

RECORD OF DECISION

FOLSOM DAM RAISE PROJECT PLACER, SACRAMENTO, AND EL DORADO COUNTIES, CALIFORNIA

The final joint Supplemental Environmental Impact Statement and Environmental Impact Report (final SEIS/EIR), dated October, 2017, for the Folsom Dam Raise project addresses flood risk management concerns at Folsom Dam and reservoir, which are located in Placer, El Dorado, and Sacramento Counties, California. This SEIS/EIR supplements the final EIS/EIR for the Folsom Dam Safety and Flood Damage Reduction Project, dated March 2007, which was prepared by the U.S. Bureau of Reclamation (USBR) and adopted by the U.S. Army Corps of Engineers (Corps) in May of 2007. Based on these documents, the reviews of other Federal, State, and local agencies, Native American tribes, input from the public, and the review by my staff, I find the preferred alternative identified in the SEIS/EIR (Alternative 2 – Spillway Tainter Gate Modification and Combined Earthen Raise/Concrete Floodwall) is justified, in accordance with environmental statutes, in the public interest, and consistent with existing project authorizations. The benefits to be gained from implementing Alternative 2 outweigh any adverse effects. Thus, I approve Alternative 2 for the Folsom Dam Raise project.

Authorization, Purpose, and Need

The Folsom Dam Raise project was authorized under Section 101(a)(6) of the Water Resources Development Act of 1999 (Public Law 106-53), Section 128 of the Energy and Water Development Appropriations Act of 2004 (Public Law 108-137), and Section 3029(b) of the Water Resources Development Act of 2007 (Public Law 110-114). The purpose of the proposed project (Alternative 2) is to reduce flood risk downstream, particularly in the Sacramento Metropolitan Area. This project would increase the flood storage capacity of the Folsom Facility (main dam, abutment dams, dikes, Mormon Island Auxiliary Dam, Folsom reservoir) in the form of surcharge space. With added operational flexibility and enhanced management of the additional surcharge zone, flood risk reduction benefits could be realized via delayed operation of the main dam's emergency spillway gates and prolonged outflows at or below the 160,000 cfs threshold. While the current storage capacity of the reservoir (Folsom Lake) allows for passing the probable maximum flood (PMF) event, the current crest elevations of the reservoir dikes and embankment dams do not provide sufficient freeboard to meet design criteria for resisting wave height and wave run-up. A large flood event could overtop the current dikes and/or embankment dams or cause them to fail. The Folsom Dam Raise project addresses this problem by increasing the height of reservoir dikes and embankment dams, as well as making various structural modifications to the main dam's Tainter gates and other structural features.

Alternatives Considered

The final SEIS/EIR, incorporated herein by reference, briefly discussed ten action alternatives that were considered but eventually eliminated from further evaluation and therefore not analyzed in the final SEIS/EIR. The following lists these ten action alternatives, which are more

fully explained in Section 2.1.2 of the final SEIS/EIR. The cited section also discusses the reasons why each alternative was eliminated from further consideration.

- **Reduce the Stop Log Fabrication and Installation from Two Sets to Zero New Sets; Utilize Existing Set** – This alternative involved fabrication of two new sets of stop logs to allow completion of the Tainter gate refinement element of the project; to be completed in one year instead of four years.
- **Tainter Gate Refinement: Replacement of Emergency Tainter Gates** – This alternative included the complete replacement of the existing three emergency spillway Tainter gates with newly fabricated, larger Tainter gates, plus elevation and relocation of trunnions and horizontal and vertical extension of existing dam piers.
- **Refined Emergency Gate Replacement** – This alternative was basically the same as the alternative above, but it involved fabricating smaller Tainter gates and did not require modifications to trunnions and piers to the degree involved in the alternative above.
- **Tainter Gate Refinement: Horizontal Top Seal** – This alternative primarily involved construction of a new upper bulkhead and lower bulkhead to form the “horizontal top seal” that would hold back water at the main dam when the pool elevation exceeds the top of the emergency Tainter gates.
- **Tainter Gate Refinement: Skin Plate Extension** – The primary components of this alternative involved extending the skin plates of the trunnions to a height that would meet the new freeboard elevation. It would also require at least 1 additional rib support girder, additional gate strut arms, and replacement of the trunnion assemblies.
- **Dredging** – This alternative involved dredging Folsom Lake to provide the additional surcharge volume desired.
- **The 3.5-Foot Dam Raise: Concrete Floodwall** – Under this alternative, concrete floodwalls would be used to raise the effective height of all the dikes, the RWD, LWD, and MIAD.
- **The 3.5-Foot Dam Raise: Earthen Raise** – Unlike the alternative above, this one would raise the effective height of all the dikes, the RWD, LWD, and MIAD through placement of fill materials (vs. floodwalls).
- **The 3.5-Foot Dam Raise: Concrete Masonry Unit** – This alternative involved raising the effective height of all the dikes, the RWD, LWD, and MIAD through installation of reinforced concrete masonry unit walls.
- **3.5-Foot Dam Raise: Mechanically-Stabilized Earthen Cap** – This last alternative called for raising the effective height of all the dikes, the RWD, LWD, and MIAD through installation of mechanically-stabilized earthen (MSE) caps.

Elements of some of these ten alternatives were combined to form a new alternative, the preferred alternative (Alternative 2) which, together with the No Action Alternative, is the subject of detailed analysis in the final SEIS/EIR. Alternative 2 is the environmentally

preferable alternative and consists of the following three main categories of activities, which are fully described in the final SEIS/EIR:

- Tainter Gate Refinements – This includes replacing most of the components of the three emergency Tainter gates and reinforcing the five service Tainter gates of the main dam (Folsom Dam), as described in Section 2.3.1 of the final SEIS/EIR. Additional refinements to the main dam include constructing new “top seal” bulkheads, constructing vertical concrete extensions to the nine existing concrete piers; and installing a new hoist system to raise and lower the modified Tainter gates.
- Earthen Raise Elements – Dikes 1 through 8 and Mormon Island Auxiliary Dam (MIAD) will be raised approximately 3.5 feet using engineered fill materials similar to the existing composition of these features. These project elements are described in Section 2.3.2 of the final SEIS/EIR.
- Concrete Floodwall Elements – A new reinforced concrete floodwall will be constructed on the top of the Left Wing Dam (LWD) and the Right Wing Dam (RWD), as described in Section 2.3.3 of the final SEIS/EIR.

All practicable means to avoid, minimize, rectify, reduce, and compensate for potential adverse environmental effects, and measures to conserve federally listed species were analyzed and incorporated into Alternative 2. These mitigation measures include, but are not limited to; various best management practices (BMPs), pre-construction biological surveys, construction contractor environmental protection training, physical demarcation of sensitive habitat to be avoided during construction, and obtaining all required permits. Mitigation measures address recreation resources, vegetation and wildlife, special status species, air quality, climate change, aesthetics and visual resources, traffic and circulation, noise, water quality and Waters of the United States, and cultural resources. The adopted means to avoid, minimize, and compensate for environmental impacts potentially generated by the construction of Alternative 2 are described in the final SEIS/EIR and are summarized in the Attachment to this Record of Decision (ROD). This attachment also summarizes other environmental commitments pertaining to Alternative 2.

