

**Mitigation Monitoring and Reporting Program**  
**Folsom Dam Raise Modifications Project**

**SCH# 2006022091**

Central Valley Flood Protection Board  
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# Abbreviations and Acronyms

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APE	Area of Potential Effects
ARB	Air Resources Board
ARCF	American River Watershed Common Features
BMP	Best Management Practice
BSLMS	Beach Stone Lakes Mitigation Site
CCR	Code of California Regulations
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CRHR	California Register of Historic Resources
CVFPB	Central Valley Flood Protection Board
EA	Environmental Assessment
EIS	Environmental Impact Statement
EIR	Environmental Impact Report
ESA	Environmental Site Assessment
GHG	Greenhouse gas
GRR	General Reevaluation Report
HPMP	Historic Properties Management Plan
HPTP	Historic Properties Treatment Plan
MLD	Most Likely Descendent
MMRP	Mitigation, Monitoring, and Reporting Program
mph	Miles per hour
NAHC	Native American Heritage Center
NOI	Notice of Intent
NO <sub>x</sub>	Oxides of Nitrogen
NPDES	National Pollutant Discharge Elimination System
PA	Programmatic Agreement
PM	Particulate matter
PM <sub>10</sub>	Particulate matter 10 microns or less in diameter
PPV	Peak particle velocity
PRC	Public Resources Code
REC	Recognized Environmental Condition
RWQCB	Regional Water Quality Control Board
SHPO	State Historic Preservation Office
SMAQMD	Sacramento Metropolitan Air Quality Management District
SOI	Secretary of Interior
SPCCP	Spill Prevention Control and Countermeasures Plan
SRCSD	Sacramento Regional County Sanitation District
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

**MITIGATION MONITORING AND REPORTING PROGRAM  
FOLSOM DAM RAISE MODIFICATIONS PROJECT  
SACRAMENTO, PLACER AND EL DORADO COUNTY, CALIFORNIA**

This mitigation monitoring and reporting program (MMRP) is designed to fulfill Section 21081.6 (a) of the California Public Resources Code (PRC) and Section 15097 of the California environmental Quality Act (CEQA) Guidelines. PRC Section 21081.6 (a) and CEQA Section 15097 require that public agencies adopt a reporting or monitoring program whenever a project or program is approved that includes mitigation measures to be imposed to mitigate or avoid significant environmental impacts on the physical environment. The mitigation measures and strategies are described below.

The MMRP includes the following, organized by impact topic:

- Mitigation Measures – lists the adopted mitigation measures from the 2022 Final Supplemental Environmental Impact Statement/Environmental Impact Report (2022 Supplemental EIS/EIR).
- Implementation Timing – identifies the timing of implementation of the action described in the mitigation measures. \*See Notes below.
- Responsible for Mitigation – identifies the agency/party responsible for implementing the actions described in the mitigation measures.
- Responsible for Monitoring /Reporting Action– identifies the agency/party responsible for monitoring and/or reporting on the implementation of the actions described in the mitigation measures.

\*Notes:

D: To be implemented or included as part of project design.

P: To be implemented prior to construction being initiated (pre-construction).

C: To be implemented during project construction.

## Recreation

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### R-1

To ensure public safety, warning signs and signs restricting access will be posted before and during construction as necessary. Public outreach will be conducted through mailings, posting conspicuous signs, coordination with interested groups, and meetings, if necessary, in order to provide information regarding changes to recreational access in and around Folsom Lake. The detours, traffic control measures, access restrictions, increased signage, increased education, and public outreach will help mitigate effects to recreational users of the Folsom Lake State Recreation Area (FLSRA).

**Implementation Timing:** P, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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### R-2

Although contractor staging and material stockpiling will emphasize use of areas with no or limited current public access and away from residential areas, there may be temporary impacts to recreation access. The construction work will 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.

**Implementation Timing:** P, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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### R-3

Prior to concrete floodwall construction at Dikes 4, 5, and 6, a temporary detour trail will be established to help mitigate the temporary loss of the existing trail/roadway that runs along the crest of the dikes. This detour trail will largely make use of an existing trail that will be repaired/modified, as necessary, prior to its usage as the detour route.

**Implementation Timing:** P, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### R-4

A temporary detour road will 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. In addition, a temporary detour road to the Granite Bay Activity Center will be built prior to closing a segment of the existing access road for project construction purposes. These temporary roads will be removed once they are no longer needed.

**Implementation Timing:** P, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### R-5

The raising of the access road to the Granite Bay Horse Assembly Area will be prioritized for rapid completion to minimize the time this access road must be closed for project construction

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### R-6

Prior to the construction of the Dike 5 access, a temporary detour trail will be established west of the currently existing trail.

**Implementation Timing:** P, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### R-7

To help prevent large rocks or similar objects from possibly rolling into the Beal's Point Recreational Vehicle (RV) Campground during the raising of Dike 6, concrete Jersey barriers (K-rails) will be installed adjacent to the east side of this campground. These barriers will be removed once the dike raise has been completed

**Implementation Timing:** P, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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## R-8

The existing public entrance from Douglas Blvd. to the Granite Bay recreation area will be used as the primary entrance and exit for Dikes 1-3 construction. However, haul trucks and other large construction equipment will be limited to using the Douglas Blvd. entrance to times of the year and times of day when recreational usage is at a minimum. Project construction traffic will not use the main public entrance to the Beal's 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 will be coordinated with State Parks Folsom Sector Superintendent.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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## R-9

Existing Folsom Lake State Recreation Area facilities that are adversely altered or damaged because of project construction work will be returned to their pre-construction condition near the end of construction.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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## R-10

There will be some exceptions to restoring affected facilities to their "pre-construction" condition. For example, trails/roads along the crests of the dikes will be restored but the restored trails/roads will not match their pre-construction condition because they will be higher than they are now or will have a concrete floodwall on the lake side of the crest. Improvements made to correct deficiencies in existing trails that will be used as detour trails will not be converted back to the deficient conditions. Paved roads and parking areas damaged during project construction will be appropriately repaired by the construction contractor; however, such repairs will be limited to damages that can be documented as being a direct result of project construction activities rather than damages caused by other sources.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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## R-11

For water pumped from Folsom Lake for construction, USACE will provide buoys to prevent the public from being within 20 feet of the pump intakes and will secure pumps using minimum 6-foot-high chain-link fencing.

