Meeting Date: 12/17/24
Application Number: 3623
Staff: J. Toy

Staff Report 26

APPLICANT:

Central Valley Flood Protection Board

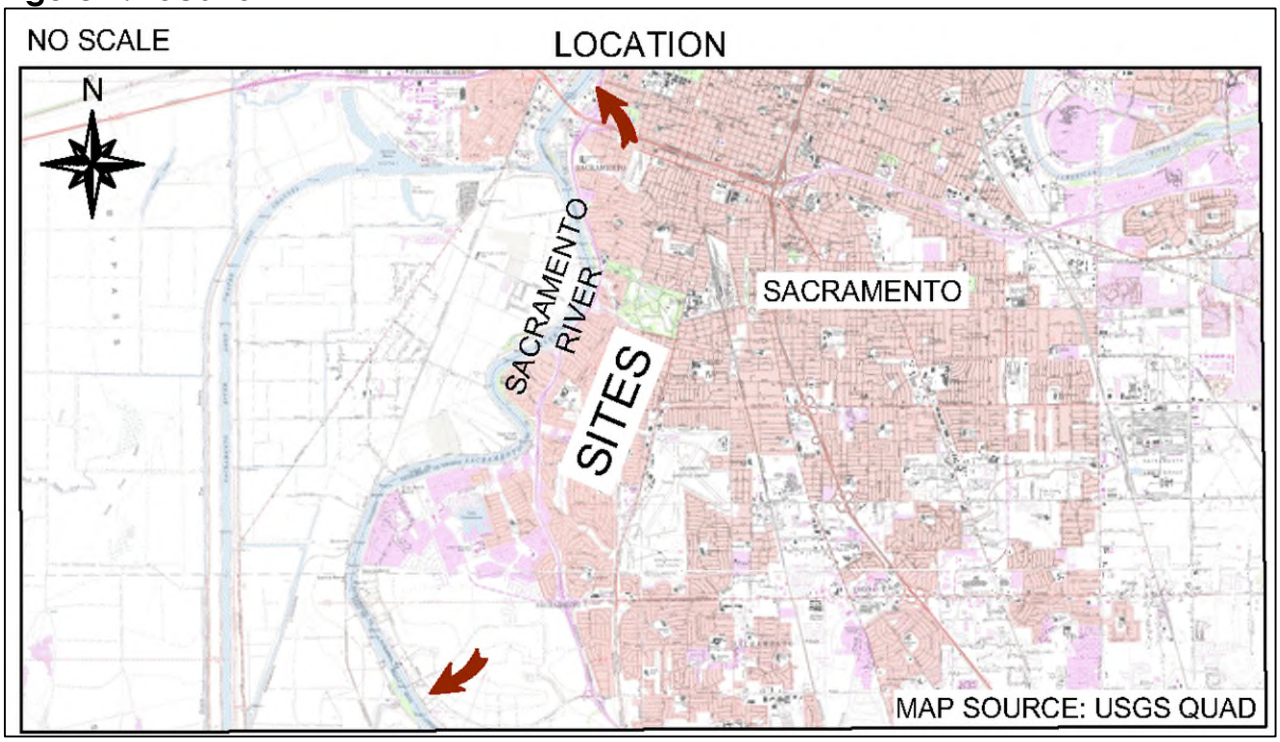
PROPOSED ACTION:

Issuance of a General Lease – Public Agency Use.

AREA, LAND TYPE, AND LOCATION:

Sovereign land in the Sacramento River, along the Sacramento River east levee between Front Street and the Pocket-Greenhaven neighborhood, from River Mile (RM) 49 to 59, near Sacramento, Sacramento County (as shown in Figure 1).

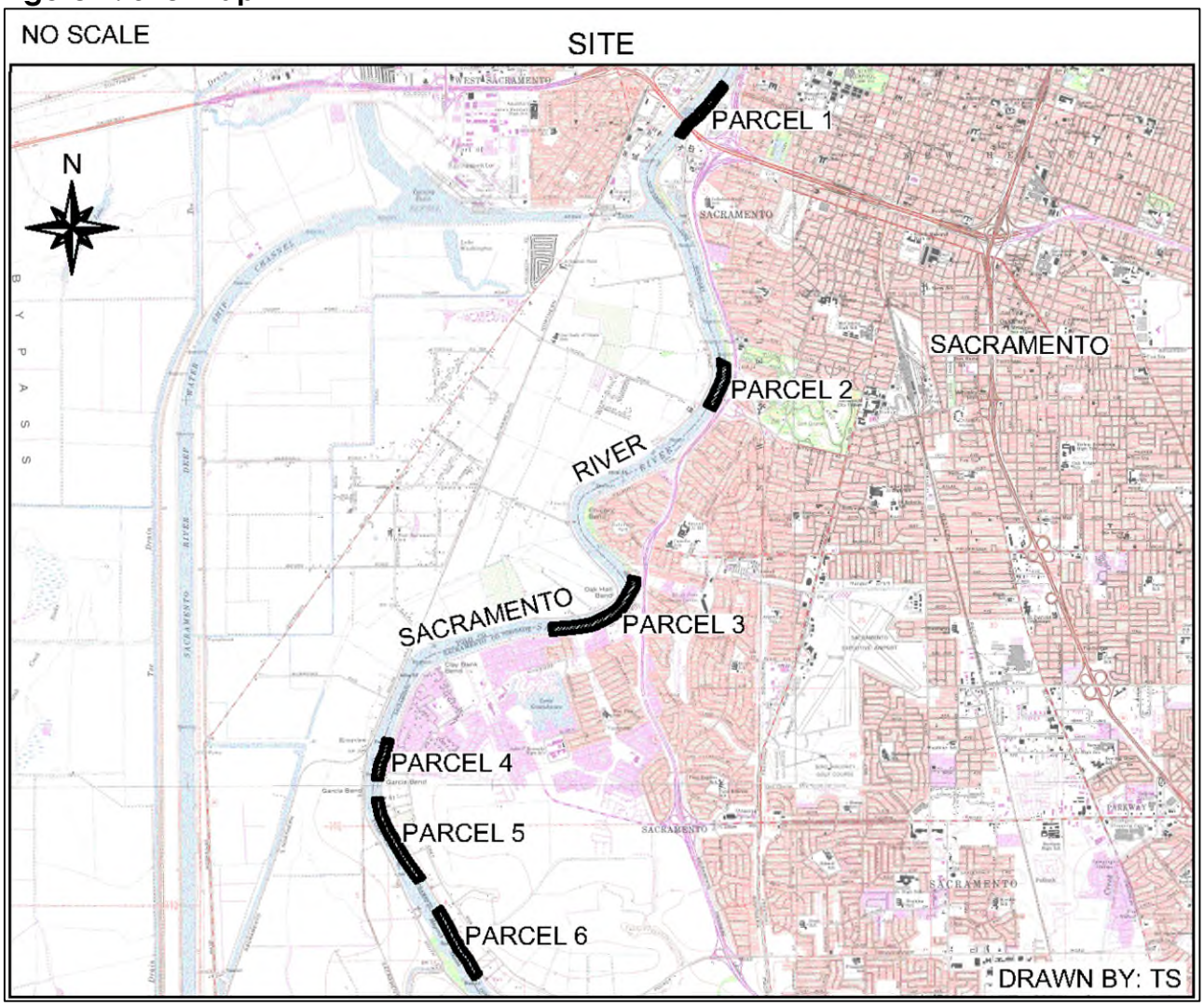
Figure 1. Location



AUTHORIZED USE:

Construction and use of erosion protection, including launchable rock toe protection, rock tie-backs, planting benches, and soil-filled rock slope protection as proposed in the American River Watershed Common Features, Water Resources Development Act of 2016 Project, Sacramento River Erosion Contract 2 (as shown in Figure 2).