Responses to Comments Submitted for the Draft SEIS/EIR

The Draft SEIS/EIR was circulated for public review for 64 days beginning on July 19, 2016. Public workshops were held on July 25, 2016 and July 27, 2016. Numerous changes were made to the initial draft SEIS/EIR following the close of the first public review period. These revisions included addressing substantive comments received during the first public review period. The revised draft SEIS/EIR was circulated for a 45-day public review period beginning on June 17, 2017. All comments received by the close of the second public review period were considered, and substantive comments were addressed in the final SEIS/EIR dated October 2017. Specifically, Appendix H of the final SEIS/EIR contains the public and agency comments received along with responses to these comments, while Appendix G documents coordination with Native American tribes regarding Alternative 2 as well as comments submitted by such tribes and responses to these comments.

Other Applicable Laws and Policies

Clean Air Act (CAA) of 1972, as Amended: Alternative 2 has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the CAA. Implementation of various BMPs and related emissions reduction measures during construction are mitigation components described in the final SEIS/SEIR (see Section 3.6) and adopted in this ROD (see Air Quality section of the Attachment). These measures will result in emissions that would not exceed the U.S. Environmental Protection Agency's General Conformity *de minimis* thresholds.

Clean Water Act (CWA) of 1972, as Amended: Alternative 2 will not involve direct impacts to jurisdictional wetlands or watercourses (drainage swales, ditches, rivers, etc.), and such features will be protected. Project construction may require limited removal and subsequent placement of riprap within the jurisdictional limits of Folsom Lake when raising certain dikes and the MIAD. This would result in temporary impacts to the lake, but there would not be appreciable loss of lake acreage or volume and the impact to aquatic functions and values would be *de minimis*. The proposed construction of a temporary detour for Park Road would directly impact approximately 0.6 acre of Folsom Lake. This detour road would be completely removed after less than 2 years, with pre-construction topography restored in the affected portion of the lake. Potential effects on water quality were evaluated in the Final SEIS/EIR (see Section 3.11). BMPs are included in Alternative 2 and a National Pollutant Discharge Elimination System (NPDES) permit will be acquired prior to initiating construction. Furthermore, a CWA Section 401 Water Quality Certification will also be acquired for the Park Road detour as well as any project phase that requires removal or deposition of riprap within the jurisdictional limits of Folsom Lake.

Endangered Species Act (ESA), of 1973, as Amended: The U.S. Fish and Wildlife Service (USFWS) issued a biological opinion (BiOp) for Alternative 2 (identified in the BiOp as the "Folsom Dam Safety/ Flood Damage Reduction Project" and the "Folsom Dam Modification Project") on October 13, 2016. The consultation addressed the effects of Alternative 2 on the federally-listed as threatened valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). The project is not within designated or proposed critical habitat for any federally-listed species. The one term and condition included with the incidental take statement requires implementation of all conservation measures described in the Corps' biological assessment and restated in the biological opinion. These conservation measures are incorporated into Alternative 2 and are identified in the Attachment to this ROD (see Special Status Species/Listed Species section of the attachment). USFWS determined that the project, with the Corps' conservation measures, will not jeopardize the existence of federally listed species or modify designated critical habitat.

National Historic Preservation Act (NHPA) of 1966, as Amended: The Corps has completed Section 106 consultation with the State Historic Preservation Officer (SHPO). All evaluations of resource identification, determinations of significance, and determinations of project effects meet the requirements of 36 CFR 800 (procedures for implementing Section 106). The Corps determined that the proposed undertaking would not result in adverse effects to historic properties. In a letter dated March 2, 2017, the SHPO stated that she did not object to the Corps' *finding of no adverse effect to historic properties* affected for this undertaking. The Corps has

also consulted with the Wilton Rancheria, the Tsi-Akim Maidu of the Taylorsville Rancheria, the Shingle Springs Band of Miwok Indians, and the United Auburn Indian Community of the Auburn Rancheria (UAIC) in an effort to identify sites of religious and cultural significance that could be affected by the proposed undertaking. The UAIC requested that a portion of a proposed project staging area shown in the draft SEIS/EIR not be used due to its close proximity to a known cultural resource. The Corps subsequently revised the boundaries of this staging area to avoid the resource entirely. The final SEIS/EIR illustrates and evaluates this revised staging area.

Fish and Wildlife Coordination Act (FWCA) of 1934, as Amended: The Corps has given full consideration to the report and recommendations of the Secretary of Interior (through USFWS) as provided in USFWS' *Final Supplemental Fish and Wildlife Coordination Act Report, Folsom Dam Safety/Flood Damage Reduction Project, Folsom Dam Raise*, dated October 24, 2016. This report's recommendations and the Corps' responses to these recommendations are contained in Appendix H of the final SEIS/EIR. Measures to help avoid, minimize, and mitigate the project's adverse impacts to wildlife and their habitats are summarized in the Vegetation & Wildlife section of the Attachment to this ROD, and are fully addressed in Section 3.4 of the final SEIS/EIR.

Migratory Bird Treaty Act (MBTA) of 1918: Alternative 2 is located in an area which has experienced active construction since 2008. Alternative 2 will likely have limited impacts to migratory birds during project construction. Measures to help avoid, minimize, and mitigate the project's impacts to migratory birds are summarized in the Special Status Species (Listed Species) section of the Attachment to this ROD. These measures are also addressed in Section 3.5 of the final SEIS/EIR.

Bald and Golden Eagle Protection Act of 1962, as Amended: Golden eagles are not known to occur in the region encompassing Alternative 2. However, bald eagles have been documented in the general area. Alternative 2 will incorporate measures to help ensure bald eagles are not adversely affected by project construction activities. Potential project impacts to bald eagles and measures to help avoid and minimize adverse impacts to these birds are discussed in Section 3.5 of the final SEIS/EIR, while the adopted measures to avoid/minimize impacts are summarized in the Special Status Species (Listed Species) section of the Attachment to this ROD.

Noise Control Act of 1972, as Amended: Alternative 2 will result in elevated noise levels during project construction. The final SEIS/EIR addresses construction noise in Section 3.10. Measures adopted to help minimize adverse noise impacts to sensitive receptors are summarized in the Noise section of the Attachment to this ROD.

Executive Order (EO) 11988, Protection of Wetlands: Alternative 2 includes all practicable measures to avoid loss of wetlands and fully complies with this Executive Order. Various BMPs and other measures that will be employed during project construction to help avoid and minimize project impacts to wetlands and other jurisdictional Waters of the United States are summarized in the Water Quality & Waters of the United States section of the Attachment to this ROD, and are addressed in Sections 3.4 and 3.11 of the final SEIS/EIR.

