consider the effects of their undertakings on cultural resources that are listed in or eligible for listing on the National Register of Historic Places (NRHP). These resources are defined as "historic properties" in the section 106 process. The federal authorizations and permits required for the SERP (in particular, approval of a permit by the U.S. Army Corps of Engineers [USACE] under section 404 of the Clean Water Act, as described in section 3.3) are undertakings as defined in the section 106 regulations (36 Code of Federal Regulations [CFR] Part 800.16[y]) that require compliance with section 106.

Federal agencies typically perform the following primary steps to satisfy the requirements of section 106:

1. Initiate the section 106 process by consulting with the State Historic Preservation Officer (SHPO) (36 CFR Part 800.3).

2. Determine the area of potential effects (APE). The APE consists of the footprint of activities associated with the undertaking that have the potential to adversely affect historic properties (36 CFR Part 800.4[a][1]).

3. Perform an inventory of cultural resources within the APE and evaluate those resources to determine which resources constitute historic properties subject to management under section 106 (36 CFR Part 800.4). Inventory methods should be appropriate to the nature of the APE and the types of resources that may be encountered in the APE.

4. Identify and consult with Native American tribes that attach cultural religious significance to resources within the APE and with interested members of the public (36 CFR Part 800.3[f]).

5. Assess the effects of the undertaking on identified historic properties within the APE (36 CFR Part 800.5).

6. Resolve adverse effects on historic properties, if any (36 CFR Part 800.6).

Because the SERP would consist of individual small erosion repairs, the location of specific sites cannot be predicted in advance; identifying one APE for the entire SERP and performing all required section 106 management steps before receiving federal permitting is not practicable. The section 106 regulations allow agencies to develop an alternative process for satisfying section 106 by developing and executing a programmatic agreement (PA) for a related set of undertakings (36 CFR Part 800.14). The PA would define the specific set of procedures that USACE and other federal agencies would use for the project in lieu of the standard section 106 process and provided for in the implementing regulations. Under a PA, identification, evaluation, and treatment of historic properties may be phased according to the sequence of federal actions (36 CFR Part 800.4[b][2]). Upon execution (signing and approval) of the PA by the consulting parties, section 106 is deemed sufficiently complete to allow the federal agency to provide permits and authorizations dependent on the section 106 process (36 CFR Part 800.14[b[[2][iii]). The sequence of management steps under a typical PA is similar, but not identical, to the steps under the section 106 process:

- For each small erosion repair, the section 106 lead (USACE) would identify an APE and consult with the SHPO to determine if the APE is appropriate.

- Upon agreement with the SHPO regarding the APE, either USACE as the section 106 lead or DWR as the permittee would perform an inventory of cultural resources in the APE for each individual repair site determined to have the potential to affect historic properties, evaluate those resources for listing in the NRHP, and determine if the repair work would result in adverse effects on those resources.

- For every historic property subject to adverse effects, USACE as the section 106 lead or DWR as the permittee would prepare a historic property treatment plan (HPTP) in consultation with the SHPO and any other consulting parties. The HPTP is typically attached to the PA and may be amended separately from the PA.

- Consultation with Native American tribes that attach cultural or religious significance to resources subject to management under the PA should occur both during the development of the PA and during substantive decision making regarding specific properties of significance to Native American organizations and individuals.

DWR anticipates developing a palette of treatment protocols for resources subject to adverse effects pursuant to the PA to expedite the resolution of adverse effects. These would be

embodied in the Research Design, HPTP, and the Construction Monitoring and Inadvertent Discovery Plan appended to and stipulated by the PA.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

California Environmental Quality Act

CEQA provides a broad definition of what constitutes a cultural or historical resource. Cultural resources can include traces of prehistoric habitation and activities, historic-era sites and materials, and places used for traditional Native American observances or places with special cultural significance.

CEQA states that if a project would have significant impacts on important cultural resources, then alternative plans or mitigation measures must be considered. However, only significant cultural resources (termed “historical resources”) need to be addressed. The State CEQA Guidelines define a historical resource as “a resource listed or eligible for listing on the CRHR” (Public Resources Code Section 5024.1). A resource may be eligible for inclusion in the CRHR if it:

1. is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
2. is associated with the lives of persons important in our past;
3. embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. has yielded, or may be likely to yield, information important in prehistory or history.