**Implementation Timing:** P, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

## Vegetation and Wildlife

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### VW-1

To minimize dust impacts to vegetation, wetlands, and wildlife, dust control measures consistent with Sacramento Metropolitan Air Quality Management District (SMAQMD) fugitive dust control measures will be implemented by USACE.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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### VW-2

To help prevent importation of invasive plants and animals, vehicles and equipment will be required to thoroughly clean vehicles and equipment before first entering the project site.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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### VW-3

USACE will prepare final construction plans that will include drawings identifying habitat areas, including wetlands, that must be protected and specifying the methods of protection (e.g. installation of fencing or similar physical barriers, posting of signs, etc.). These plans will also illustrate and/or describe those areas/lands near the project features that are outside the limits of construction (and thus are protected from direct construction impacts). The final construction plans will be accompanied by written project specifications further detailing the habitat protection requirements, as well as general requirements concerning the protection of vegetation and wildlife.

**Implementation Timing:** D

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### VW-4

Native trees and shrubs having a diameter at breast height (DBH) of 2 inches or greater located within the limits of construction of a particular project phase will be preserved to the extent practicable. The USACE will establish protective buffers (e.g. temporary fencing) around the driplines of those trees and shrubs to be preserved that are located within the limits of construction. Native trees and shrubs located outside the limits of construction will be preserved. The USACE will also erect protective buffers along the limits of construction where these limits are near the adjacent trees and shrubs to be preserved. Any required trimming of native trees or shrubs will be conducted by, or under the direct supervision of a certified arborist.

**Implementation Timing:** P, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### VW-5

The USACE has determined that approximately 9 acres of oak woodland habitat will be eliminated as a result of construction activities. Consequently, the USACE has developed a mitigation plan to compensate for these losses. Compensatory mitigation will involve creation or restoration of the affected habitat types. The minimum ratio of the acres of each type to be restored or created per acre of each type lost will be 1.2:1. The mitigation ratio for oak plantings at MIAD West will be 1:1. The mitigation goal will 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 will be restored through the planting of various native grasses and forbs, while the species composition of the midstory and canopy strata will strive to mimic that of the affected habitats. The restored areas will be managed and monitored by the USACE for 5 years, although this period could be reduced to 4 years if success criteria are achieved by that time. The mitigation site(s) and overall mitigation plan will be selected in coordination with the United States Fish and Wildlife Service (USFWS), CVFPB, SAFCA, the United States Bureau of Reclamation (Reclamation), and State Parks.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB



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#### VW-7

The USACE will ensure that all construction personnel undergo environmental protection training to be aware of all required environmental protections (bird, wildlife, and vegetation/habitat protection) per the final construction plans and specifications, as well as those required by applicable federal and state laws.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### VW-8

The USACE will be required to place food-related wastes in self-closing trash containers, to keep wildlife away from construction areas where they might be harmed.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### VW-9

After completing construction activities within a given phase of the Project, disturbed portions of the staging areas used for the Project phase will be restored by USACE. One exception to this generalization will 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 will not be restored until the final project phase to use the staging area is completed. Another exception will be for staging areas, or portions thereof, that encompass permanent man-made features. Such areas will not be restored.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### VW-10

Revegetated areas will be monitored for invasive plant species by USACE. 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 invasive plants are becoming established, such plants will be eradicated by USACE through directed herbicide applications, physical removal, or both. The

goal will be to control invasive plant species such that they account for 5 percent or less of the average total plant cover.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### VW-11

Prior to initiating construction of a given project phase, USACE staff will assess drainage depressions, channels, and ditches present at the project site to determine whether any such features provide water to wetlands. USACE staff will also delineate the approximate limits of jurisdictional wetlands located within or immediately adjacent to the project's limits of construction. USACE will be required to maintain flows in those drainage features that are found to provide water to wetlands.

**Implementation Timing:** P

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### 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 will be removed. Topography altered by construction of the road will be restored to approximately match pre-construction topography and natural areas disturbed by road construction will be planted with native grasses and forbs.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### VW-13

USACE will minimize or avoid the effects of nighttime lighting on wildlife species by implementing the following actions: 1) Avoiding construction activities at night, to the maximum extent practicable. 2) Using the minimal amount of lighting necessary to safely and effectively illuminate the work areas. 3) Shielding and focusing lights on work areas and away from the water surface of Folsom Lake and the American River, to the maximum extent practicable. 4) Temporary and permanent lighting will have correlated color temperatures and under 3000K to minimize disturbance to wildlife at night. 5) A qualified biologist will monitor

the work area at appropriate intervals to assure that all avoidance and minimization measures are implemented.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

## Special Status Species

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### LS-1

As project design plans are developed and refined, USACE, to the degree practicable, will adjust the limits of construction to avoid removal of existing native trees and large shrubs (with a DBH of 1 inches or greater) and elderberry shrubs (having one or more stems measuring 1 inch or greater in diameter at ground level).