Executive Order (EO) 13112, Invasive Species: The proposed project (Alternative 2) incorporates actions that will help prevent and control the introduction of invasive plant species to lands directly affected by the project. These actions (measures) are addressed in Section 3.4 of the final SEIS/EIR, and are summarized in the Vegetation and Wildlife section of the Attachment to this ROD.

Unavoidable Environmental Effects

Although all practicable means to mitigate adverse effects on environmental resources have been incorporated into Alternative 2, some unavoidable effects remain. These effects are described in the final SEIS/EIR and summarized below.

- Recreational Resources – Construction will result in temporary degradation of public recreational experiences in and adjacent to the project. Noise, visual aesthetics, and access would be compromised during project construction from late 2018 to late 2022. While adverse impacts to recreational resources will be temporary, these impacts will be significant even with implementation of mitigation measures described in the final SEIS/EIR.
- Noise – Construction will result in temporary increases in noise levels, affecting local recreationists and adjacent residents. Alternative 2 will employ measures to mitigate the temporary noise impacts; however, these impacts will still be significant.
- Traffic and Circulation – Construction will temporarily increase traffic in the project area and may significantly disrupt traffic flow and/or travel times. Despite the mitigation measures discussed in the final SEIS/EIR, temporary traffic impacts will likely be significant during portions of the project construction period.
- Vegetation and Wildlife – Construction of Alternative 2 will directly impact relatively natural habitats/vegetation associations including annual grasslands, oak woodlands, and oak savannas. Disturbance of these habitats and general construction noise and traffic will temporarily impact wildlife utilizing areas within and immediately adjacent to construction areas, and may result in the direct mortality of a limited number of animals. With the implementation of the mitigation measures discussed in the final SEIS/EIR, including compensatory mitigation for the loss of any oak woodland and oak savanna habitats, Alternative 2's net impacts to vegetation and wildlife will not be significant.
- Special Status Species – The valley elderberry longhorn beetle (VELB) is federally listed as Threatened. Its host plants are elderberry shrubs. Construction of Alternative 2 will likely necessitate removal of some elderberry shrubs, thereby adversely affecting the VELB. Conservation measures incorporated into Alternative 2 include transplantation of elderberry shrubs that occur within the construction footprint (where feasible), implementation of measures to protect elderberry shrubs within 100 feet of the construction footprint, and purchasing credits from a USFWS-approved conservation bank as compensatory mitigation for those elderberry shrubs that must be removed. Thus, the project's impacts to the VELB would be less than significant with mitigation.

Migratory birds will likely be adversely affected during project construction and there also may be limited temporary impacts to bald eagles. Implementation of the mitigation measures set forth in the final SEIS/EIR will render these temporary impacts insignificant.

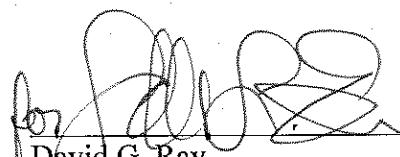
- Air Quality – Air quality in the immediate vicinity will be temporarily degraded during construction of Alternative 2. There will be increased concentrations of reactive organic gases, oxides of nitrogen (NO_x), carbon monoxide, particulate matter (PM), and oxides of sulfur. Through implementation of the mitigation measures described in the final SEIS/EIR, these construction emissions are not anticipated to exceed any applicable Federal thresholds. However, PM10 emissions will likely exceed applicable thresholds adopted by the local Air Quality Management Districts (AQMDs) during three years of the four-year overall project construction period. Should PM or NO_x emissions actually exceed local AQMD thresholds during the construction of a given project phase, compensatory mitigation will be provided. BMPs will substantially reduce the potential release of any dust containing naturally occurring asbestos. Overall, air quality impacts will be less than significant with mitigation.
- Climate Change (Greenhouse Gases) – Various “greenhouse gases” will be emitted by vehicles and machinery during construction of Alternative 2. The carbon dioxide equivalent (CO₂e) is a common means of quantifying such gases. Construction activities should not produce CO₂e values that exceed the Placer County Air Pollution Control District’s adopted threshold of 10,000 metric tons of CO₂e per year. If unforeseen circumstances result in an exceedance of this threshold, compensatory mitigation in the form of purchasing carbon credits will be provided. Project construction will likely exceed the Sacramento Metropolitan Air Quality Management District’s threshold of 1,100 metric tons of CO₂e per year during each of the four years of overall project construction. Compensatory mitigation for these exceedances will be provided by purchasing carbon credits. The project’s overall effects on climate change, via temporary emission of greenhouse gases, will be less than significant with mitigation.
- Aesthetics/Visual Resources – The existing visual character and quality of the affected dikes, dams, and temporary construction staging areas will be temporarily degraded during construction of Alternative 2, and certain viewsheds will be degraded during construction. Most heavily disturbed staging areas will be restored to mimic pre-construction conditions following completion of the project. Alterations to the dikes, RWD, LWD, MIAD, and the main dam will not appreciably change the visual character of these features. Given adoption of the mitigation measures addressed in the final SEIS/EIR, Alternative 2’s impacts to aesthetics/visual resources will be less than significant.
- Water Quality and Waters of the United States – Localized surface water quality will be somewhat degraded during construction of Alternative 2. This degradation is anticipated as a result of project site stormwater runoff carrying sediments and other erosion factors. In turn, the stormwater runoff may temporarily degrade water quality in receiving Waters of the United States (WOUS), such as Folsom Lake, nearby wetlands, and drainage

ditches and swales. Alternative 2 will not directly impact any jurisdictional wetlands, but may require the removal of riprap from within the jurisdictional boundaries of Folsom Lake and the subsequent replacement of new riprap. Such impacts will not result in a net loss of lake functions and values, nor an appreciable loss of lake acreage or storage volume. Construction of the WP3 project phase will include building a temporary detour for a segment of Park Road. This detour will result in the temporary loss of 0.6 acre of Folsom Lake. However, the affected portion of the lake would be restored near the end of WP3 construction thereby resulting in no long-term loss of lake acreage, volume, or aquatic functions and values. Implementation of the mitigation measures described in the final SEIS/EIR, including obtaining NPDES permits and, when necessary, CWA Section 401 Water Quality Certification prior to construction, will render project impacts to water quality and jurisdictional WOUS less than significant.

Findings

All applicable laws, executive orders, regulations and local government plans were considered in the evaluation of alternatives. Based on a review of these evaluations, I find that the flood risk management (monetary and non-monetary) benefits potentially provided by Alternative 2 (the proposed project) outweigh the costs and any adverse effects. This Record of Decision (ROD) completes the National Environmental Policy Act process. No action related to the proposal under consideration in the final SEIS/EIR was taken prior to the end of the 30-day review period after posting of the final SEIS/EIR on October 6, 2017. The ROD will be publicly available upon request, or can be found on the Corps' Sacramento District website.