Figure 2. Site Map



NOTE: This depiction of the lease premises is based on unverified information provided by the Applicant or other parties and is not a waiver or limitation of any State interest in the subject or any other property.

TERM:

49 years, beginning December 17, 2024.

CONSIDERATION:
Public use and benefit; with the State reserving the right at any time to set a monetary rent if the Commission finds such action to be in the State's best interests.

SPECIFIC LEASE PROVISIONS:

- Lessee shall place warning signage or buoys, or both, clearly visible from the shore and in the water, both upstream and downstream of the construction sites, to provide notice of the construction and to advise the public to exercise caution. Lessee shall place and maintain such signage during the term of the construction and shall notify the California Department of Parks and Recreation's Division of Boating and Waterways of the location, description, and purpose of such signage upon installation and removal.
- Provisions requiring Lessee to comply with certain safety and construction standards.

BACKGROUND:

Following extensive flooding in 1986, and severe impacts to Sacramento's levee system, Congress directed the U.S. Army Corps of Engineers (USACE) to investigate additional means to reduce flood risk to Sacramento. USACE completed this investigation in 1991, recommending levee improvements downstream of Folsom Dam. As a result of subsequent studies, the American River Common Features Project (ARCF) was authorized in the Water Resources Development Act (WRDA) of 1996, Pub. L. No. 104-303, § 101(a)(1) (WRDA 1996).

Major components of the ARCF within WRDA 1996 included construction of seepage remediation along approximately 22 miles of American River levees, levee strengthening, and the raising of 12 miles of the Sacramento River levee in the Natomas Basin. Over time, the ARCF Project has expanded and, in 2016, an extensive program of levy strengthening and erosion repair along the Sacramento and American rivers was analyzed in the American River Watershed Common Features General Reevaluation Report (ARCF GRR) Environmental Impact Statement/Environmental Impact Report (EIS/EIR). The proposed Project is the second of four contracts planned to address bank erosion concerns along the Sacramento River east levee.

PROJECT DESCRIPTION:

The Project would improve approximately 14,950 linear feet of bank protection and planting benches along the Sacramento River east levee between Front Street and the Pocket-Greenhaven neighborhood of Sacramento (from RM 49 to 58, at six sites).

The following construction activities are planned at each site:

- Site 1 (RM 58.00 to 58.65) – bank protection.
- Site 2 (RM 55.50 to 56.20) – bank protection and planting benches. Existing embankment and concrete material would be removed up to the levee crown and replaced with compacted clay.
- Site 3 (RM 53.50 to 53.80 and 53.0 to 53.50) – bank protection improvements and planting bench.
- Site 4 (RM 51.15 to 51.30) – bank protection improvements and planting bench.
- Site 5 (RM 50.66 to 51.15) – bank protection improvements and planting benches.
- Site 6 (RM 49.45 to 50.60) – bank protection improvements and planting benches.

The proposed rock bank protection is designed to prevent bank erosion and resist wave wash. A launchable rock toe would provide resilience against riverbed scour since the rocks would launch into any voids created and fill any holes created beneath them. Vegetation would be removed to prepare for construction. A river barge equipped with a clamshell would be used to place quarry stones and shape the bank protection measures at each of the locations, and an excavator would be used to trench keys. Keys are perpendicular to high-flow and are used to connect a tieback or upstream and downstream ends of the revetment into the bank. Tiebacks would be spaced intermediately to tie the revetment section into the key. Soil-filled quarry stone would also be placed, and brush layering of live willow cuttings and placement of instream woody material may also be used to provide slope stability and provide a habitat benefit.

The design is planned to reduce impacts to habitat and provide new habitat with low elevation planting benches. The benches would be composed of a planting soil mix to support vegetation, providing overhead cover and near-shore aquatic habitat during the low-flow season for listed fish species and other local wildlife. The

width of the benches would vary between approximately 16-feet-wide and 36-feet-wide. Temporary irrigation systems would be installed for the establishment and maintenance period of the planting benches.

STAFF ANALYSIS AND RECOMMENDATION:

AUTHORITY:

Public Resources Code sections 6005, 6216, 6301, 6321, 6321.2, 6501.1, and 6503; California Code of Regulations, title 2, sections 2000 and 2003.

PUBLIC TRUST AND STATE'S BEST INTERESTS:

The CVFPB applied for a General Lease – Public Agency Use for the construction and use of erosion protection including launchable rock toe protection, rock tie-backs, planting benches, and soil-filled rock slope protection under the Project.

The Applicant is responsible for ensuring that levees are maintained in a manner that reduces the risk of flooding and works in partnership with the USACE, California Department of Water Resources, and the Sacramento Area Flood Control Agency. The Project would protect and strengthen the Sacramento River east levee to reduce riverbank erosion and reduce flood risk within the Sacramento metropolitan area. The high risk of flooding from levee failure threatens public safety, property, and critical infrastructure throughout Sacramento. Multiple erosion control measures are planned to allow conveyance of the 200-year flood flow without risk of levee failure.

The Applicant has requested a 49-year lease term for various reasons, the most pertinent being that the USACE requires that the Applicant have control over the land for the life of the project, anticipated for over 50 years. Given that the Commission is not able to lease lands for more than 49-years, nor alienate sovereign Public Trust Lands, a 49-year lease is proposed as a compromise that satisfies federal requirements for the Project.

While the proposed project will temporarily impact Public Trust uses while underway, the Applicant has agreed to limit such impacts to the extent necessary to protect the public health and safety during the construction activity. Given the overall public value of this project, staff believe the proposed Project does not constitute an unreasonable interference with the Public Trust uses at this time and is in the best interests of the State. The Project's purpose is to provide enhanced levee

erosion protection, protecting the public and Public Trust resources from potential flooding while preserving public access along the levee to the extent feasible and safe during the construction.

The proposed lease does not alienate the State's fee simple interest or permanently impair public rights. The lease requires the Applicant to conduct all construction and maintenance work safely and indemnify the Commission in the event of any liability resulting from the proposed action.

CLIMATE CHANGE:

Climate change impacts, including sea level rise, more frequent and intense storm events, and increased flooding and erosion affect both open coastal areas and inland waterways in California. The subject activities are located adjacent to the Sacramento River, in a tidally influenced site vulnerable to flooding at current sea levels and at a higher risk of flood exposure given projected scenarios of sea level rise.

The California Ocean Protection Council updated the *State of California Sea-Level Rise Guidance* in 2018 to provide a synthesis of the best available science on sea level rise projections and rates. Commission staff evaluated the "high emissions," "medium-high risk aversion" scenario to apply a conservative approach based on both current emission trajectories and the lease location and structures. The San Francisco tide gauge was used for the projected sea level rise scenario for the region as listed in Table 1.

Table 1. Projected Sea Level Rise for San Francisco

Year	Projection (feet)
2030	0.8
2040	1.3
2050	1.9
2100	6.9

Source: Table 13, State of California Sea-Level Rise Guidance: 2018 Update
Note: Projections are with respect to a 1991 to 2009 baseline.

Sea level rise could increase the Sacramento River's inundation levels within the lease area. In addition, as stated in *Safeguarding California Plan: 2018 Update* (California Natural Resources Agency 2018), climate change is projected to increase the frequency and severity of natural disasters related to flooding and storms (especially when coupled with sea level rise). In rivers and tidally influenced waterways, more frequent and powerful storms can result in increased flooding

conditions and damage from storm-created debris as well as decreased bank stability and structure. Conversely, climate change induced droughts could decrease river levels and flow for extended periods of time. Climate change and sea level rise will further influence riverine areas by changing erosion and sedimentation rates. Flooding and storm flow, as well as runoff, will likely increase scour and decrease bank stability at a faster rate.