**Implementation Timing:** D

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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### LS-2

Prior to starting construction activities for the Proposed Project, a qualified biologist will 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. The typical maximum buffer distance between a bald eagle nest and construction activities is 660 feet (USFWS, 2007). If any bald eagle nests are discovered during the field surveys, regardless of whether a nest is classified as active, inactive/alternate, or abandoned, the USACE will coordinate with USFWS Migratory Bird Office staff and CDFW staff to determine measures necessary to avoid, minimize, or mitigate potential adverse construction impacts to bald eagles. Any such measures necessary will be implemented. Such measures could include not conducting project construction work within 660 feet of an active bald eagle nest or monitoring behavior of eagles tending an active or alternate nest for signs of stress and potential nest abandonment during the nesting season

**Implementation Timing:** P, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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### LS-3

To avoid impacts to nesting raptors protected under the MBTA, prior to beginning construction for the Proposed Project, USACE biologists will survey within 1,000 feet of the areas slated for

construction in the given phase for loggerhead shrikes, white-tailed kites, and peregrine falcon to determine if the species is present. If any active nests are discovered during the field surveys the USACE will coordinate with CDFW staff to determine measures necessary to avoid, minimize, or mitigate potential adverse construction impacts. Swainson's hawk surveys will be completed in compliance with the CDFW survey guidance (Swainson's hawk Technical Advisory Committee, 2000). Implementation of the CDFW survey guidance is inclusive of the avoidance of Swainson's hawk under MBTA. 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 the area surveyed does not contain any active nests, construction activities will commence without any further mitigation. If these surveys find there are active nests present within the defined areas, CDFW will be contacted to determine the proper course of action. If necessary, buffers will 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 near Project construction areas for signs of stress exhibited by the adult birds, which could lead to nest abandonment.

**Implementation Timing:** P, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### LS-4

Prior to initiating construction activities for the proposed project, USACE biologists will 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 inactive nests are found (e.g., nests that do not contain eggs or chicks), these will be removed to help prevent birds from re-using the nests. If active nests are found, the protocol described below will be followed.

If the surveys performed above do not take place during the migratory bird nesting season (typically March 1 through August 31), then USACE biologists will again conduct surveys for migratory bird nests at the beginning of the nesting season in a manner similar to that discussed above.

If active migratory bird nests are discovered within the project limits of constructions, buffer areas will typically be established by the construction contractor around each nest and construction activities within the buffer(s) will be prohibited until the young occupying the nests have fledged. USACE will coordinate with USFWS staff 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

will also be established around these nests as well. It is emphasized that there may be exceptions to this procedure, as described below.

There may be instances where it is not practicable for project construction activities to avoid direct impacts to active migratory bird nests. USACE will obtain a Special Purpose Permit (Migratory Bird Permit) from USFWS in such cases prior to impacting the active nests. This permit will 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 USACE staff pursuant to the permit will typically be taken to the Wildlife Care Association located in McClellan, California; however, the chicks and/or eggs might be taken to a different care facility if warranted.

**Implementation Timing:** P, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### LS-5

The construction contractor will be required to report any active or inactive migratory bird nests to the USACE within 24 hours of discovery of such nests.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### LS-6

Prior to construction of a particular project phase, USACE environmental staff will 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 near the project phase's limits of construction.

**Implementation Timing:** P

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### LS-7

Construction personnel will receive USFWS-approved worker environmental awareness training to ensure that workers recognize elderberry shrubs and the VELB. The training will include: the protected status of VELBs 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 the VELB; and key USACE contacts and key contacts with the construction contractor pertaining to environmental issues.

**Implementation Timing:** P, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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## LS-8

Where practicable, a minimum setback (buffer) of 100 feet from the dripline of all elderberry shrubs containing stems measuring 1.0 inch or greater in diameter at ground level will 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 dripline of such elderberry shrubs will be established if feasible. The USACE will consult with USFWS prior to establishing any elderberry shrub buffer zones (setbacks) that extend less than 100 feet from the dripline of a particular shrub. Such buffer zones will not be established without first obtaining approval from USFWS.

Prior to project construction for activities near elderberry shrubs that will be preserved as part of the project, protective barriers will be installed along the limits (boundaries) of approved elderberry shrub buffer zones (exclusion areas). These barriers will typically be orange-mesh fencing but could also include other barriers such as wooden fencing, staked ropes with flagging, or K-rails (Jersey barriers). The protective barriers will be maintained throughout the duration of project construction and/or restoration activities. No construction activities or similar disturbances will be allowed within the elderberry shrub buffer zones unless authorized in advance by the USACE and USFWS.

Regardless of the preceding, there could be situations where elderberry shrubs to be preserved are located in areas near a proposed project phase where no construction work will occur within 100 feet of the shrubs and existing landscape conditions (ex. steep terrain, intervening roadways, etc.) are such that it will be highly improbable that construction work could inadvertently damage such shrubs. In such cases, protective barriers will not be installed if approved in advance by USFWS.

Signs will be placed approximately every 50 feet along the edge of the elderberry shrub buffer zones (i.e., along the protective barriers discussed above). The signs will 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 will be readable from 20 feet and will be maintained during project construction. If protective barriers are not required

to be installed along limits of elderberry shrub buffer zones, no signs will be provided along these buffer zones.