12/18/17
Date



for
David G. Ray
Colonel, U.S. Army
District Engineer

ATTACHMENT

**RECORD OF DECISION, FOLSOM DAM RAISE PROJECT:
SUMMARY OF ENVIRONMENTAL COMMITMENTS FOR ALTERNATIVE 2 (PROPOSED PROJECT)**

ID #	DESCRIPTION	RECREATION
R-1	Prior to construction that may affect recreational resources, public outreach would be conducted through mailings, posting signs, coordination with interested groups, and meetings (if necessary) in order to provide information regarding changes to recreational access within the FLSRA.	
R-2	The construction contractor would be required to: (1) Utilize traffic control measures, security fencing and/or temporary alternate public access detours for pedestrian, equestrian, bicycle and vehicular traffic; (2) Post warning and restricted access signs before and during construction as necessary.	
R-3	A temporary recreational detour trail would be established by the construction contractor to help mitigate the temporary loss of the existing trail/roadway that runs along the crests of Dikes 4 through 6 and along the roadway/trail connecting these dikes.	
R-4	A temporary Park Road detour would be built prior to project construction activities that force temporary closure of Park Road during the raising of Dike 1. This detour road would include an 8-foot wide multi-use "trail" adjacent to one of the two vehicle lanes. A temporary detour road would be built to serve as the entry to the Granite Bay Main Beach parking lot prior to closing the existing entry road for project construction purposes. Another temporary detour road to the Granite Bay Activity Center would be built prior to closing a segment of the existing access road for project construction purposes. These temporary roads would be removed once they are no longer needed.	
R-5	Raising of the existing access road to the Granite Bay Horse Assembly Area would be prioritized for rapid completion to minimize the time this access road must be closed for project construction.	
R-6	Prior to raising MIAD, a temporary detour trail would be established on the west (north) side of Green Valley Road to help mitigate the temporary loss of the existing trail/road that runs along the crest of MIAD. The existing Mormon Island Cover Parking Area would either be preserved during project construction or would be temporarily relocated to a site in close proximity to the existing parking area.	
R-7	Concrete Jersey barriers (K-rails) would be installed adjacent to the east side of the Beals Point RV Campground during the raising of Dike 6 to help prevent large rocks or similar objects from potentially rolling into the campground. These barriers would be removed after the dike is raised.	
R-8	Project construction traffic would not use the main public entrance to the Granite Bay recreation area or the main public entrance to the Beals Point recreation area except for special circumstances (ex. emergency access, hauling equipment that cannot access the project sites by the main construction access roads, etc.). Any use of the main public entrances cited would be coordinated with State Parks Folsom Sector Superintendent.	
R-9	Existing FLSRA recreation facilities adversely altered or damaged as a result of project construction work would be restored by the construction contractor.	
R-10	Paved roads and parking areas within the FLSRA that are damaged during project construction would be appropriately repaired by the construction contractor in cases where it can be documented that the damage was the direct result of project construction activities rather than damage caused by other sources.	
VW-1	VEGETATION AND WILDLIFE The construction contractor would be required contractor to implement dust control measures consistent with SMAQMD fugitive dust control measures.	

VW-2	The construction contractor would be required to clean vehicles and equipment before first entering the project site.
VW-3	For each phase of the project, the Corps would prepare final construction plans that would include drawings identifying habitat areas that must be protected and specifying the methods of protection. These plans would be accompanied by written project specifications further detailing the habitat protection requirements, as well as general requirements concerning the protection of vegetation and wildlife. The final construction plans would also illustrate and/or describe those areas/lands near the project features that are outside the limits of construction (and thus must be protected from direct construction impacts).
VW-4	Native trees and shrubs having a DBH of 2 inches or greater, located within the limits of construction of a particular project phase, would be preserved to the extent practicable. The construction contractor would establish protective buffers (ex. temporary fencing) around the driplines of those trees and shrubs to be preserved that are located within the limits of construction. Native trees located outside the limits of construction would be preserved. The construction contractor would also erect protective buffers along the limits of construction where these limits are in close proximity to the adjacent trees and shrubs to be preserved. Any required trimming of native trees or shrubs would be conducted by, or under the direct supervision of, a certified arborist.
VW-5	Near the end of each phase of the overall project, the Corps would determine the approximate acreage of oak woodland habitat and oak savanna habitat eliminated as a result of construction activities. Once the total acres of each of the two habitat types is known, the Corps would develop a mitigation plan to compensate for these losses. Compensatory mitigation would involve creation or restoration of the affected habitat types. The minimum ratio of the acres of each type of habitat to be restored or created, per acre of each type lost, would be 1.2:1. The mitigation goal would be to create or restore habitat where the density of canopy tree species and midstory woody species is approximately the same as the average density of canopy tree species and midstory woody species found in the impacted habitats. The ground cover stratum would be restored through the planting of various native grasses and forbs, while the species composition of the midstory and canopy strata would strive to mimic that of the affected habitats. The restored areas would be managed and monitored by the Corps (or the Corps' contractor) for 5 years, although this period could be reduced to 4 years if success criteria are achieved by that time. The mitigation site(s) would be selected in coordination with USFWS, the Department of Water Resources (DWR), and SAFCA. The overall mitigation plan would also be prepared in coordination with these agencies. If on-site mitigation (which is preferred) proves to be a viable option, such coordination would also include USBR.
VW-6	Project impacts to migratory birds, including bald eagles, Swainson's hawks, loggerhead shrikes, and white-tailed kites, would be avoided or minimized to the degree practicable by following the avoidance, minimization, and mitigation measures for such species that are identified in the Special Status Species (Listed Species) section of this table.
VW-7	The Corps would ensure that all construction personnel undergo environmental protection training to be aware of all required environmental protections per the final construction plans and specifications, as well as those required by applicable federal and state laws.
VW-8	The construction contractor would be required to place food related wastes in self-closing trash containers.
VW-9	After completing construction activities within a given project phase, disturbed portions of the staging areas used for that project phase would be restored by the construction contractor. One exception to this generalization would be in cases where a particular staging area is also going to be used for a subsequent project phase. In such cases, the shared staging area would not be restored until the final project phase to use the staging area is completed. Another exception would be for staging areas, or portions thereof, that encompass permanent man-made features. Such areas would not be restored. Restoration of staging areas would first involve restoring pre-construction topography to the degree practicable. Next, a mixture of native grass and forb seeds would be planted throughout disturbed portions of staging areas in order to establish a permanent vegetative groundcover. The planted areas would be periodically monitored until the average ground cover accounted for by native grasses and forbs reaches approximately 75 to 80 percent.
VW-10	Revegetated areas would be monitored for invasive plant species by Corps staff during the construction contract warranty period of a given project phase. The term "invasive plant species" refers to those plants listed in the California Invasive Plant Inventory database generated by the California Invasive Plant Council, and having an invasive rating of "high" or "moderate". If it is determined that invasive plants are becoming established, such plants would be eradicated by the construction contractor through directed herbicide applications, physical removal, or both. The goal would be to control invasive plant species such that they account for 5 percent or less of the average total plant cover.