The State CEQA Guidelines also require consideration of unique archaeological resources (Section 15064.5). As used in the Public Resource Code (PRC) (Section 21083.2), the term “unique archaeological resource” refers to an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

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

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

In addition to meeting one or more of the above criteria, resources eligible for listing in the CRHR must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association.

California Health and Safety Code

The SERP is also subject to the provisions of the California Health and Safety Code with respect to the discovery of human remains. Health and Safety Code Section 7050.5 states, "Every person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in Section 5097.99 of the Public Resources Code." PRC Section 5097.98, as amended by Assembly Bill 2641, states:

a) Whenever the commission receives notification of a discovery of Native American human remains from a county coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendents may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American human remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendents shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site.

b) Upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section, with the most likely descendents regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendents on all reasonable options regarding the descendants' preferences for treatment.

LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

The SERP consists of a unified approach to environmental permitting and review of erosion repairs within the Sacramento River Flood Control Project (SRFCP). The work proposed under the Phase 1 SERP includes six California counties (Sacramento, Yolo, Solano, Sutter, Colusa, and Butte). Each county has unique goals and policies for the conservation and protection of cultural resources under county general plans and local ordinances. Within the counties, local municipalities also influence land use through general plans and local codes. The breadth of these policies precludes comprehensive discussion herein.

3.4.3 ENVIRONMENTAL SETTING

PREHISTORIC ARCHAEOLOGICAL SETTING

Prehistoric inhabitants of California are described according to the following archeological periods: Paleo-Indian and Lower Archaic, Middle Archaic, Upper Archaic, and Emergent. The earliest well-documented entry of humans into California occurred at the beginning of the Paleo-Indian period (10,000–6000 B.C.). During the Middle Archaic period (3000–1000 B.C.), the broad regional patterns of foraging subsistence strategies gave way to permanent villages occupied year-round, primarily along major waterways. The Upper Archaic period (1000 B.C.–A.D. 500) is marked by the onset of status distinctions and other indicators of growing sociopolitical complexity. Several technological and social changes characterized the Emergent period (A.D. 500–1800). The bow and arrow were introduced, ultimately replacing the dart (small spear) and atlatl (spear thrower). Territorial boundaries between groups became well-established. Exchange of goods between groups became more regularized with more goods, including raw materials, entering into the exchange networks.

The Middle and Upper Archaic and Emergent periods are further broken down under the Central California Taxonomic System. These three time periods are well represented in archaeological assemblages within and near the Phase 1 SERP coverage area:

- Windmiller Pattern (3000–500 B.C.)
- Berkeley Pattern (200 B.C.–A.D. 700)
- Augustine Pattern (A.D. 700–1800)

ETHNOGRAPHIC CONTEXT

The Phase 1 SERP coverage area encompasses lands traditionally occupied by the Patwin, Nisenan, Maidu/Konkow, and Miwok. A very small portion of the Phase 1 SERP coverage area falls in the territory of the Nomlaki. While the indigenous lifeways associated with these groups were transformed and altered in the historic era, descendants of these groups still attach cultural significance to resources that may be affected by projects implemented under the SERP.

HISTORIC CONTEXT

Land reclamation and flood risk reduction are historically associated with the Sacramento Valley and the surrounding watershed. The history of flood risk reduction that would culminate in the construction of the SRFCP is inextricably intertwined with historical industries that drastically altered the landscape and the river systems of the state. The first state-level attempt to orchestrate flood management occurred in 1861 with the creation of the Board of Swampland Commissioners (Board). The California State Legislature enacted a law that empowered this independent body to oversee and orchestrate flood management (Kelley 1989:42–47). While this Board was eventually abolished, the basic blueprint for flood management that persists to the present day came into being with this legislation. In the early 20th century, the growth of agriculture highlighted the demand for a unified flood management system to protect valuable land under cultivation and to expand the industry. In 1917, Congress created the Sacramento Flood Control Project—a unified system of flood control (now the SRFCP). The original scheme encompassed the Sacramento River from Ord Bend (just north of the Sutter Buttes) to approximately Rio Vista (Kelley 1989:275), and was administered by USACE.