**Implementation Timing:** P, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### LS-9

Any damage done within elderberry shrub buffer zones during project construction will be remediated shortly following the discovery of such damage. Remediation work may include installing erosion control measures, seeding disturbed areas with appropriate native plant seeds, etc.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### LS-10

No insecticides, herbicides, fertilizers, or other chemicals that might harm the VELB or its host plant will 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.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### 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 August through February when adults are not active. No mowing will be allowed within 5 feet of elderberry shrub stems, and all mowing will be done in a manner that avoids damaging elderberry plants.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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## LS-12

There may be cases where it is not practicable to avoid direct construction impacts to elderberry shrubs meeting the stem diameter requirements stated above. In such cases, USACE will purchase an appropriate number of credits from a USFWS-approved conservation bank within the service area. The determination of the number of conservation credits required will be based on methodologies prescribed in the USFWS conservation guidelines for VELB (USFWS, 1999) and direct coordination with USFWS staff. USACE will 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 will be transplanted when the plants are dormant (roughly November through the first 2 weeks in February) if feasible. The contractor (the conservation bank) will be required to follow the transplanting procedure set forth in the VELB Guidelines and USACE staff will monitor the removal of the shrubs from the project site.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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## LS-13

The process for evaluating the potential impacts to VELB in a given project phase will be as follows: (1) Designate elderberry shrubs that will be preserved and the protective buffers associated with each of those shrubs; (2) Designate shrubs that will have to be removed/transplanted, and determine the number of conservation credits that will have to be purchased to compensate for those shrubs that must be transplanted; (3) Submit a request for re-initiation of Endangered Species Act Section 7 consultation to USFWS that seeks concurrence with the USACE effects determination and the USACE 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).

**Implementation Timing:** P, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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## LS-14

During project construction and/or restoration activities that involve earthwork, measures will be employed to suppress generation of dust. Such measures will include frequent watering of project haul roads, earthen stockpile areas, and similar exposed soil surfaces.



**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### LS-15

Wherever feasible, construction activities will be conducted outside of the pupping season for bats (generally April 1 to August 31).

If removal of trees must occur during the bat pupping season, within 30 days of tree removal activities, all trees to be removed will be surveyed by a biological monitor for the presence of features that may function as special status bat maternity roosting habitat. Trees that do not contain potential special status maternity roosting habitat may be removed. For trees that contain suitable special status bat maternity roosting habitat, surveys for active maternity roosts shall be conducted by a qualified biologist in trees designated for removal. The surveys shall be conducted from dusk until dark.

If a special-status bat maternity roost is located, appropriate buffers around the roost sites shall be determined by a qualified biologist and implemented to avoid destruction or abandonment of the roost resulting from tree removal or other project activities. The buffer area must be a minimum of 100 feet from the tree containing the maternity roost. No project activity shall commence within the buffer areas until the end of the pupping season (September 1) or until a qualified biologist confirms the maternity roost is no longer active. If construction activities must occur within the buffer, a qualified biologist will monitor activities either continuously or periodically during the work, as determined by the qualified biologist. The qualified biologist will be empowered to stop activities that, in the biologist's opinion, threaten to cause unanticipated adverse effects on special status bats. If construction activities are stopped, CDFW will be consulted to determine appropriate measures to implement to avoid adverse effects.

For trees containing cavities, cracks, crevices, or deep bark fissures that are planned for removal or trimming (irrespective of time of year), such trees must be trimmed and/or removed in a two-phase removal system conducted over two consecutive days. The first day (in the afternoon), limbs and branches will be removed, using chainsaws only. Removal activities must avoid limbs with cavities, cracks, crevices, or deep bark fissures, and remove only branches and limbs without those features. On the second day, the entire tree will be removed. A qualified biologist will monitor removal of these trees.

If it is not feasible to remove a tree using the two-phased approach, limbs containing habitat features should be removed and gently lowered to the ground in a location where they are not likely to be crushed or disturbed by the felling of the tree and left undisturbed for the next 48 hours. If the vegetation cannot be left for 48 hours, the biological monitor shall survey the

vegetation for presence of bats. If any bats are found within the vegetation, the vegetation must be left for 48 hours (or CDFW should be called for guidance regarding relocation of the bat dependent on urgency for removal).

Standing dead trees or snags with habitat features should be removed over a single day by gently lowering the tree or snag to the ground. The tree or snag should be left undisturbed on the site for the next 48 hours.

Removal and trimming of trees with potential roosting habitat, irrespective of time of year, shall be conducted in the presence of a biological monitor.

If trimming results in the removal of vegetation that contains potential bat habitat, vegetation should be gently lowered to the ground and left near the tree for 48 hours prior to removal, if feasible. If the vegetation cannot be left for 48 hours, the biological monitor shall survey the vegetation for presence of bats. If any bats are found within the vegetation, the vegetation must be left for 48 hours (or CDFW should be called for guidance regarding relocation of the bat dependent on urgency for removal).

**Implementation Timing:** P, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

## Air Quality

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### AQ-1

- Submit an Asbestos Dust Mitigation Plan 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 to the AQMD of Sacramento, Placer, and El Dorado Counties with required fees. The Plan will specify dust mitigation practices sufficient to ensure that no equipment or operation emits dust that is visible crossing the project boundary line. Construction will not commence until the Asbestos Dust Mitigation Plan is approved. USACE will then implement the approved ADMP in areas where project construction will involve disturbing lands that may harbor naturally occurring asbestos.
- USACE will conduct cleanup of carryout and track-out by the following methods:
  - Remove any visible track-out from a paved public road wherever vehicles exit the work site with a wet sweeper or a HEPA filter equipped vacuum device at least one time per day; or flush with water, if curbs or gutters are not present, and where the use of water will not result in a source of trackout material or result in adverse impacts on storm water drainage systems or violate any NPDES permit program. Use of blower devices, or dry rotary brushes or brooms for removal of carryout and track out on public roads will be prohibited.