VW-11	Prior to initiating construction of a given project phase, Corps staff would conduct an assessment of drainage depressions, channels, and ditches present at the project site to determine whether any such features provide water to wetlands. Corps staff would also delineate the approximate limits of jurisdictional wetlands located within or immediately adjacent to the project's limits of construction. The construction contractor would be required to maintain flows in those drainage features that are found to provide water to wetlands. Direct construction impacts to wetlands would be prohibited.
VW-12	Once the Park Road detour road segment (an element of the project phase that includes Dikes 1, 2, and 3) is no longer needed for the proposed project, this road segment would be removed. Topography altered by construction of the road would be restored to approximately match pre-construction topography, and natural areas disturbed by road construction would be planted with native grasses and forbs.
SPECIAL STATUS SPECIES (LISTED SPECIES)	
LS-1	As project design plans are developed and refined, the Corps, to the degree practicable, would adjust the limits of construction to avoid removal of existing native trees, large shrubs, and elderberry shrubs having one or more stems measuring 1.0 inch or greater in diameter at ground.
LS-2	Prior to starting construction activities for a given phase of the project, Corps biologists would survey areas within approximately 1,000 feet of the areas slated for construction in the given phase to determine whether any bald eagle nests are present. If any nests are discovered, and regardless of whether a nest is classified as active, inactive/alternate, or abandoned, the Corps would coordinate with USFWS staff and California Department of Fish & Wildlife (CDFW) staff to determine measures necessary to avoid, minimize, or mitigate potential adverse construction impacts to bald eagles, and then would implement appropriate measures. Such measures could include not conducting project construction work within 660 feet of an active bald eagle nest, or monitoring the behavior of eagles tending an active or alternate nest for signs of stress and potential nest abandonment during the nesting season.
LS-3	Prior to beginning construction of a particular project phase, Corps biologists would survey areas within the immediate project vicinity to determine whether any active loggerhead shrike nests are present. If any nests are discovered, the Corps would coordinate with CDFW staff to determine measures necessary to avoid, minimize, or mitigate potential adverse construction impacts to the nest. Corps biologists would also survey areas within 0.25 miles (1,320 feet) of construction areas to determine if Swainson's hawk nests or white-tailed kite nests are present. Swainson's hawk surveys would be completed in compliance with the CDFW survey guidance. Other migratory bird nest surveys can be conducted concurrent with the Swainson's hawk surveys, with at least one survey conducted no more than 48 hours from the initiation of project construction activities to confirm the absence of nesting. If these surveys find there are active Swainson's hawk nests or active white-tailed kite nests present within the defined areas, CDFW would be contacted to determine the proper course of action. If necessary, buffers would be established around active nests with no construction allowed within the buffer zones until fledglings have left the nests. An alternative approach might involve monitoring active nests in close proximity to project construction areas for signs of stress exhibited by the adult birds, which could lead to nest abandonment.
LS-4	Prior to initiating construction activities for a particular phase of the overall project, Corps biologists would conduct surveys for migratory bird nests situated within the limits of construction as well as such nests located within approximately 250 feet of these limits. If the initial surveys do not take place during the migratory bird nesting season, then Corps biologists would again conduct surveys for migratory bird nests at the beginning of the nesting season in a similar manner. If inactive nests are found (e.g. nests that do not contain eggs or chicks), these would be removed to help prevent birds from re-using the nests. If active nests are found, the following would be followed: (1) If active migratory bird nests are discovered within the project limits of constructions, buffer areas would typically be established by the construction contractor around each nest and construction activities within the buffer(s) would be prohibited until the young occupying the nests have fledged. The Corps would coordinate with USFWS and CDFW staff to determine the appropriate size of such nest buffer zones. Similarly, if active migratory bird nests are documented within approximately 250 feet of the project's limits of construction, buffer areas would also be established around these nests as well; (2) If it is not practicable for project construction activities to avoid direct impacts to active migratory bird nest, the Corps would obtain a Special Purpose Permit (Migratory Bird Permit) from USFWS prior to impacting the active nests. This permit would authorize live-trapping and relocation of the affected active nests and the eggs or chicks occupying the nests. Chicks and/or viable eggs collected by qualified Corps staff pursuant to the permit would be taken to a wildlife care/rehabilitation facility.

LS-5	The construction contractor would be required to report any active or inactive migratory bird nests to the Corps within 24 hours of discovery of such nests.
LS-6	Prior to construction of a particular project phase, Corps environmental staff would perform field surveys to locate elderberry shrubs having one or more stems measuring 1.0 inch or greater in diameter at ground level that are within or in close proximity to the project phase's limits of construction.
LS-7	Construction personnel would receive USFWS-approved worker environmental awareness training to ensure that workers recognize elderberry shrubs and the valley elderberry longhorn beetle (VELB). The training would include: the protected status of VELB and their host plants, elderberry shrubs; the need to avoid adversely affecting elderberry shrubs; elderberry shrub avoidance areas (protective buffers/exclusion zones); measures to be taken by workers during construction to protect elderberry shrubs; possible penalties that could be imposed for not complying with requirements established for the protection of elderberry shrubs and VELB.
LS-8	Where practicable, a minimum setback (buffer) of 100 feet from the drip-line of all elderberry shrubs containing stems measuring 1.0 inch or greater in diameter at ground level would be established. There may be instances where a 100-foot buffer is not practicable due to various constraints. In such cases, a buffer of at least 20 feet from the drip-line of such elderberry shrubs would be established, if feasible. The Corps will consult with USFWS prior to establishing any elderberry shrub buffer zones (setbacks) that extend less than 100 feet from the drip-line of a particular shrub. Prior to project construction activities near elderberry shrubs to be preserved, temporary protective barriers would be installed along the limits (boundaries) of approved elderberry shrub buffer zones (exclusion areas). No construction activities or similar disturbances would be allowed within the elderberry shrub buffer zones unless authorized in advance by the Corps and USFWS. In situations where elderberry shrubs to be preserved are located more than 100 feet from the project's limits of construction, protective barriers may not be installed if existing landscape conditions are such that inadvertent damage to the shrubs during construction is unlikely. The contractor would install signs approximately every 50 feet along the edge of any protective structural barriers. The signs would include the text: "This area is the habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs would be readable from a distance of 20 feet and would be maintained during project construction.
LS-9	Any damage done within elderberry shrub buffer zones during the course of project construction would be remediated by the construction contractor shortly following the discovery of such damage. Remediation work may include installing erosion control measures, seeding disturbed areas with appropriate native plant seeds, etc.
LS-10	No insecticides, herbicides, fertilizers, or other chemicals that might harm the VELB or its host plant would be used in elderberry shrub buffer zones, or within 100 feet of any elderberry shrub with one or more stems measuring 1.0 inch or greater in diameter at ground level.
LS-11	If mowing of vegetation is deemed necessary to reduce fire hazard, such mowing may be performed within elderberry shrub buffer zones but only during the period from July through April. No mowing would be allowed within 5 feet of elderberry shrub stems, and all mowing would be done in a manner that avoids damaging elderberry plants.
LS-12	If direct construction impacts to elderberry shrubs (limited to those having at least 1 stem with a diameter of at least 1.0 inch as measured at ground level) are unavoidable, the Corps would purchase an appropriate number of credits from a USFWS-approved conservation bank as compensatory mitigation for such impacts. The number of conservation credits required would be based on methodologies prescribed in the USFWS's 1999 conservation guidelines for VELB (the "VELB Guidelines") and direct coordination with USFWS staff. The Corps would also contract with the same conservation bank from which the conservation credits are purchased to transplant the affected elderberry shrub(s) from the project site to the conservation bank. The affected shrubs would be transplanted when the plants are dormant (roughly November through the first 2 weeks in February) if feasible. The contractor (the conservation bank) would be required to follow the transplanting procedure set forth in VELB Guidelines and Corps staff would monitor the removal of the shrubs from the project site.