The proposed Project activities are specifically to install levee improvements to reduce risks of levee failure, especially related to seepage, under-seepage, and levee stability. The Project includes the addition of rock bank protection and the installation of nature-based solutions including riparian benches and in-stream woody material to prevent erosion along the Sacramento River. Activities on State lands would be short-term and consist of in-water work to improve existing facilities and reduce the potential for future impacts from climate change.

However, as sea levels rise, the bank protection will provide less defense against flood waters, increasing the vulnerability of the upland parcel. Maintaining a wide buffer between the bank and any upland improvements will minimize potential impacts from flooding and erosion. Any future construction or activities on state land would require a separate authorization from the Commission.

Regular maintenance, as referenced in the lease, may reduce the likelihood of severe structural degradation or dislodgement. Pursuant to the proposed lease, the Applicant acknowledges that the lease premises are located in an area that may be subject to the effects of climate change, including sea level rise.

CONCLUSION:

For all the reasons above, staff believe the issuance of this lease will not substantially interfere with Public Trust needs at this location, at this time, and for the term of the proposed lease; and is in the best interests of the State.

OTHER PERTINENT INFORMATION:

1. Approval or denial of the application is a discretionary action by the Commission. Each time the Commission approves or rejects a use of sovereign land, it exercises legislatively delegated authority and responsibility as trustee of the State's Public Trust lands as authorized by law. The lessee also has no right to a new lease or to renewal of any previous lease.

2. This action is consistent with the "Meeting Evolving Public Trust Needs" and "Leading Climate Activism" Strategic Focus Areas of the Commission's 2021-2025 Strategic Plan.

3. The Applicant has also submitted an application (A3065) for similar work adjacent to the right bank of the American River from River Mile (RM) 7.45 to 7.65 at the Howe Avenue Bridge, near Sacramento, Sacramento County. That application will be considered under a separate staff report at the same Commission meeting.

4. An EIR, State Clearinghouse No. 2005072046, and a Supplemental EIR, State Clearinghouse No. 2022040317, were prepared for this project by the Central Valley Flood Protection Board (CVFPB) and certified on June 9, 2016, and October 28, 2022, respectively. As part of its project approvals, the CVFPB made a Statement of Findings and Statement of Overriding Considerations for the American River Watershed Common Features, Water Resources Development Act of 2016 Project, Sacramento River Erosion Contract 2 and adopted Mitigation Monitoring and Reporting Programs.

   Staff has reviewed these documents and prepared an independent Mitigation Monitoring Program (MMP) (attached, Exhibit A) that incorporates the CVFPD's documents. Staff recommend adoption of Exhibit A by the Commission. Staff also prepared Findings made in conformance with the State CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15091, 15096) contained in the attached Exhibit B.

   Staff determined that 11 potential resource areas would have impacts that are less than significant with implementation of mitigation measures. Staff also identified in the Findings that the project could cause potentially significant impacts to Vegetation and Wildlife, Visual Resources, and Recreation from the removal of riparian vegetation and construction activities on the Sacramento River (hauling of material and equipment via barges) despite the implementation of all applicable measures. Staff prepared a Statement of Overriding Considerations made pursuant to the State CEQA Guidelines (Cal. Code Regs., tit. 14, § 15093) that balances the benefits of the project against its unavoidable impacts and finds that the potential impact is acceptable in light of the project benefits. Staff recommends the Commission adopt the Findings and Statement of Overriding Considerations contained in the attached Exhibit B.

5. This activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code section 6370 et seq., but such activity

will not affect those significant lands. Based on the participation from the agency nominating such lands through the CEQA review and permitting process, it is staff's opinion that the project, as proposed, is consistent with its use classification.

APPROVALS OBTAINED:

- Central Valley Regional Water Quality Control Board
- U.S. Fish and Wildlife Service
- National Marine Fisheries Service

EXHIBITS:

A. Mitigation Monitoring Program

B. Findings and Statement of Overriding Considerations

RECOMMENDED ACTION:

It is recommended that the Commission:

CEQA FINDING:

Find that an EIR, State Clearinghouse No. 2005072046, and a Supplemental EIR, State Clearinghouse No. 2022040317, were prepared for this project by the Central Valley Flood Protection Board and certified on June 9, 2016, and October 28, 2022, respectively, and that the Commission has reviewed and considered the information contained therein; that in the Commission's independent judgment, the scope of activities to be carried out under the lease to be issued by this authorization have been adequately analyzed; that none of the events specified in Public Resources Code section 21166 or the State CEQA Guidelines section 15162 resulting in any new or substantially more severe significant impact have occurred; and, therefore no additional CEQA analysis is required.

Adopt the Mitigation Monitoring Program, as contained in the attached Exhibit A.

Adopt the Findings and the Statement of Overriding Considerations, made in conformance with California Code of Regulations, title 14, sections 15091, 15093, and 15096, subdivision (h) as contained in Exhibit B.

PUBLIC TRUST AND STATE'S BEST INTERESTS:

Find that the proposed lease will not cause an unreasonable interference with the public rights to navigation, fishing, and commerce or cause an unreasonable interference with Public Trust needs and values at this location, at this time, and for the term of the lease; and is in the best interests of the State.

SIGNIFICANT LANDS INVENTORY FINDING:

Find that this activity is consistent with the use classification designated by the Commission for the land pursuant to Public Resources Code section 6370 et seq.

AUTHORIZATION:

Authorize issuance of a General Lease – Public Agency Use to the Applicant, beginning December 17, 2024, for a term of 49 years, for the construction and use of erosion protection including launchable rock toe protection, rock tie-backs, planting benches, and soil-filled rock slope protection; consideration being the public use and benefit, with the State reserving the right, at any time, to set a monetary rent as specified in the lease if the Commission finds such action to be in the State's best interests.

EXHIBIT A
CALIFORNIA STATE LANDS COMMISSION
MITIGATION MONITORING PROGRAM

AMERICAN RIVER WATERSHED COMMON FEATURES, WATER RESOURCES DEVELOPMENT ACT OF 2016 PROJECT, SACRAMENTO RIVER EROSION CONTRACT 2

(A3623, State Clearinghouse No. 2022040317)

The California State Lands Commission (Commission or CSLC) is a responsible agency under the California Environmental Quality Act (CEQA) for the American River Watershed Common Features, Water Resources Development Act of 2016 Project, Sacramento River Erosion Contract 2 (Project). The CEQA lead agency for the Project is the Central Valley Flood Protection Board.

In conjunction with approval of this Project, the Commission adopts this Mitigation Monitoring Program (MMP) for the implementation of mitigation measures for the portion(s) of the Project located on state lands. The purpose of an MMP is to impose feasible measures to avoid or substantially reduce the significant environmental impacts from a project identified in an Environmental Impact Report (EIR) or a Mitigated Negative Declaration (MND). State CEQA Guidelines section 15097, subdivision (a), states in part:

> *In order to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.*

The lead agency certified an Environmental Impact Study/EIR, State Clearinghouse (SCH) No. 2005072046, on June 9, 2016, and a Supplemental EIR/Environmental Assessment (SCH No. 2022040317) on October 28, 2022, and adopted Mitigation, Monitoring, and Reporting Programs (MMRPs) for the whole of the Project and the portion of the Project covered in the Supplemental EIR,

respectively (see Exhibit A, Attachment A-1). The lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with its program. The Commission's action and authority as a responsible agency apply only to the mitigation measures listed in Table A-1 below. The full text of each mitigation measure, as set forth in the MMRPs prepared by the CEQA lead agency and provided in Attachment A-1, is incorporated by reference in this Exhibit A. Any mitigation measures adopted by the Commission that differ substantially from those adopted by the lead agency are shown as follows:

- Additions to the text of the mitigation measure are <u>underlined</u>

Table A-1. Project Impacts and Applicable Mitigation Measures

Potential Impact	Mitigation Measure (MM)[1]	Difference Between CSLC MMP and Lead Agency MMRP
GEO-1	GEO-1	None
WATERS-1	WATERS-1, GEO-1	None
VEG-1	VEG-1, VEG-2	None
VEG-2	VEG-1, VEG-2	None
FISH-1	FISH-1, GEO-1, SRA-1	None
SSS-1	BIRD-1, VEG-1, VEG-2, SRA-1	None
SSS-2	TURTLE-1	None
SSS-3	PLANT-1	None
CR/TCR-1	CR-1, CR-2, CR-3, CR-4, CR-5	None
CR/TCR-2	CR-2, CR-3, CR-4, CR-5	MM CR-2 (see below)
CR/TCR-3	CR-6	None
AIR-1	AIR-1, AIR-2, AIR-3, AIR-4, AIR-5	None
GHG-1	GHG-1	None
GHG-2	GHG-1	None
NOI-1	NOI-1	None
VIS-1	VIS-1, VEG-1, VEG-2, SRA-1	None
VIS-2	VIS-1, VEG-1, VEG-2, SRA-1	None
REC-1	REC-2	None

[1] See Attachment A-1 for the full text of each MM taken from the MMRP prepared by the CEQA lead agency.

Addition to MM CR-2: Title to all archaeological sites and historic or cultural resources on or in the tide and submerged lands of California is vested in the State and under the jurisdiction of the Commission. Commission staff shall be notified of any cultural resources or paleontological specimens discovered on lands under the jurisdiction of the Commission. The final disposition of archaeological and historical resources or paleontological specimens from such lands must be approved by the Commission. In addition, if requested by a Tribe, a Native American Monitor shall remain onsite during Project construction.

ATTACHMENT A-1

Mitigation Monitoring and Reporting Program Adopted by the

Central Valley Flood Protection Board

Mitigation Monitoring and Reporting Program

American River Watershed Common Features, Water Resources Development Act of 2016 Project, Sacramento River Erosion Contract 2

SCH# 2022040317

Central Valley Flood Protection Board
3310 El Camino Avenue, Suite 170
Sacramento, CA 95821

Contact:

David Moldoff, Manager
Environmental Support Unit
Department of Water Resources
(916) 574-1441

Prepared by:
Susie Real
Environmental Scientist
Department of Water Resources
(916) 973-3014

October 2022

Abbreviations and Acronyms

APE	Area of Potential Effects
ARB	Air Resources Board
ARCF	American River Watershed Common Features
ARCF 2016 Project	American River Watershed Common Features Water Resources Development Act of 2016 Project
BAAQMD	Bay Area Air Quality Management District
BMP	Best Management Practice
BO	Biological Opinion
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCR	Code of California Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CRHR	California Register of Historic Resources
CVFPB	Central Valley Flood Protection Board
CWA	Clean Water Act
EA	Environmental Assessment
EIS	Environmental Impact Statement
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
GHG	Greenhouse Gas
GRR	General Reevaluation Report
HMMAMP	Habitat Mitigation, Monitoring, and Adaptive Management Plan
HPMP	Historic Properties Management Plan
HPTP	Historic Properties Treatment Plan
IWM	instream woody material
MLD	Most Likely Descendent
MMRP	Mitigation Monitoring and Reporting Program
NAHC	Native American Heritage Center

NEPA	National Environmental Policy Act
NOI	Notice of Intent
NO_x	Oxides of Nitrogen
NPDES	National Pollutant Discharge Elimination System
OHWM	Ordinary High Water Mark
PA	Programmatic Agreement
PM	Particulate matter
PM_{10}	Particulate matter 10 microns or less in diameter
PPV	Peak particle velocity
PRC	Public Resources Code
RWQCB	Regional Water Quality Control Board
SHPO	State Historic Preservation Office
SMAQMD	Sacramento Metropolitan Air Quality Management District
SPCCP	Spill Prevention Control and Countermeasures Plan
SRA	Shaded River Area
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
VdB	Velocity decibels

MITIGATION MONITORING AND REPORTING PROGRAM
AMERICAN RIVER WATERSHED COMMON FEATURES,
WATER RESOURCES DEVELOPMENT ACT OF 2016 PROJECT,
SACRAMENTO RIVER EROSION CONTRACT 2
SACRAMENTO, 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 Number – lists the adopted mitigation measures by number as designated in the Final Supplemental Environmental Impact Statement/Environmental Assessment (Supplemental EIS/EA).
- Mitigation Measure – Provides the text of the mitigation measures, each of which has been adopted and incorporated into the Sacramento River Erosion Contract 2 Project.
- 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.

Public Utilities

UTL-1

Verify Utility Locations, Coordinate with Affected Utility Owners/Providers, Prepare and Implement a Response Plan, and Conduct Worker Training with Respect to Accidental Utility Damage: The Project Partners (USACE, CVFPB, and SAFCA) would implement the measures listed below before construction begins to avoid and minimize potential damage to utilities, infrastructure, and service disruptions during construction.

- Coordinate with applicable utility and service providers to implement orderly relocation of utilities that need to be removed or relocated.
- Provide notification of any potential interruptions in service to the appropriate agencies and affected landowners.
- Verify through field surveys and the use of the Underground Service Alert services the locations of buried utilities in the Project Area, including natural gas, petroleum, and sewer pipelines. Any buried utility lines would be clearly marked in the area of construction (e.g., in the field) and on the construction specifications in advance of any earthmoving activities.
- Before the start of construction, prepare and implement a response plan that addresses potential accidental damage to a utility line. The plan would identify chain-of-command rules for notification of authorities and appropriate actions and responsibilities regarding the safety of the public and workers. A component of the response plan would include worker education training in response to such situations.
- Stage utility relocations during project construction to minimize interruptions in service.
- Communicate construction activities with first responders to avoid response delays due to construction detours.

Implementation Timing: Design, Pre-construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

Transportation and Circulation

TR-1

Prepare and Implement a Traffic Control and Road Maintenance Plan: Before the start of project-related construction activities, Project Partners would require the contractor to prepare a Traffic Control and Road Maintenance Plan. This plan would describe the methods of traffic control to be used during construction. All on-street

construction traffic would be required to comply with the local jurisdiction's standard construction specifications. The items listed below would be included in the plan and as terms of the construction contracts:

- Follow the standard construction specifications of affected jurisdictions and obtain the appropriate encroachment permits, if required. Incorporate the conditions of the encroachment permit into the construction contract. Encroachment permit conditions would be enforced by the agency that issues the encroachment permit.
- Provide adequate parking for construction trucks, equipment, and construction workers within the designated staging areas throughout the construction period. If inadequate space for parking is available at a given work site, the construction contractor would provide an off-site staging area and as needed, coordinate the daily transport of construction vehicles, equipment, and personnel to and from the work site.
- Proposed lane closures would be coordinated with the appropriate jurisdiction and be minimized to the extent possible during the morning and evening peak traffic periods. Construction specifications would limit lane closures during commuting hours where feasible, and lane closures would be kept as short as possible. If a road must be closed, detour routes and/or temporary roads would be made to accommodate traffic flows. Signs would be provided to direct traffic through detours.
- Post signs providing advance notice of upcoming construction activities at least 1 week in advance so that motorists are able to avoid traveling through affected areas during these times.
- Provide bicycle detours to allow for continued use by bicycle commuters. Maintain safe pedestrian and bicyclist access around the construction areas at all times. Construction areas would be secured as required by the applicable jurisdiction to prevent pedestrians and bicyclists from entering the work site, and all stationary equipment should be located as far away as possible from areas where bicyclists and pedestrians are present.
- Notify (by means such as physical signage, internet postings, letters, or telephone calls) and consult with emergency service providers to inform them of construction activities, maintain emergency access, and facilitate the passage of emergency vehicles on city streets during construction activities. Emergency vehicle access would be made available at all times.
- The construction contractor would document pre- and post- construction conditions on roadways used during construction. This information would be

used to assess damage to roadways used during construction. The contractor would repair all potholes, fractures, or other damages.
- Comply with Caltrans requirements by submitting this Traffic Control and Road Maintenance Plan to Caltrans for review to cover points of access from the State highway system (I-5) for haul trucks and other construction equipment.