- Install one or more of the following track-out prevention measures:
  - A gravel pad designed using good engineering practices to clean the tires of exiting vehicles;
  - A tire shaker;
  - A wheel wash system;
  - Pavement extending for not less than fifty consecutive feet from the intersection with the paved public road; or any other measure as effective as the measures listed above.
- Keep active storage piles adequately wetted or covered with tarps.
- Control for disturbed surface areas and storage piles that will remain inactive for more than seven days, which will include one or more of the following:
  - Keep the surface adequately wetted;
  - Establish and maintain surface crusting;
  - Apply non-toxic, biodegradable dust suppressants or stabilizers according to the manufacturer's recommendations;
  - Cover with tarp or vegetative cover;
  - Install wind barriers of fifty percent porosity around three sides of a storage pile;
  - Install wind barriers across open areas; or
  - Take other measures as effective as the measures listed above.
- Control for traffic on on-site roads, parking lots, and staging areas which will include:
  - A maximum vehicle speed limit of 15 miles per hour or less; and
  - One or more of the following:
    - Watering every two hours of active operations or sufficiently often to keep the area adequately wetted;
    - Apply non-toxic, biodegradable dust suppressants consistent with manufacturer's directions;
    - Maintain a gravel cover with a silt content that is less than 5 percent and asbestos content that is less than 0.25 percent, as determined using an approved asbestos bulk test method, to a depth of 3 inches on the surface being used for travel; or
    - Any other measure as effective as the measures listed above.
- Control for earthmoving activities that will include one or more of the following:
  - Pre-wetting the ground to the depth of anticipated cuts;
  - Suspension of grading operation when wind speeds are high enough to result in dust emissions crossing the property lines, despite the application of dust mitigation measures;
  - Application of water prior to any lands clearing; or
  - Any other measure as effective as the measures listed above.
- Control for off-site transport. No truck will be allowed to transport excavated material off-site unless:
  - Trucks are maintained such that no spillage will occur from holes or other opening sin cargo compartments; and
  - Loads are adequately wetted and either
  - Covered with tarps; or

- Loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than six inches from the top and that no point of the load extends above the top of the cargo compartment.
- Post construction stabilization of disturbed areas. Upon completion of the project, disturbed surfaces will be stabilized using one or more of the following methods;
  - Establishment of a vegetative cover;
  - Placement of at least one foot of non-asbestos-containing material;
  - Paving;
  - Any other measure deemed sufficient to prevent wind speeds of ten miles per hour or greater from causing visible dust emissions.

**Implementation Timing:** P, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

## AQ-2

USACE will be required to implement the fugitive dust mitigation measures listed below (in addition to the asbestos mitigation measures previously mentioned):

- Limit vehicle speeds on unpaved roads to 15 miles per hour.
- Water at least every 2 hours of active construction activities or sufficiently often to keep disturbed areas adequately wet.
- Remove all visible track-out from a paved public road at any location where vehicles exit the work site. This will typically be accomplished using wet sweeping by a HEPA filter-equipped vacuum device on a daily basis.
- Install one or more of the following track-out prevention measures:
  - A gravel pad to clean the tires of exiting vehicles.
  - A tire shaker.
  - A wheel wash system
  - Pavement extending at least 50 feet from the intersection with the paved public road, or
  - Any other measure(s) as effective as the measures listed above.
- Pre-wet the ground to the depth of anticipated cuts.
- Suspend any excavation operations when wind speeds are high enough to result in dust emissions across the property line, despite the application of other dust mitigation measures.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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### AQ-3

USACE will also be required to implement the following enhanced fugitive PM dust control practices as specified by SMAQMD in Sacramento County, which includes LWD, Dike 7, and MIAD:

- For Soil Disturbance Areas:
  - Water exposed soil with adequate frequency for continued moist soil, but do not overwater to the extent that sediment flows off the project site.
  - Suspend excavation, grading, and/or demolition activity when wind speeds exceed 20 mph.
  - Install wind breaks (ex. solid fencing) on the windward side(s) of construction areas.
  - Plant vegetative ground cover in disturbed areas as soon as possible. Water appropriately until vegetation is established.
- For Unpaved Roads:
  - Install wheel washers for all exiting trucks or wash off all trucks and equipment leaving the site.
  - Treat site access to 100 feet from the paved road with a 6 to 12-inch layer of wood chips, mulch, or gravel to reduce generation of road dust and road dust carryout onto public roads.
  - Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person will respond and take corrective action within 48 hours of receiving a complaint. The phone number of the AQMDs of Sacramento, Placer, and El Dorado will also be provided on the sign depending on jurisdiction to help ensure compliance.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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### AQ-4

USACE will be required to implement the additional basic construction emission control practices:

- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to five minutes (as required by the state airborne toxics control measure [Title 13, Sections 249(d)(3) and 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site.
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.

- Water all exposed surfaces 2 times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access/haul roads.
- Cover or maintain at least 2 feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks slated for travel along freeways or major roadways must be covered.
- Limit vehicle speeds on unpaved roads to 15 miles per hour.
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads when necessary.
- Provide current certificate(s) of compliance for California Air Resources Board's (CARB) In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, sections 2449 and 2449.1].