L2-13	The process for evaluating the potential impacts to VELB in a given project phase would be as follows: (1) Designate elderberry shrubs that would be preserved and the protective buffers associated with each of those shrubs; (2) Designate shrubs that would have to be removed/transplanted, and determine the number of conservation credits that would have to be purchased to compensate for those shrubs that must be transplanted; (3) Submit a request for reinitiation of Endangered Species Act Section 7 consultation to USFWS that contains seeks concurrence with the Corps' effects determination and the Corps' proposed avoidance, minimization, and compensatory mitigation measures; (4) Proceed with construction of a given phase following receipt of the USFWS's Biological Opinion (e.g. amendment to Service File 08ESMF00-2017-F-0043).
LS-14	During project construction and/or restoration activities that involve earthwork, measures would be employed to suppress generation of dust. Such measures would include frequent watering of project haul roads, earthen stockpile areas, and similar exposed soil surfaces.
AQ-1	AIR QUALITY Require construction contractor to: (1) Develop an Asbestos Dust Mitigation Plan (ADMP) that conforms to requirements set forth in the State of California's Asbestos Airborne Toxic Control Measures (Asbestos ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations; (2) Submit the ADMP to applicable local Air Quality Management Districts for approval, and; (3) Implement the approved ADMP in areas where project construction would involve disturbing lands that may harbor naturally occurring asbestos.
AQ-2	Require construction contractor to implement the following fugitive dust mitigation measures: (1) Limit vehicle speeds on unpaved roads to 15 mph; (2) Water at least every 2 hours of active construction, or often enough to keep disturbed areas adequately wet; (3) Remove all visible track-out from a paved public road at any location where vehicles exit the work site; (4) Install track-out prevention measures approved by the Corps; (5) Pre-wet the ground to the depth of anticipated cuts; and (6) Suspend any excavation operations when wind speeds are high enough to result in dust emissions across property lines.
AQ-3	Require construction contractor to implement the following enhanced fugitive particulate matter dust control measures: (1) Water exposed soil to keep moist but do not allow sediment flows off site; (2) Suspend excavation, grading and/or demolition activity when wind speeds exceed 20-mph; (3) Install wind breaks on windward sides of construction areas; (4) Plant vegetative ground cover in disturbed areas as soon as possible; (5) For unpaved construction roads – (a) Install wheel washers or wash off all and equipment leaving the site; (b) Treat site access to a distance of 100 feet from the paved road with a 6-12 inch layer of wood chips, mulch or gravel; (c) Post a publicly visible sign with, the telephone number and person to contact at the lead agency regarding dust complaints that would be corrected within 48 hours of receipt, and the numbers of the Air Quality Management District (AQMD) of Sacramento, Placer and El Dorado, depending on jurisdiction.
AQ-4	Require construction contractor to implement the following basic emissions control practices: (1) Minimize idling time of equipment not in use to 5 minutes and post clear signage of this requirement for workers at site entrances; (2) Maintain all construction equipment in proper working condition and have equipment checked before operation by a certified mechanic; (3) Water exposed surfaces twice per day; (4) Cover or maintain at least 2 feet of free board space on trucks transporting soil, sand or other loose material onsite and all haul trucks slated for travel along freeways or major roadways must be covered; and (5) Limit vehicle speeds on unpaved roads to 15 mph.
AQ-5	Require the construction contractor implement the following enhanced exhaust control practices: (1) Provide a plan to the Corps and applicable AQMDs demonstrating heavy-duty off road vehicles used in the construction project would achieve a project-wide fleet average 20% reduction in NOx, and 45% reduction in particulate compared to the most recent CARB fleet average. This plan would be submitted prior to construction and in conjunction with equipment inventory composed of off road construction equipment with a 50 hp or greater rating that would be used an aggregate of 40 hours or more during any portion of the construction project; (2) Update the construction equipment inventory monthly except for any 30-day period in which no construction activity occurs and submit this to the Corps and applicable AQMDs; and (3) Ensure that emissions from all off road diesel-powered equipment used onsite do not exceed 40% opacity for more than 3 minutes in any 1 hour, with non-compliant equipment repaired immediately and documented with a summary provided to the Corps and the appropriate AQMDs on a monthly basis.