Implementation Timing: Design, Pre-construction, Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

Geological Resources

GEO-1

Acquire Appropriate Regulatory Permits and Prepare and Implement a Storm Water Pollution Prevention Plan, Spill Prevention Control and Countermeasures Plan, and Associated Best Management Practices: Prior to the start of earthmoving activities, the Project Partners will obtain coverage under the State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) stormwater permit for general construction activity (Order 2009-0009-DWQ), including preparation and submittal of a project-specific SWPPP at the time the Notice of Intent (NOI) to discharge is filed. The SWPPP shall identify and specify the following:

- The use of an effective combination of robust erosion and sediment control Best Management Practices (BMPs) and construction techniques that shall reduce the potential for runoff and the release, mobilization, and exposure of pollutants, including legacy sources of mercury from project-related construction sites. These may include but would not be limited to temporary erosion control and soil stabilization measures, sedimentation ponds, inlet protection, perforated riser pipes, check dams, and silt fences;
- The implementation of approved local plans, non-stormwater management controls, permanent post-construction BMPs, and inspection and maintenance responsibilities;
- The pollutants that are likely to be used during construction that could be present in stormwater drainage and non-stormwater discharges, including fuels, lubricants, and other types of materials used for equipment operation;
- The means of waste disposal;
- Spill prevention and contingency measures, including measures to prevent or clean up spills of hazardous waste and of hazardous materials used for equipment operation, and emergency procedures for responding to spills;

- Personnel training requirements and procedures that shall be used to ensure that workers are aware of permit requirements and proper installation methods for BMPs specified in the Stormwater Pollution Prevention Plan (SWPPP);
- The appropriate personnel responsible for supervisory duties related to implementation of the SWPPP.
- Where applicable, BMPs identified in the SWPPP will be in place throughout all site work, construction/demolition activities, and will be used in all subsequent site development activities. BMPs may include, but are not limited to, such measures as those listed below.
- Work window- conduct earthwork during low flow periods (June 1 to October 31);
- To the extent possible, stage construction equipment and materials on the landside of the levee in areas that have already been disturbed;
- Minimize ground and vegetation disturbance during project construction by establishing designated equipment staging areas, ingress and egress corridors, spoils disposal and soil stockpile areas, and equipment exclusion zones prior to the commencement of any grading operations;
- Stockpile soil on the landside of the levee reaches, and install sediment barriers (e.g., silt fences, fiber rolls, and straw bales) around the base of stockpiles to intercept runoff and sediment during storm events. If necessary, cover stockpiles with geotextile fabric to provide further protection against wind and water erosion;
- Install sediment barriers on graded or otherwise disturbed slopes as needed to prevent sediment from leaving the project site and entering nearby surface waters;
- Install plant materials to stabilize cut and fill slopes and other disturbed areas once construction is complete. Plant materials will include an erosion control seed mixture or shrub and tree container stock. Temporary structural BMPs, such as sediment barriers, erosion control blankets, mulch, and mulch tackifier, will be installed as needed to stabilize disturbed areas until vegetation becomes established;
- Conduct water quality tests specifically for increases in turbidity and sedimentation caused by construction activities;
- A copy of the approved SWPPP shall be maintained and available at all times on the construction site; and
- Project partners will also prepare a Spill Prevention Control and Countermeasure Plan (SPCCP). A SPCCP is intended to prevent any discharge of oil into navigable water or adjoining shorelines. The contractor will develop and implement a SPCCP to minimize the potential for adverse effects from spills of hazardous, toxic, or petroleum substances during construction and operation activities. The SPCCP will be completed before any construction activities begin.

Implementation of this measure will comply with state and Federal water quality regulations. The SPCCP will describe spill sources and spill pathways in addition to the actions that would be taken in the event of a spill (e.g., an oil spill from engine refueling would be immediately cleaned up with oil absorbents). The SPCCP will outline descriptions of containments facilities and practices such as doubled-walled tanks, containment berms, emergency shut-offs, drip pans, fueling procedures, and spill response kits. It will also describe how and when employees are trained in proper handling procedures and spill prevention and response procedures.

Implementation Timing: Design, Pre-construction, Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

Water Quality

WATERS-1

Compensate for Fill of State and Federally Protected Waters: In compliance with the Clean Water Act (CWA), the Project Partners will compensate for fill of State and Federally protected waters to ensure no net loss of functions and values. Water quality certification pursuant to Section 401 of the CWA will be obtained from the Central Valley Regional Water Quality Control Board (RWQCB) before starting project activities subject to Section 401. Any measures determined necessary during the permitting processes will be implemented, such that there is no net loss of functions and values of jurisdictional waters.

Mitigation may be accomplished through habitat replacement, enhancement of degraded habitat, off-site mitigation at an established mitigation bank, contribution of in-lieu fees, or other methods acceptable to the regulatory agencies, ensuring there is no net loss of waters of the United States. If compensation is provided through permittee-responsible mitigation with additional National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) documentation, a mitigation plan will be developed to detail appropriate compensation measures determined through consultation with USACE and Central Valley RWQCB. These measures will include

methods for implementation, success criteria, monitoring and reporting protocols, and contingency measures to be implemented if the initial mitigation fails.

Implementation Timing: Pre-construction, Construction, O&M
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

Vegetation and Wildlife

VEG-1

Retain, Protect, and Plant Trees On-Site: Project designs will be refined to reduce impacts on vegetation and wildlife to the extent practicable. Refinements implemented to reduce the loss of riparian habitat will include reducing the impact footprint, constructing bank protection rather than launchable rock trench whenever feasible, and designing planting benches. Where practicable, trees will be retained in locations where the bank protection and planting benches is constructed. Trees will be protected in place along the natural channel during rock placement. Additional plantings will be installed on the newly constructed benches to provide habitat for fish and avian species. The planting benches will be used where practicable to minimize impacts on fish and wildlife species. The on-site habitat will be created in accordance with the ARCF GRR Habitat Mitigation, Monitoring, and Adaptive Management Plan, which includes conceptual mitigation proposals, performance standards, and adaptive management tasks.

Implementation Timing: Design, Pre-construction, Construction, M
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

VEG-2

Compensate for Riparian Habitat Removal: The Project Proponent will implement the following measures to compensate for riparian habitat degradation:

To compensate for the removal of riparian habitat (up to 3 acres), replacement habitat will be created at a ratio of 2:1 to account for the temporal loss of habitat while newly created habitat is growing. Species selected to compensate for the riparian corridor removal will be consistent with the approved list of trees, shrubs, and herbaceous plants native to the Great Valley Mixed Riparian Forest. The replacement habitat will be created in accordance with the ARCF GRR Habitat Mitigation, Monitoring, and Adaptive

Management Plan, which includes conceptual mitigation proposals, performance standards, and adaptive management tasks.

After construction has been completed, approximately 3 acres of riparian vegetation will be planted on-site in the planting benches. The remaining compensation for the temporal loss of riparian vegetation and habitat will be off-site and occur at locations protected in perpetuity, and may include purchase of mitigation bank credits. These sites will be selected and designed in coordination with National Marine Fisheries Service (NMFS) and United State Fish and Wildlife Service (USFWS) as part of the consultation under the Endangered Species Act.