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

#### AQ-5

Submit to the USACE and appropriate AQMD (s) a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 hp, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory will include the horsepower rating, engine model year, and projected hours of use for each piece of equipment. The inventory will be updated and submitted monthly throughout the duration of the project, except that an inventory will not be required for any 30-day period in which no construction activity occurs. At least 4 business days prior to the use of subject heavy-duty off-road equipment, the contractor will provide the jurisdictional AQMD (s) with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. The SMAQMD's Model Equipment List can be used to submit this information.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

#### AQ-6

Model year 2010 (MY2010) or newer haul trucks will typically be used for the duration of the project. Use of these trucks will provide the best available emission controls for NOx and PM emissions. Occasions could arise when the availability of MY2010 or newer haul trucks is limited, thereby forcing the need to use older trucks to meet construction schedule goals. In such a situation, the construction contractor will first be required to demonstrate that MY2010 or

newer trucks are not available in the general project region before the use of older trucks is authorized by the USACE.

All off-road diesel-powered construction equipment greater than 50 horsepower will meet Tier-4 off road emission standards (reference 40 CFR Part 1039), where available. In addition, if not already supplied with a factory-equipped diesel particulate filter, all construction equipment will be outfitted with Best Available Control Technology (BACT) devices certified by CARB. Any emissions control device used by the construction contractor will 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. In the event that a certain tier engine is not available for any off-road equipment larger than 50 hp, that equipment will be equipped with the next lower tier engine (e.g., if Tier 3 is not available use Tier 2), or an engine that is equipped with retrofit controls to reduce exhaust 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. If the construction contractor proposes to use off-road diesel-powered construction equipment greater than 50 hp that does not meet Tier-4 off road emissions standards, such usage will first have to be approved by the USACE.

Construction equipment will incorporate emissions-reducing technology such as specific fuel economy standards. Idling will be restricted to a maximum of 5 minutes, except as provided in the CARB 13CCR, Section 2485 exceptions.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### AQ-7

(1) Mitigation for Particulate Matter Emissions Exceeding AQMD Thresholds:

The construction contractor will provide the USACE and the applicable local AQMDs with updated and revised air quality emissions estimates prior to beginning project construction activities on a given project phase. If these estimates indicate the applicable PM<sub>10</sub> threshold and/or the applicable PM<sub>2.5</sub> threshold will be exceeded despite the use of the mitigation measures and BMPs addressed previously, USACE will coordinate with AQMDs to determine the level of mitigation fees (including administrative fees), if any, that must be paid. For SMAQMD, the cost of reducing one ton of PM emissions as of July 1, 2017 (no change in 2018, 2019, 2020, or 2021) is \$30,000. For PCAPCD, the cost of reducing one ton of PM emissions as of January 1, 2018 (no change in 2019, 2020, or 2021) is \$18,790.

The construction contractor will provide monthly estimates of actual PM<sub>10</sub> and PM<sub>2.5</sub> emissions to the USACE and the applicable AQMDs once construction activities begin. These emissions

reports will, if necessary, indicate the emissions that occurred within Sacramento County and El Dorado County for SMAQMD and EDCAQMD and the emissions that occurred within Placer County for PCAPCD. When a monthly report indicates PM emissions exceeded the applicable local AQMD threshold, the contractor will be required to pay the appropriate mitigation fee and any associated administrative fee. These compensatory mitigation fees will be paid to the applicable local AQMD. For example, if a particular project phase entailed work in both Sacramento County and Placer County and PM<sub>10</sub> emissions in Sacramento County were 1 ton over the SMAQMD threshold while PM<sub>10</sub> emissions in Placer County were 2 tons over the PCAPCD threshold, then the mitigation fee paid to SMAQMD will be for a 1 ton overage while the mitigation fee paid to PCAPCD will be for a 2 ton overage.

(2) Mitigation for NO<sub>x</sub> Emissions Exceeding SMAQMD and/or PCAPCD Thresholds:

As discussed, modeling performed by the USACE as part of this DSEIS/EIR indicated that construction emissions of NO<sub>x</sub> will not exceed local AQMD thresholds for NO<sub>x</sub>. If, however, the construction contractor's monthly reports of estimated actual NO<sub>x</sub> emissions (see above) reveal that such NO<sub>x</sub> thresholds have been exceeded during construction of a particular project phase, then payment will be required to pay the appropriate mitigation fee and any associated administrative fee. These compensatory mitigation fees will be paid to the applicable local AQMD, similar to how compensatory mitigation fee payments will be made for exceeding PM thresholds. For SMAQMD, the cost of reducing one ton of NO<sub>x</sub> emissions as of July 1, 2017 (no change in 2018, 2019, 2020, or 2021) is \$30,000; however, this fee is typically adjusted every year. For PCAPCD, the cost of reducing one ton of NO<sub>x</sub> emissions as of January 1, 2018 (no change in 2019, 2020, or 2021) is \$18,790.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

## Climate Change

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### CC-1

The construction contractor will be required to submit monthly estimates of actual construction emissions to the USACE and applicable local AQMDs. If these monthly reports show that emissions may eventually exceed either of the two applicable CO<sub>2e</sub> thresholds (i.e. PCAPCD, or SMAQMD thresholds), the contractor will be required to prepare a GHG emissions reduction plan for approval by the USACE, then implement the approved plan. Elements of such a plan could include one or more of the following:

- Minimize the idling time of construction equipment to no more than 3 minutes or shut equipment off when not in use.



- Encourage carpools, shuttle vans, and/or alternative modes of transportation for construction worker commutes.
- Use of CARB-approved low carbon fuel.
- Use of equipment with new technologies (repowered engines, electric drive trains).