AQ-6	<p>Require the construction contractor comply with the following additional air quality mitigation measures: (1) Model year 2010 or newer haul trucks must be used for the duration of the project. If an occasion arises where there is limited availability of MY 2010 or newer haul trucks, the contractor would need to demonstrate that MY 2010 or newer trucks are not available and get authorization from the Corps; (2) All off road diesel-powered construction equipment of greater than 50 hp will meet Tier-4 off road emission standards, where available. If a certain tier engine is not available, that equipment would be equipped with the next lower tier engine or an engine equipped with retrofit controls to reduce emissions of NOx and diesel PM to no more than the next available tier, unless certified by engine manufacturers that the use of such devices is not practical for specific engine types, and any uses of heavy-duty off road diesel equipment that does not meet Tier 4 emissions standards would first require approval by the Corps; (3) All construction equipment would be equipped with best available technology devices certified by CARB. Any emission control device would achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations; and (4) Construction equipment would incorporate emissions-reducing technology and idling would be restricted to a maximum of 5 minutes except as provided in the CARB 13CCR, Section 2485 exceptions.</p>
AQ-7	<p>Require the construction contractor to comply with the following off-site compensatory mitigation measures: (1) Provide the Corps and the applicable local AQMDs with updated and revised air quality emissions estimates prior to beginning project construction activities on a given phase. If the estimates indicate the applicable PM10 threshold and/or the PM2.5 threshold would be exceeded, the contractor would coordinate with the AQMDs in which the excess emissions occurred to determine the level of mitigation and administrative fees, if any, that must be paid; (2) Provide monthly estimates of actual PM10 and PM2.5 emissions to the Corps and the applicable AQMDs once construction activities begin, indicating, if necessary, in which AQMD jurisdiction the emissions occurred. When a monthly report indicates PM emissions exceeded the applicable local AQMD threshold, the contractor would be required to pay the appropriate mitigation fee and associated administrative fee to the local AQMD in which the excess emissions occurred; and (3) Provide monthly reports of estimated actual NOx emissions and if NOx thresholds are exceeded, the contractor would pay the appropriate mitigation fee and associated administrative fee to the local AQMD in which the excess emissions occurred.</p>
<i>CLIMATE CHANGE</i>	<p>The contractor would be required to submit monthly estimates of actual construction emissions to the Corps and applicable local AQMDs. If these monthly reports show that emissions may eventually exceed 25,000 metric tons (MT) CO2e per year (federal threshold), 10,000 MT CO2e per year (Placer County Air Pollution Control District threshold), or 1,100 MT CO2e per year (SMAQMD threshold), the contractor would be required to prepare a greenhouse gas (GHG) emissions reduction plan for approval by the Corps, then implement the approved plan. Elements of such a plan could include the following: (1) Minimize the idling time of construction equipment to no more than 3 minutes, or shut equipment off when not in use, (2) Encourage carpools, shuttle vans, and/or alternative modes of transportation for construction worker commutes, (3) Use of CARB approved low carbon fuel, and (4) Use of equipment with new technologies.</p> <p>If actual CO2e emissions during construction of a given project phase do exceed the Federal threshold (25,000 MT CO2e per year), the PCAPCD threshold (10,000 MT CO2e per year), or the SMAQMD threshold (1,100 MT CO2e per year) then compensatory mitigation would be provided in the form of purchasing sufficient carbon credits to mitigate for the excess CO2e. Carbon offset credits would be purchased from a carbon registry that is acceptable to the applicable local Air Quality Management District and the Corps. Note that the provision of compensatory mitigation would only be required under the following scenarios: (1) Project construction emissions that occur within Placer County exceed the PCAPCD threshold of 10,000 MT CO2e per year; (2) Project construction emissions that occur within Sacramento County exceed the SMAQMD recommended threshold of 1,100 MT CO2e per year; or (3) Project construction emissions exceed the Federal threshold of 25,000 MT CO2e per year, regardless of the county in which the emissions are generated.</p>
<i>AESTHETICS & VISUAL RESOURCES</i>	<p>AV-1 The Corps would make modification to the dikes and dams in phases, limiting the extent of construction affecting viewsheds at any one time.</p>

AV-2	<p>The construction contractor would:</p> <ul style="list-style-type: none"> (1) Preserve existing native trees to the extent practicable; (2) Locate staging areas on previously disturbed lands where feasible; and (3) Following construction, restore staging areas to pre-construction topography to the degree practicable and hydroseed the areas with native grasses and forbs. <p>Exceptions to this measure would include:</p> <ul style="list-style-type: none"> (a) Staging areas on the lake side of Dikes 4, 5, and 6; (b) Staging areas situated on existing urban disturbed lands, with the exception of the Dike 7 Office Complex staging area, would not be restored, but would instead be returned to conditions present prior to the project. 	<p>TRAFFIC & CIRCULATION</p>	
TC-1	<p>Prior to starting construction, the contractor would be required to prepare a traffic management plan for approval by the Corps and would then implement the approved plan. This plan would outline proposed travel and haul routes along with proposed traffic management/maintenance/safety measures.</p>	TC-2	<p>High collision intersections would be identified by the Corps and avoided by project construction vehicles and equipment if possible.</p>
TC-3	<p>Construction vehicle and haul truck drivers would be informed and trained on the various types of access and haul routes, as well as areas that are more sensitive to traffic increases.</p>	TC-4	<p>The construction contractor would develop and use signs to inform the public of the construction access routes and haul routes, route changes, detours, and planned road closures to minimize traffic congestion and help ensure public safety.</p>
TC-5	<p>Prior to beginning construction at Dike 1, the construction contractor would build a new, temporary, paved 2-lane roadway segment extending northward from a location south of Dike 1 to Park Road, north of this dike. This temporary roadway segment would function as a public detour route around that portion of Park Road that would be directly impacted by project construction. The construction contractor would remove this detour road upon completion of raising Dikes 1 through 3.</p>	TC-6	<p>Prior to beginning construction of the proposed new temporary access and dedicated right turn lane off Auburn-Folsom Road across from Bell Drive (e.g. primary ingress/egress route when raising Dikes 4 through 6), the contractor would be required to obtain an encroachment permit from Placer County Department of Public Works and Facilities. The contractor's application must include a detailed paving plan, traffic control, and signage plan, along with any other information Placer County requires for permit issuance.</p>
			<p>NOISE</p>
N-1	<p>Construction noise would be limited in accordance with timeframes and requirements in the City of Folsom, Sacramento County, and Placer County Noise Ordinance exemption for construction. If construction must occur outside of the exempted timeframe in the vicinity of sensitive receptors, the construction contractor would be required to meet the City of Folsom exterior noise thresholds.</p>	N-2	<p>To help minimize construction noise effects to campers utilizing the Beals Point campgrounds, construction activities at Dike 6 would be limited to the construction noise exemption times specified by the City of Folsom Noise Ordinance (e.g. 7 am to 6pm on weekdays, and 8am to 5 pm on weekends). In addition, no construction activities would be allowed at Dike 6 on weekends (Saturdays and Sundays). There could be limited exceptions to these requirements. Examples of potential exceptions include things such as emergency actions, corrective actions to ensure safety, transporting special equipment, etc. The construction contractor would first have to obtain Corps approval before performing construction work outside of the timeframes specified above.</p>
N-3	<p>Construction equipment noise would be minimized during project construction by muffling and shielding intakes and exhaust on construction equipment (per the manufacturer's specifications), and by shrouding or shielding impact tools.</p>	N-4	<p>All equipment, haul trucks, and worker vehicles would be turned off when not in use for more than 30 minutes.</p>
N-5	<p>Equipment warm up areas, water tanks, and equipment storage areas would be located as far from existing residences as is feasible.</p>	N-6	<p>Written notice of impending construction work would be provided to potentially-affected residences (typically those located within approximately 2,000 feet of proposed construction activities) at least 2 weeks prior to mobilization of a given project phase. These notices would identify the type, duration, and frequency of construction activities. Notification materials would also identify a mechanism to register complaints if construction noise levels are overly intrusive.</p>