Implementation Timing: Construction, O&M
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

SRA-1

Implement Measures to Avoid, Minimize, and Compensate for Effects on Shaded Riverine Aquatic Habitat: USACE will implement the following avoidance, minimization, and compensation measures.

- For identified designated critical habitat of listed fish species, where feasible, all efforts will be made to compensate for impacts where they have occurred, or elsewhere in the Sacramento or American River Basins. Impacts on designated critical habitat, Shaded River Area (SRA) habitat, and instream components combined, and the compensation value of replacement habitat will be informed by a qualitative assessment of habitat value from an agency-approved model. The amount of mitigation will be assessed by calculating the area of impact below the Ordinary High Water Mark (OHWM) combined with the qualitative model assessment.
- USACE will compensate for SRA habitat losses either by constructing off-site compensation sites, purchase of credits at a NMFS-approved conservation bank where appropriate, or by implementing a combination of the two, and by funding a research grant for green sturgeon. USACE will compensate for lost habitat using NMFS-approved mitigation actions at a 1:1 ratio prior to construction, 2:1 ratio during construction, or a 3:1 ratio if mitigation actions occur after construction. SRA habitat compensation sites will be established in coordination with NMFS and USFWS as part of consultation under Section 7 of the Endangered Species Act for the ARCF GRR. On-site created SRA habitat acreage will also be counted toward offsetting lost SRA habitat.

- As described in the Habitat Mitigation, Monitoring, and Adaptive Management Plan, compensation sites will be monitored, and vegetation will be replaced as necessary based on performance standards described in the plan.
-

Implementation Timing: Construction, O&M
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

Fisheries

FISH-1

Implement Measures to Avoid and Minimize Effects on Listed Fish Species: To avoid and minimize effects on listed fish species, the following measures will be implemented by the Project Partners:

- In-water construction activities (all activities below the OHWM including placement of rock revetment) will be limited to the work window of July 1 through October 31. The in-water work window could be extended to November 15 with NMFS approval. If USACE needs to work outside of this window, it will consult with USFWS and NMFS.
- Erosion control measures (BMPs) will be implemented, including a SWPPP and Water Pollution Control Plan, to minimize the entry of soil or sediment into the Sacramento River. BMPs will be installed, monitored for effectiveness, and maintained throughout construction operations to minimize effects on federally listed fish and their designated critical habitat. Maintenance will include daily inspections of all heavy equipment for leaks.
- USACE will stockpile construction materials, such as portable equipment, vehicles, and supplies, at designated construction staging areas and barges.
- USACE will stockpile all liquid chemicals and supplies at a designated impermeable membrane fuel and refueling station with a 110% containment system (container with 10% extra capacity).
- USACE will limit site access to the smallest area possible to minimize disturbance.
- USACE will minimize ground and vegetation disturbance during project construction, and clearly mark project limits, including the boundaries of designated equipment staging areas; ingress and egress corridors; stockpile areas for spoils disposal, soil, and materials; and equipment exclusion zones.
- USACE and construction contractors will observe a 20-mile-per-hour speed limit or less within construction areas for all project-related vehicles, except on County roads and on State and Federal highways.

- USACE will secure or remove litter and debris from the project daily. Such materials or waste will be deposited at an appropriate disposal or storage site.
- USACE will immediately (within 24 hours) clean up and report any spills of hazardous materials to the USFWS, NMFS, and California Department of Fish and Wildlife (CDFW). Any such spills, and the success of the efforts to clean them up, shall also be reported in post-construction compliance reports.
- USACE will screen any water pump intakes prior to project activities, such as irrigation or dewatering, to maintain an approach velocity of 0.2 feet per second or less when working in areas that may support Federally listed fish species.
- USACE will participate in an existing Interagency Working Group or work with other agencies to participate in a new Bank Protection Working Group to coordinate stakeholder input into future flood risk reduction actions associated with the ARCF 2016 Project, Sacramento River Erosion Contract 2.
- USACE will coordinate with NMFS during pre-construction engineering and design as future flood risk reduction actions are designed to ensure that conservation measures are incorporated to the extent practicable and feasible and projects are designed to maximize ecological benefits.
- USACE will include a Riparian Corridor Improvement Plan as part of the project, with the overall goal of maximizing the ecological function and value of the existing levee system in the Sacramento metropolitan area.
- USACE will implement a Habitat Mitigation, Monitoring, and Adaptive Management Plan (HMMAMP) with an overall goal of ensuring that the conservation measures achieve a high level of ecological function and value. The HMMAMP would include:
    - Specific goals and objectives and a clear strategy for maintaining all project conservation elements for the life of the project.
    - Measures to be monitored by USACE for 10 years after construction. USACE will update its O&M manual to ensure that the HMMAMP is adopted by the local sponsor to ensure that the goals and objectives of the conservation measures are met for the life of the project.
    - Specific goals and objectives and a clear strategy for achieving full compensation for all project-related impacts on listed fish species.
- USACE will continue to coordinate with NMFS during all phases of construction, implementation, and monitoring by hosting annual meetings and issuing annual reports throughout the construction period as described in the HMMAMP.
- USACE will seek to avoid and minimize adverse construction effects on listed species and their critical habitat to the extent feasible and will implement on-site and off-site compensation actions as necessary.

- For identified designated critical habitat, where feasible, all efforts will be made to compensate for impacts where they have occurred or in close proximity. USACE will develop and implement a compensatory mitigation accounting plan and associated monitoring and adaptive management plans for on-site mitigation efforts. Monitoring for the establishment of riparian tree and shrub species within shaded riparian aquatic habitat is expected to last approximately 5 to 8 years, not to exceed 10 years. Establishment success will be based on criteria determined on a site-by-site basis with NMFS. Once the monitoring period is complete, all vegetation maintenance and monitoring will transfer and be the responsibility of the non-Federal sponsor and local maintaining agency. USACE will continue to coordinate with NMFS during all phases of construction, implementation, and monitoring by hosting meetings and issuing annual reports throughout the construction period.
- USACE will minimize the removal of existing riparian vegetation and instream woody material (IWM) to the maximum extent practicable. Where appropriate, removed IWM will be anchored back into place, or if not feasible, new IWM will be anchored in place.
- USACE will minimize the removal of existing vegetation during project-related activities. If needed, removed or disturbed vegetation will be replaced with native riparian vegetation. USACE will also ensure that the planting of native vegetation would occur as described in the HMMAMP. All plantings must be provided with the appropriate amount of water to ensure successful establishment.
- USACE will provide a copy of the Biological Opinion (BO), or similar documentation, to the prime contractor, making the prime contractor responsible for implementing all requirements and obligations included in the documents and for educating and informing all other contractors involved in the project as to the requirements of the BOs. A notification that contractors have been supplied with this information will be provided to NMFS. A NMFS-approved Worker Environmental Awareness Training Program for construction personnel will be conducted by the NMFS-approved biologist for all construction workers before initiating construction activities. The program will provide workers with information on their responsibilities with regard to Federally listed fish, their critical habitat, an overview of the life-history of all the species, information on take prohibitions, protections afforded these animals under the Endangered Species Act (ESA), and an explanation of the relevant terms and conditions of the issued BO. Written documentation of the training will be submitted to NMFS within 30 days of the completion of training.
- USACE will designate a NMFS-approved biologist as the point-of-contact for any contractor who might incidentally take a living, or find a dead, injured, or

entrapped threatened or endangered species. This representative will be identified to the employees and contractors during all employee education programs. If lethal take is to occur on any ESA-listed species, USACE and NMFS will be contacted immediately.