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

## CC-2

If actual CO<sub>2</sub>e emissions during construction of a given project phase do exceed either of the two thresholds, then compensatory mitigation will be provided in the form of purchasing sufficient carbon credits to mitigate for the excess CO<sub>2</sub>e. Carbon offset credits will be purchased by the construction contractor and potential sources for these credits include; CAPCOA GHG Reduction Exchange Program, the Climate Action Reserve, the American Carbon Registry, or a similar carbon credit registry that is acceptable to the applicable local AQMD and the USACE. Thus, if the actual CO<sub>2</sub>e emissions of a particular project phase exceed the PCAPCD significance threshold for CO<sub>2</sub>e, or the SMAQMD significance threshold for CO<sub>2</sub>e, the purchase of carbon credits will reduce the project's climate change effect to less-than-significant. For SMAQMD, the cost of carbon credits is determined by the entity/registry facilitating the credit purchase. For PCAPCD, the cost of reducing one ton of CO<sub>2</sub>e emissions will be determined in coordination with PCAPCD.

It is noted that the above compensatory mitigation measure will only be triggered under the following scenarios: (1) Project construction emissions that occur within Placer County exceed the PCAPCD threshold of 10,000 MT CO<sub>2</sub>e per year; (2) Project construction emissions that occur within Sacramento County exceed the SMAQMD recommended threshold of 1,100 MT CO<sub>2</sub>e per year, regardless of the county in which the emissions are generated.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

## Aesthetics and Visual Resources

### AV-1

Existing native trees will be preserved to the extent practicable.

Staging areas will be located on previously disturbed lands where feasible.

Anti-graffiti coatings will be used on the concrete floodwalls.

Staging areas will be restored following construction by restoring pre-construction topography to the degree practicable and hydroseeding the areas with native grasses and forbs. Exceptions to this mitigation measure will include the staging areas situated on existing urban/disturbed lands, with the exception of the Dike 7 Office Complex staging area, will not be restored, but instead returned to conditions present prior to the project (examples include staging areas for LWD improvements and for the main dam improvements).

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

## Noise

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### N-1

Construction noise will 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 will be required to meet the City of Folsom exterior noise thresholds. Construction noise is exempt from these standards during the periods of 7:00 a.m. to 6:00 p.m. on weekdays and 8:00 a.m. to 5:00 p.m. on weekends. Any nighttime or weekend work will need to be approved by USACE.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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### N-2

To help minimize construction noise effects to campers utilizing the Beal's Point campgrounds, construction activities at Dike 6 will be limited to the construction noise exemption times specified by the City of Folsom Noise Ordinance (e.g. 7am to 6pm on weekdays, and 8am to 5 pm on weekends). In addition, no construction activities will 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 will first have to obtain USACE approval before performing construction work outside of the timeframes specified above.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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N-3

Construction equipment noise will 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.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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N-4

If practicable, all equipment, haul trucks, and worker vehicles will be turned off when not in use for more than 5 minutes.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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N-5

Equipment warm up areas, water tanks, and equipment storage areas will be located as far from existing residences as is feasible.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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N-6

Written notice of impending construction work will be provided to potentially affected residences (typically those located with approximately 2,000 feet of proposed construction activities) at least 2 weeks prior to mobilization of a given project phase. These notices will identify the type, duration, and frequency of construction activities. Notification materials will also identify a mechanism to register complaints if construction noise levels are overly intrusive, including the hotline phone number, detailed in Mitigation Measure N-8.

**Implementation Timing:** P

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### N-7

The contractor will measure surface velocity waves caused by equipment and monitor vibration up to a threshold value established and approved in writing by the USACE. There will be no vibration exceeding 0.2 inch per second. Such measurements will only be taken near residences and occupied buildings that could be adversely affected by excessive ground vibrations.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### N-8

A 24-hour telephone hotline for noise complaints will be established by the construction contractor and notices will be conspicuously displayed at the construction site. Any complaint calls not answered at the time of the call will be returned within approximately 24 hours of their receipt, as long as the message left includes a call-back phone number.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### N-9

Public meetings will 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.

**Implementation Timing:** P

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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## Water Quality and Waters of the United States

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#### WW-1

USACE will be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit from the Central Valley Regional Water Quality Control Board (CVRWQCB). As part of the permit (a Construction General Permit), USACE will be required to prepare a SWPPP and a

SPCP prior to initiating construction activities, identifying BMPs to be used for avoidance or minimization of any adverse effects during construction to surface waters.

Pollution prevention measures should be incorporated into all final design and construction plans. The pollution prevention measures will include erosion and sediment control measures, and measures for non-stormwater discharges (i.e., construction dewatering and appropriate spill prevention and containment measures). Measures will be implemented to avoid accidental spills and sediment dispersal during barging of borrow materials. Work under NPDES jurisdiction requires the preparation of a SWPPP. The SWPPP will describe the proposed construction activities and pollution prevention measures that should be implemented to prevent discharge of pollutants. The SWPPP will also include a description of inspection and monitoring activities that must be conducted. Construction and post-construction monitoring should be conducted to ensure that all pollution prevention efforts are performed as described in the SWPPP. The SWPPP should be amended in the event modifications to the pollution prevention measures become necessary.

**Implementation Timing:** D, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### WW-2

Appropriate erosion control measures will 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 will always be maintained during construction. Control measures will be inspected periodically by the construction contractor, particularly during and after significant rain events.

**Implementation Timing:** D, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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#### WW-4

A fuels spill management plan will be developed for the project by the construction contractor and will be implemented by the contractor.

**Implementation Timing:** D

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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WW-5

Construction equipment and vehicles will be fueled and maintained in specified staging areas only, which will be designed to capture potential spills and not release them into any ditch, stream, river, or other body of water or feature that may convey water to a nearby body of water or wetland.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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WW-6

Fuels and hazardous materials will not be stored on site, unless otherwise approved by USACE and such substances are stored in areas designed to contain leaks and spills. Any spills of hazardous material will be cleaned up immediately by the construction contractor.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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WW-7

Construction vehicles and equipment will be inspected frequently and appropriately maintained by the construction contractor to help prevent dripping of oil, lubricants, or any other fluids.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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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 will 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.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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**WW-9**

Construction personnel will be trained in stormwater pollution prevention practices by the construction contractor.