NATIVE AMERICAN CONSULTATION

On October 8, 2009, DWR requested a list from the Native American Heritage Commission (NAHC) of Native American individuals and organizations that are affiliated with the regions encompassed in the Phase 1 SERP coverage area. The NAHC responded and provided a list of such individuals on October 23, 2009. DWR sent letters to all individuals on the list on January 12, 2010. The letters provided information about the potential for the SERP to result in impacts on cultural resources and requested information regarding the location of known resources so that they could be protected to the extent feasible.

During development of the PA, Native American organizations that attach cultural and religious significance to resources that may occur in the SRFCP would be contacted. If the SERP would result in adverse effects on specific cultural resources during implementation of individual small erosion repairs, USACE and DWR will be required to consult with Native American organizations that are culturally affiliated with such resources.

Traditional Cultural Properties

This category of resources embraces properties that are significant for traditional values to people of a particular ethnicity or religious affiliation. Specific guidance that defines TCPs and provides for the identification and evaluation of these resources was developed by the U.S. Department of the Interior in the late 1990s. TCPs are generally identified through consultation with Native Americans or other ethnic groups.

3.4.4 Environmental Impacts and Mitigation Measures

Thresholds of Significance

California Environmental Quality Act

Based on Appendix G of the CEQA Guidelines, the SERP would result in a significant impact on cultural resources if it would:

- cause a substantial adverse change in the significance of a historical resource as defined in section 15064.5 of the CEQA Guidelines;
- cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5; or
- disturb human remains, including those interred outside of formal cemeteries.

Section 15064.5 of the CEQA Guidelines defines “substantial adverse change” as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resources is materially impaired.

Generally, CEQA Guidelines Section 15064.5 provides that unlisted resources shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources, including the following:

(A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

(B) Is associated with the lives of persons important in our past;

(C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

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

Analysis Methodology

The potential for impacts on cultural resources is addressed at a program level. Because of the large size of the Phase 1 SERP coverage area, records of identified cultural resources were not retrieved from the California Historical Resources Information System (CHRIS). The Sacramento and San Joaquin Valleys and the Delta are known to be densely populated with prehistoric and historic-era cultural resources; thus, this analysis assumes that resources that are significant under CEQA and section 106 may be present on at least some of the Phase 1

SERP project sites. For purposes of section 106 consultation for the PA, in coordination with USACE, DWR has assumed that the SRFCP levees are historically significant for the purposes of this analysis, although it is likely that few, if any of the levees would be found to meet the significance criteria if they were formally evaluated.

IMPACT ANALYSIS

IMPACT 3.4-1 ***Potential Impacts on Identified Cultural Resources.*** *The Phase 1 SERP coverage area encompasses lands that were inhabited for at least the past 10,000 years by prehistoric Native American populations and potentially significant historical resources. Therefore, repair of small erosion sites could affect significant prehistoric or historic resources. This impact would be* ***potentially significant.***

The Phase 1 SERP coverage area encompasses lands that were inhabited for at least the past 10,000 years by prehistoric Native American populations. Native American settlements and activity loci were often focused near waterways such as the river corridors now managed under the SRFCP. Prehistoric archaeological sites associated with Native American occupation may constitute historic properties eligible for listing on NRHP and would be subject to section 106. It is also possible that significant historic-era resources, such as historic transportation, agricultural, commercial, and navigational features such as shipwrecks and associated artifacts, are located within the SRFCP. Although a comprehensive survey of all previously recorded resources on file with the CHRIS has not been performed, the volume of information on file and the intensity of prehistoric and historic activity along the waterways now encompassed by the SRFCP suggest that significant prehistoric and historic-era cultural resources may occur at some of the individual small erosion sites that would be repaired under the SERP.

Implementation of SERP would require physical construction activity at the repair sites, such as placement of rock slope material, bank fill, and a variety of vegetation plantings. These activities could require disturbance of native soil in addition to disturbance of levee fill. Cultural resources found in levee fill would likely not be significant because they would have been imported from elsewhere, and therefore disassociated from their significance-defining characteristics. Cultural resources found in native soil, however, would have a higher potential to be associated with their significance-defining characteristics. Activities that disturb native soil could alter cultural resources that qualify as historic properties under section 106 or unique archaeological resources such that the significance defining characteristics are damaged or lost. This impact would be potentially significant.

Mitigation Measure 3.4-1: Comply with the PA Prepared by USACE, SHPO, and DWR; Consult with Stakeholders as Required under Section 106 and the PA; Perform Site-specific Technical Studies to Identify and Evaluate Cultural Resources; and Implement Avoidance or Treatment Protocols as Necessary to the Extent Feasible.