- USACE will avoid adverse effects from nighttime construction activities. USACE will use the minimal amount of lighting necessary to safely and effectively illuminate the work areas. USACE will shield and focus lights on work areas and away from the water surface (e.g., Sacramento River), to the maximum extent practicable.
- USACE will conduct acoustic fish monitoring at ARCF sites pre-construction, during construction, and post-construction. For erosion prevention features along the Sacramento River, USACE will conduct telemetry monitoring of green sturgeon for 3 years post-construction. Acoustic telemetry will occur in the ARCF action area and would involve staff monitoring of the real-time telemetry data available online.
- USACE will continue to implement a benthic substrate sampling monitoring program to coincide with the need for the Green Sturgeon Habitat Mitigation and Monitoring Plan. Substrate sampling that will occur in the ARCF action area will include pre-construction, during construction, and post-construction sampling within construction-impacted areas.
- USACE will identify all habitats containing, or with a substantial possibility of containing, listed terrestrial, wetland, aquatic, and/or plant species in the potentially affected project areas. The project will minimize effects by modifying engineering design to avoid potential effects.
- USACE will install IWM on a case-by-case basis where it is compatible with erosion protection measures being installed to provide a portion of the on- site mitigation for lost SRA from the project. The purpose of IWM is to enhance the structural diversity of the shoreline, with woody material being a component of SRA, and ultimately to maximize the refugia and rearing habitats for juvenile fish.
- USACE will protect in place all riparian vegetation on the lower waterside slope of any levee, unless removal is specifically approved by NMFS, following completion of project construction.

Implementation Timing: Design, Pre-construction, Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

Special-Status Species

VELB-1

Implement Current USFWS Avoidance, Minimization, and Compensation Measures for Valley Elderberry Longhorn Beetle: USACE would implement the following measures in accordance with the *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle* (USFWS 2017) to reduce effects on valley elderberry longhorn beetle:

- Fencing. All areas to be avoided during construction activities would be fenced and/or flagged as close to construction limits as feasible.
- Avoidance area. To the extent feasible, activities that may damage or kill an elderberry shrub (e.g., trenching, paving, etc.) would be avoided within 20 feet from the drip-line of the shrub.
- Worker education. A qualified biologist would provide training for all contractors, work crews, and any onsite personnel on the status of valley elderberry longhorn beetle, its host plant and habitat, the need to avoid damaging elderberry shrubs, and the possible penalties for noncompliance.
- Construction monitoring. A qualified biologist would monitor the work area at appropriate intervals to assure that all avoidance and minimization measures are implemented
- Timing. To the extent feasible, activities within 165 feet of an elderberry shrub would be conducted outside of the valley elderberry longhorn beetle flight season (March - July).
- Trimming. To the extent feasible, elderberry shrub trimming would occur between November and February and avoid the removal of any branches or stems greater than or equal to 1 inch in diameter.
- Chemical Usage. Herbicides would not be used within the drip-line, and insecticides would not be used within 100 feet of an elderberry shrub. All chemicals would be applied using a backpack sprayer or similar direct application method.
- Mowing. Mechanical weed removal within the drip-line of elderberry shrubs would be limited to the season when adults are not active (August - February) and would avoid damaging the shrub.
- Transplanting. To the extent feasible, elderberry shrubs would be transplanted when the shrubs are dormant (November through the first 2 weeks in February) and after they have lost their leaves. Exit-hole surveys will be completed immediately before transplanting. A qualified biologist would be on-site for the duration of transplanting activities to assure compliance with avoidance and minimization measures and other conservation measures.

- Compensation. Effects would be compensated at ratios ranging from 1:1 to 3:1, depending on the compensation approach and circumstances of the affected shrubs. Affected area would be re- vegetated with appropriate native plants.

Implementation Timing: Design, Pre-construction, Construction, O&M
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

BIRD-1

Implement Measures to Protect Nesting Special-Status and Migratory Birds: The Project Partners would implement the following measures to minimize potential effects on active nests of Swainson's hawk, white-tailed kite, purple martin, and other migratory birds:

- Before on-site project activities begin, all construction personnel would participate in a worker environmental awareness program. A qualified biologist would inform all construction personnel about the life history of Swainson's hawk and the importance of nest sites.
- For Swainson's hawk, follow the survey guidelines for the Swainson's Hawk Technical Advisory Committee 2000. If active nests are found within 0.5 miles of construction activities, consult with CDFW on further action including buffer areas, mitigation, and monitoring.
- For purple martin and white-tailed kite, a survey would also be conducted for active nests within 500 feet of construction activities. For all other migratory birds, the survey would cover active nests within 100 feet of construction activities. These surveys could be conducted concurrent with Swainson's hawk surveys, so long as one survey is conducted no more than 48 hours from the initiation of project activities. If the biologist determines that the area surveyed does not contain any active nests, construction activities, including removing or pruning trees and shrubs, the project can commence.
- For any active migratory bird nest found, a protective buffer would be established and implemented until the nest is no longer active. The size of the buffer would be determined based on the species, nest stage, type, and intensity of project disturbance in the nest vicinity, presence of visual buffers, and other variables that may affect susceptibility of the nest to disturbance. A qualified biologist would monitor the nest during project activities to confirm effectiveness of the buffer and adjust the buffer as needed to ensure project activities do not adversely affect behavior of adults or young. Buffers would be marked in the field

by a qualified biologist using high visibility flagging tape or other means that are effective in clearly delineating the buffers.

- Tree and shrub removal and other clearing, grading, and construction activities that remove vegetation would not be conducted during the nesting season (generally February 15 to September 30, depending on the species and environmental conditions for any given year). If construction activities that require tree and shrub removal occur during the nesting season, the Project Partners will implement surveys as described in this measure. If active nests are encountered, protective buffers would be implemented as described.

Implementation Timing: Design, Pre-construction, Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

TURTLE-1

Implement Measures to Protect Western Pond Turtle: The Project Partners will implement the following measures, to avoid and minimize effects on western pond turtle:

- A qualified biologist would conduct a pre-construction survey within 24 hours before the start of project activities. If no western pond turtles are observed, USACE would document that information for the file, and no additional measures would be required.
- If western pond turtles are observed on land within the construction footprint during project activities, USACE would stop work within approximately 200 feet of the turtle, and a qualified biologist would be notified immediately. If possible, the turtle would be allowed to leave on its own and the qualified biologist would remain in the area until the biologist deems his or her presence no longer necessary to ensure that the turtle is not harmed. Alternatively, with prior CDFW approval, the qualified biologist may capture and relocate the turtle unharmed to suitable habitat at least 200 feet outside the construction footprint. If a western pond turtle nest is unintentionally uncovered during project activities, work would stop in the vicinity of the nest and USACE would contact CDFW to determine the appropriate next steps.

Implementation Timing: Pre-construction, Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

BAT-1

Implement Measures to Protect Maternity Roosts of Special-Status Bats: CVFPB will implement the following measures, to avoid and minimize effects on special-status bats:

- Wherever feasible, USACE will conduct construction activities outside of the pupping season for bats (generally April 1 to August 31).
- CVFPB or its designated environmental personnel will specify which trees slated for removal contain suitable bat roosting habitat. Trees indicated for removal that are not identified as suitable bat habitat can be removed using normal methods.
- Live trees that are indicated to contain roosting habitat shall be removed in a two-phase process. The first day, under the supervision of the biological monitor, remove limbs and branches that do not contain cavities, cracks, crevices, or deep bark fissures that can provide roosting habitat. On the second day remove the remainder of tree by gently lowering the tree to the ground, under the supervision of the biological monitor. 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.
- 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.
- For trees containing suitable bat roosting habitat that will be trimmed, trimming 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).
- 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 qualified 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 the designated biological monitor in trees designated for removal. The surveys shall be conducted from dusk until dark.