**Implementation Timing:** P, C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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**WW-10**

In areas proposed for revegetation, initiation and completion of revegetation work will be done by the contractor in a timely manner to control erosion.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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**WW-11**

If any portion of the project impacts wetlands, the USACE will obtain a Clean Water Act Section 401 Water Quality Certification (WQC) from CVRWQCB prior to starting such construction activities.

**Implementation Timing:** P

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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**WW-13**

The construction contractor will be required to properly dispose of oil and similar potential pollutants, including hazardous wastes, off-site in a duly licensed facility.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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## WW-14

The construction contractor will be required to abide by the following restrictions pertaining to the use of construction staging areas that extend into Folsom Lake: (1) Use must first be approved in writing by the USACE; (2) Use is strictly prohibited when the area is inundated by standing water or the water 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.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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## WW-15

USACE environmental staff will conduct new jurisdictional determinations (e.g. field mapping and classification of jurisdictional WOUS) prior to finalizing design plans for a particular project phase. The design plans will then be refined, if necessary, to ensure construction of the project phase will not necessitate direct impacts (e.g. placement of fill, excavation, land clearing) to any jurisdictional wetlands or watercourses.

**Implementation Timing:** D

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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## WW-16

During construction of the Tainter gates refinements phase of the proposed project, the construction contractor will be required to abide by the following requirements, in accordance with 29 CFR 1926.62 Lead and 8 CCR 1532.1 Lead:

- Housekeeping. Lead dust on surfaces, especially in eating areas, must be controlled by HEPA vacuuming, wet cleanup, or other effective methods.
- Hand and face washing. Workers must have washing facilities with soap and clean water.
- Training. Workers must receive training on lead hazards and how to protect themselves.
- Develop a written compliance program, approved by the USACE, to assure control of hazardous lead exposures.
- Assess the amounts of lead breathed by workers. This is usually done by employee breathing-zone air sampling. Air sampling results are used to determine if clean areas



for eating and clothing change, showers, full worker training, and medical monitoring with routine blood testing for lead and zinc protoporphyrin (ZPP) is necessary, as well as the type of respirator that must be worn for protection.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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## WW-17

To remove water via water intake pipes in Folsom Lake, the contractor will use the following drafting operating guidelines:

- Do not exceed pumping rate of 350 gallons per minute.
- Terminate pumping when the tank is full.
- Encircle each pumping intake with a silt curtain or filtering barrier that does not have openings greater than 1/32 of an inch in size in to prevent entrainment of young fish (fry) and other aquatic organisms. Remove any fish present from within the encircled curtain or barrier before pumping begins. For each pumping operation, attach a functional fish screen on the intake pipe.
- The screen will be designed and used such that it can be submerged with at least one-screen-height-clearance above and below the screen.
- Retain a log on the truck containing the following information: Operator's Name, Date, Time, Pump Rate, Filling Time, Screen Cleaned (Y or N), Screen Condition, Comments.
- Include these guidelines as instructions in a logbook with serially numbered pages. The contractor will be required to report the amount of water draw from Folsom Lake monthly to the Bureau of Reclamation Central California Area Office.
- If the contractor chooses to use locations for pumping water from Folsom Lake other than those identified in this document, the contractor will coordinate with USACE environmental and cultural staff for clearance and appropriate documentation before the sites could be used.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB

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## Cultural Resources

### CR-1

Under a Section 106 finding of No Adverse Effect, no avoidance, minimization of impacts, or mitigation is required under Federal law. However, if archeological deposits or other potential historic properties are found during implementation of the proposed project, all work will stop to

determine the significance of the find and complete appropriate discovery procedures, as necessary, pursuant to 36 C.F.R. § 800.13(b) Discoveries without prior planning. If adverse effects to historic properties are found to result from a post-review discovery, mitigation of those effects will be determined and mitigated through the Section 106 process.

In accordance with CEQA, if Tribal Cultural Resources are found during project implementation, USACE and CVFPB will implement procedures to evaluate Tribal Cultural Resources, and reduce, avoid, or minimize impacts. These measures are identified in MM CR-1 (including preservation and protection in place, safeguarding resource confidentiality, treating the resource with appropriate dignity, and taking into account Tribal cultural values) and will reduce potential significant impacts on Tribal Cultural Resources to less than significant.

Pursuant to California law, California Native American Tribes that are traditionally and culturally affiliated with the geographic area in which the project is located may have expertise concerning their Tribal Cultural Resources (California PRC Section 21080.3.1). Consistent with the California Natural Resources Agency Tribal Consultation Policy, CVFPB will consult with culturally affiliated Tribes concerning Tribal Cultural Resources that may be impacted, if these types of resources are discovered prior to or during construction. Consultation with culturally affiliated Tribes shall focus on identifying measures to avoid or minimize impacts on any such resources discovered during construction. If Tribal Cultural Resources are identified in the APE prior to or during construction, CVFPB will ensure that those resources are evaluated for CRHR eligibility through application of established eligibility criteria (CCR 15064.636), in consultation with interested Native American Tribes and, if eligible, avoid or mitigate any impacts to less than significant levels in accordance with California PRC Section 21084.3 by implementing CR-1.

**Implementation Timing:** C

**Responsible for Mitigation:** USACE

**Responsible for Monitoring/Reporting Action:** CVFPB