N-7	The contractor would measure surface velocity waves caused by equipment and monitor vibration up to a threshold value established and approved in writing by the Corps. There would be no vibration exceeding 0.2 inch per second. Such measurements would only be taken within approximately 10 to 50 feet of residences and occupied buildings that could be adversely affected by excessive ground vibrations.
N-8	A 24-hour telephone hotline for noise complaints would be established by the construction contractor. Any complaint calls not answered at the time of the call would be returned within approximately 24 hours of their receipt, as long as the message left includes a call-back phone number.
N-9	Public meetings would be scheduled prior to construction of a given project phase to help ensure residents that may be affected by construction noise are informed of the project schedule and its potential effects.
WATER QUALITY & WATERS OF THE UNITED STATES	
WW-1	Prior to construction of a given project phase, the contractor would be required to obtain a Construction General Permit (CGP; basically a National Pollutant Discharge Elimination System (NPDES) permit) from the Central Valley Regional Water Quality Control Board (CVRWQCB). This includes preparing a Stormwater Pollution Prevention Plan (SWPPP) and a Spill Prevention and Control Plan (SPCP) for approval by the Corps and CVRWQCB prior to initiating construction activities.
WW-2	Appropriate erosion control measures would be incorporated into the SWPPP by the construction contractor in order to prevent sediment from entering wetlands, waterways, and waterbodies, and to minimize temporary turbidity impacts. Examples include, but are not limited to: straw bales/wattles, erosion blankets, silt fencing, silt curtains, mulching, revegetation, and temporary covers. Sediment and erosion control measures would be maintained by the contractor during construction at all times. Control measures would be inspected periodically by the construction contractor, particularly during and after significant rain events.
WW-3	The contractor would use a water truck or other appropriate measures to control fugitive dust on haul roads, construction areas, staging areas, and stockpiles.
WW-4	A fuels spill management plan would be developed and implemented for the project by the construction contractor.
WW-5	Construction equipment and vehicles would be fueled and maintained in specified staging areas only, which would be designed to capture potential spills. These areas cannot be near any ditch, stream, river, or other body of water or feature that may convey water to a nearby body of water or wetland.
WW-6	Fuels and hazardous materials would not be stored on site, unless otherwise approved by the Corps, and such substances are stored in areas designed to contain leaks and spills. Any spills of hazardous material would be cleaned up immediately by the construction contractor.
WW-7	Construction vehicles and equipment would be inspected frequently and appropriately maintained by the construction contractor to help prevent the dripping of oil, lubricants, or any other fluids.
WW-8	Construction activities involving removal (excavation) of material from the dikes, RWD, LWD, or MIAD, as well as placement of material on these same features, would be scheduled by the contractor to avoid as much of the wet season as practicable in cases where these activities may occur below the ordinary high water elevation of Folsom Lake.
WW-9	Construction personnel would be trained in stormwater pollution prevention practices by the construction contractor.
WW-10	In areas proposed for revegetation, initiation and completion of revegetation work would be done by the contractor in a timely manner to control erosion.
WW-11	If raising the dikes or MIAD requires removal or placement of riprap below the ordinary high water elevation in Folsom Lake, the Corps would obtain a Clean Water Act Section 401 Water Quality Certification (WQC) from CVRWQCB prior to starting such construction activities.
WW-12	The construction contractor would be required to implement and/or adhere to applicable conditions and requirements set forth in the CGP and, if applicable, the Section 401 WQC.
WW-13	The contractor would be required to properly dispose of oil and similar potential pollutants, including hazardous wastes, off-site in a duly licensed facility.

WW-14	<p>The construction contractor would be required to abide by the following restrictions pertaining to the use of construction staging areas that extend into Folsom Lake:</p> <ul style="list-style-type: none"> (1) Use must first be approved in writing by the Corps; (2) Use is strictly prohibited when the area is inundated by standing water or the water table underlying the staging area is within 6 inches of the soil surface; (3) Topographic alterations, including grading, excavation, or deposition of fill materials, are prohibited; (4) Clearing or removal of existing vegetation is prohibited; (5) Stockpiling of construction materials or wastes is prohibited; (6) Fueling of construction equipment or vehicles is prohibited; (7) Storage of fuel, hazardous wastes, or other potential pollutants is prohibited.
WW-15	<p>Corps environmental staff would conduct new jurisdictional determinations (e.g. field mapping and classification of jurisdictional Waters of the United States; WOUS) prior to finalizing design plans for a particular project phase. The design plans would then be refined, if necessary, to ensure construction of the project phase would not necessitate direct impacts (e.g. placement of fill, excavation, land clearing) to any jurisdictional wetlands or watercourses. The contractor would be required to protect all such features located within or immediately adjacent to the project limits of construction. Such protection would include the installation of temporary physical barriers, such as orange mesh fencing, adjacent to the boundaries of the wetlands and/or watercourses.</p>
WW-16	<p>That portion of the temporary Park Road detour road that passes through Folsom Lake would be constructed when the affected lake area is not inundated, if feasible. All of the temporary Park Road detour road would be completely removed upon completion of the 3.5-foot raise of Dikes 1 through 3, and lands disturbed by construction of the road would be restored by the construction contractor to mimic pre-construction conditions. Disturbed topography would be restored to approximately match the topography present prior to detour construction. Once topographic restoration is completed, natural areas disturbed by detour construction would be planted with a mixture of native grasses and forbs.</p>
WW-17	<p>During construction of the Tainter gates refinements phase of the proposed project, the construction contractor would be required to abide by the following requirements in accordance with 29 CFR 1926.62 “Lead”, and 8 CCR 1532.1 “Lead”:</p> <ul style="list-style-type: none"> (1) Lead dust on surfaces, especially in eating areas, must be controlled by HEPA vacuuming, wet cleanup, or other effective methods; (2) Workers must have washing facilities with soap and clean water; (3) Workers must receive training on lead hazards and how to protect themselves; (3) Develop a written compliance program, approved by the Corps, to assure control of hazardous lead exposures; and (4) Assess the amounts of lead breathed by workers and provide workers with appropriate respirators (if warranted based on air sampling results and medical monitoring results).
CR-1	<p>CULTURAL RESOURCES</p> <p>While there would be no adverse effects to historic properties, if any archeological deposits or other potential historic properties are found during project activities, work would be stopped pursuant to 36 CFR § 800.13(b) to determine the significance of the find and, if necessary, complete appropriate discovery procedures.</p>
M-1	<p>MISCELLANEOUS</p> <p>Upon or near completion of construction of the overall Folsom Dam Raise project, a revised Water Control Manual (WCM) would need to be prepared for the Folsom Dam facilities (main dam, auxiliary spillway, dikes, LWD, RWD, MIAD) in order to best realize the benefits provided by this project. The Corps, in coordination with DWR, SAFCA, and USBR, would prepare a supplemental joint NEPA/CEQA document to address and evaluate the potential effects of implementing the revised WCM. This document would be finalized and approved prior to implementation of the revised WCM.</p>