Management of cultural resources for the SERP would be performed under a PA prepared by USACE. DWR will perform technical studies and treatment required to identify and manage impacts on cultural resources subject to the input of stakeholders and the approval of USACE and the SHPO. Management of cultural resources required under CEQA would be combined with the management protocols stipulated in the PA. Prior to implementation of individual small erosion repair activities, DWR will perform the following steps:

- conduct an inventory of the individual small erosion repair site and define an APE as required under section 106;
- evaluate identified resources eligible for listing in the NRHP and CRHR;
- determine if the proposed activity would result in significant impacts on resources eligible for the CRHR or adverse effects on historic properties within the meaning of section 106;
- resolve significant impacts either by developing resource-specific treatment protocols or by selecting and implementing treatment measures from a palette of treatment protocols developed pursuant to the PA; and
- consult with stakeholders and consulting parties under the PA such as the SHPO. The inventory, evaluation, and selection of treatment will include a review of relevant local land use policies regarding cultural resources.

DWR will employ methods for inventory efforts and consultation that are appropriate for the sensitivity of the individual small erosion repair site and the probable resources that may occur. Such methods may include geomorphological studies, subsurface testing, and consultation with appropriate Native American organizations and representatives (for example in the identification of TCPs). As necessary, specific technical studies prepared for individual small erosion repairs will define important historic themes relevant to individual repair sites. Mitigation efforts will include, when feasible, avoidance of the resource rather than data recovery excavations or other work that would require disturbance of the deposit. These measures represent the feasible methods for identifying significant cultural resources and reducing potential impacts. Implementation of these measures and compliance with the PA would ensure that adverse effects on cultural resources that may be identified are resolved. Therefore, after the implementation of mitigation, potential impacts to prehistoric or historic resources would be less than significant.

IMPACT 3.4-2 ***Potential Impacts on Assumed Historically Significant Levees.*** *The Phase 1 SERP coverage area encompasses aspects of reclamation and flood risk reduction that are assumed to be historically significant for the purposes of this analysis. Therefore, repair of small erosion sites could affect significant historic resources but would not materially impair the historical significance of the levees. This impact would be* ***less than significant****.*

Although it is likely that few if any of the SERP levees would be found to meet significance criteria, for purposes of section 106 consultation and this analysis DWR in coordination with USACE has assumed that the SRFCP levees are historically significant. SERP does not propose the removal of any levee, the construction of any new levee, the alteration of any levee such that land use patterns would change, nor any changes to any land uses in the vicinity of the program. The waterside small erosion repair sites would not adversely affect these levees, and the historically significant characteristics of the levees would be preserved by implementation of SERP; that is, there would be no change to the characteristics of levees that make them historically significant. Minor alterations to SRFCP levees from small erosion repair projects implemented under SERP would not materially impair the historical significance of the levees; therefore, impacts on assumed historically significant levees would be less than significant.

No mitigation is required.

IMPACT 3.4-3 ***Impacts on Previously Unidentified Cultural Resources.*** *Previously unidentified cultural resources have the potential to be affected by repair of individual erosion sites. This impact would be* ***potentially significant****.*

The floodplains and riverbanks within the SRFCP were extensively occupied and used by prehistoric populations. Prehistoric occupation sites frequently took the form of mounds constructed above the natural ground surface. However, the upper portions of many of these sites have been leveled by recent historic activity or natural fluvial processes, and the remains of these sites are thus no longer easily visible aboveground. Additionally, intermittent flooding deposited layers of alluvium over prehistoric deposits, leaving these resources intact below grade with few or no surface manifestations. These conditions may obscure both prehistoric and historic-era archaeological deposits and shipwrecks. Where cultural resources are buried below sterile soils or truncated with no surface manifestation, discovery before construction repair activities begin is not always possible. It is possible that ground-disturbing work in native soil at individual small erosion repair sites could result in impacts on these resources. This impact is potentially significant.

Mitigation Measure 3.4-3: Train Construction Workers before Construction Begins, Monitor Construction Activities, Stop Potentially Damaging Activities, Evaluate Discovery(ies), and Resolve Adverse Effects on Significant Resources.

DWR will implement the following measures to minimize potential impacts on previously undiscovered cultural resources:

- Every 2 years or before construction begins, construction crews will be given a presentation and training session incorporated into the environmental awareness training before performing work in areas sensitive for previously unidentified resources so that they can assist with identifying undiscovered cultural resource materials and avoid them where possible.
- A DWR archaeologist, where appropriate, will monitor all ground-disturbing construction activities at locations determined to be sensitive for unidentified cultural resources. If a previously unidentified archaeological resource is uncovered during construction, construction activities will be halted within 100 feet of the find and USACE, and other appropriate parties, will be notified regarding the discovery.
- DWR will then consult with USACE and the SHPO to determine the eligibility of the resource for listing in the NRHP or qualification as a unique archaeological resource. If DWR and USACE, in consultation with the SHPO, concur that the resource is eligible for listing and the project may result in adverse effects or significant impacts on the resource, DWR either will implement one of the treatment protocols developed under the PA for the resource or will prepare a resource-specific treatment plan.
- Work may only resume when either all necessary treatment has been performed under the treatment method selected, or approved by the appropriate entity, or construction in the vicinity of the resource will not result in adverse effects or encroach within an appropriate distance from the known boundaries of the resource or the boundaries of the resource.

Implementation of this mitigation measure, in concert with implementation of Mitigation Measure 3.4-1 and compliance with the PA, reduces this impact to less than significant because erosion repair will be allowed to proceed only after the treatment method has been fully implemented.

IMPACT 3.4-4 ***Impacts on Previously Unidentified Human Remains.*** *Prehistoric archaeological deposits that occur along the waterways often contain interred human remains. Therefore, repair of individual erosion sites could affect unidentified human remains. This impact would be* ***potentially significant.***

Prehistoric archaeological deposits that occur along the waterways managed under the SRFCP often contain interred human remains. Because these deposits may not be easily

identifiable on the surface and may be obscured by alluvium, debris, or vegetation, interred human remains may not always be identified before construction begins and during cultural resources inventories. Implementation of the SERP requires ground-disturbing work; therefore, the potential exists for individual small erosion repairs to result in impacts on previously unidentified interred human remains. This impact is potentially significant.

Mitigation Measure 3.4-4: Stop Work in the Event of a Discovery of Human Remains, Notify the Applicable County Coroner and Most Likely Descendant, and Treat Remains in Accordance with State Law and Measures Stipulated in the Programmatic Agreement Prepared by USACE and the SHPO.

DWR will ensure that the following measures are implemented to address the potential discovery of human remains during construction:

- If human remains are uncovered during ground-disturbing activities, all ground-disturbing activities will cease within an appropriate radius of the find. DWR will notify the county coroner of the county in which the remains are uncovered and a professional archaeologist to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she will contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code section 7050[c]). The NAHC will designate a most likely descendant (MLD) to dispose of the remains with appropriate dignity (California Public Resources Code section 5097.98).

- After a determination that the remains are of prehistoric Native American origin, DWR will coordinate with the MLD for reburial of the remains and associated grave goods in an appropriate location. If, within 48 hours, the MLD fails to make a recommendation or reinter the remains, DWR will coordinate with the landowner to reinter the remains in a location not subject to further disturbance as provided for in California Public Resources Code section 5097.98.

- The discovery of prehistoric burials often reveals locations sensitive for the occurrence of additional archaeological material. After the initial discovery and management of human remains, a professional archaeologist working on behalf of DWR will record the site with the NAHC and the appropriate information center and, if possible, use project features to protect the site from future disturbance.

These measures represent the feasible actions to protect inadvertently discovered human remains. Implementation of this mitigation measure reduces this potential impact to a less-than-significant level because the remains would be given to the MLD if possible and any significant additional archeological materials found associated with a burial would be recovered and preserved.

3.4.5 RESIDUAL IMPACTS

The implementation of the SERP would result in potentially significant impacts to previously identified cultural resources and resources that may be discovered during inventory efforts performed for the SERP (Impacts 3.4-1, 3.4-3, and 3.4-4). The available mitigation consists of cultural resource inventories, implementation of treatment measures, and inadvertent discovery protocols. Management of cultural resources for the SERP would be performed under a PA prepared by USACE. Therefore, Impacts 3.4-1, 3.4-3, and 3.4-4 would be **less-than-significant** with implementation of Mitigation Measures 3.4-1, 3.4-3, and 3.4-4, respectively. No significant and unavoidable impacts would occur.

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