- If any special-status species bat maternity roost is located, appropriate buffers must be established by clearly marking the buffer area. The buffer area must be a minimum of 100 feet outside the tree containing the maternity roost. No contract activities shall commence within the buffer areas until the end of pupping season (September 1st) or the biological monitor confirms that the maternity roost is no longer active.
- If construction activities must occur within the buffer, the biological monitor must monitor activities either continuously or periodically during the work, which will be determined by the biological monitor. The biological monitor would be empowered to stop activities that, in their opinion, would cause unanticipated adverse effects on specials status bats. If construction activities are stopped, the biological monitor would inform USACE, and CDFW would be consulted to determine appropriate measures to implement to avoid adverse effects.
- The biological monitor must attend a meeting with CVFPB's designated environmental personnel prior to tree removal to discuss the intent and implementation of measures to protect special status bat species. This can be part of the preparatory meeting held prior to tree removal.
- The CVFPB or its designated environmental personnel will provide the biological monitor with data sheets that must be used to document removal of trees identified as potential roosting habitat. At minimum, the biological monitor should document the following information: weather conditions, date and time of removal for each tree, method(s) of removal for each tree and reasoning, equipment used, and any other biological observations of note. The biological monitor should also take photos pre- and post-felling of each tree identified as potential roosting habitat.
- Biological monitors for tree removal outside pupping season must have familiarity with bat ecology and habitat requirements. Biological monitors for tree removal during pupping season must have prior experience surveying and monitoring for bats and must be approved by USACE. The biological monitors must also have a degree in biology, ecology, wildlife biology, herpetology, or related fields. They must have a minimum of 3 years field experience using USFWS and CDFW techniques and experience with the wildlife species likely to be encountered on the site.

Implementation Timing: Design, Pre-construction, Construction
Implementation Responsibility: CVFPB
Monitoring/Reporting Responsibility: CVFPB

PLANT-1

Implement Measures to Protect Special-status Plants: The Project Partners will implement the following measures, to avoid and minimize effects on special-status plants:

- Preconstruction surveys will be conducted by a qualified botanist in suitable habitat to determine the presence of any special status plants. Surveys will be conducted at an appropriate time of year during which the species are likely to be detected, which would likely be during the blooming period.
- If special status plant species are found during preconstruction surveys, the habitat will be marked or fenced as an avoidance area during construction. A buffer of 25 feet will be established. If a buffer of 25 feet is not possible, the next maximum possible distance will be fenced off as a buffer.
- If special status plant species cannot be avoided during construction, the Corps will coordinate with the resource agencies to determine additional appropriate mitigation measures.

Implementation Timing: Pre-construction, Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

Cultural and Tribal Cultural Resources

CR-1

Resolve Adverse Effects through Programmatic Agreement and Historic Properties Treatment Plan (HPTP): For Historic Properties which would be adversely affected by implementation of the project (pending concurrence of eligibility and finding of effect in the ARCF PA consultation process), USACE shall consult with the State Historic Preservation Office (SHPO) and interested Native American Tribes in accordance with the ARCF Programmatic Agreement (PA) and associated HPMP to develop a HPTP. The HPTP shall specify measures that will be implemented to resolve

the adverse effects to the Historic Properties and shall constitute mitigation for the effects to these resources. USACE shall implement the terms described in the HPTP.

Implementation Timing: Design, Pre-construction, Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

CR-2

Prepare an Archaeological Discovery Plan and an Archaeological Monitoring Plan: In accordance with the procedures described in Section 9.2 of the ARCF HPMP, a discovery plan shall be prepared and included in the construction contractor's specifications. The discovery plan shall specify what actions are required to be taken by the contractor in the event of an archaeological discovery and describe what actions USACE may take in the event of a discovery.

In accordance with the procedures described in Section 9.3.9 of the ARCF HPMP, an archaeological monitoring plan shall be developed for the project. This plan shall identify the locations of known Historic Properties as well as sensitive areas designated for archaeological monitoring and shall include methods and procedures for monitoring and the procedures to be followed in the event of a discovery of archaeological materials.

Implementation Timing: Pre-construction, Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

CR-3

Conduct Cultural Resources Awareness Training: In accordance with the procedures described in Section 9.1 of the ARCF HPMP, USACE shall require the contractor to provide a cultural resources and tribal cultural resources sensitivity and awareness training program for all personnel involved in project construction, including field consultants and construction workers. The training shall be developed in coordination with an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology (36 CFR Part 61), as well as culturally affiliated Native American tribes. USACE may invite Native American representatives from interested culturally affiliated Native American tribes to participate. The training shall be conducted before any project-related construction activities begin in the Area of Potential Effect (APE) and shall include relevant information regarding sensitive cultural

resources and Tribal Cultural Resources, including applicable regulations, protocols for avoidance, and consequences of violating Federal and State laws and regulations.

The training shall also describe appropriate avoidance and impact minimization measures for cultural resources and Tribal Cultural Resources that could be located in the APE and shall outline what to do and who to contact if any potential cultural resources or Tribal Cultural Resources are encountered. The training shall emphasize the requirement for confidentiality and culturally appropriate treatment of any discovery of significance to Native Americans and shall discuss appropriate behaviors and responsive actions, consistent with Native American tribal values.

Implementation Timing: Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

CR-4

Implement Procedures for Inadvertent Discovery of Cultural Material: If an inadvertent discovery of cultural materials (e.g., unusual amounts of shell, animal bone, any human remains, bottle glass, ceramics, and building remains); Tribal Cultural Resources; sacred sites; or landscapes is made at any time during project-related construction activities, USACE in consultation with CVFPB and other interested parties, shall develop appropriate protection and avoidance measures where feasible. These procedures shall be developed in accordance with the ARCF PA and HPMP, which specifies procedures for post-review discoveries. Additional measures, such as development of HPTPs prepared in accordance with the PA and HPMP, may be necessary if avoidance or protection is not possible.

Implementation Timing: Pre-construction, Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

CR-5

In the Event that Tribal Cultural Resources are Discovered Prior to or During Construction, Implement Procedures to Evaluate Tribal Cultural Resources and Implement Avoidance and Minimization Measures to Avoid Significant Adverse Effects: 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). As was done during Supplemental EIR preparation, culturally affiliated Tribes shall be further consulted concerning Tribal Cultural Resources that may be impacted, if these types of resources

are discovered prior to or during construction. Further 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, the following performance standards shall be met before proceeding with construction and associated activities that may result in damage to or destruction of Tribal Cultural Resources:

- Each identified Tribal Cultural Resource will be evaluated for CRHR eligibility through application of established eligibility criteria (Code of California Regulations [CCR] 15064.636), in consultation with interested Native American Tribes.
- If a Tribal Cultural Resource is determined to be eligible for listing on the CRHR, USACE, in consultation with CVFPB, will avoid damaging the Tribal Cultural Resource in accordance with California PRC Section 21084.3, if feasible. If USACE determines that the project may cause a substantial adverse change to a Tribal Cultural Resource, and measures are not otherwise identified in the consultation process, the following are examples of mitigation steps capable of avoiding or substantially lessening potential significant impacts to a Tribal Cultural Resource or alternatives that would avoid significant impacts to a Tribal Cultural Resource. These measures may be considered to avoid or minimize significant impacts and constitute the standard by which an impact specifically address inadvertent discovery of human remains may be reached:
- Avoid and preserve resources in place, including, but not limited to, planning construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- Treat the resource with culturally appropriate dignity, taking into account the Tribal cultural values and meaning of the resource, including, but not limited to, the following:
- Protect the cultural character and integrity of the resource.
- Protect the traditional use of the resource.
- Protect the confidentiality of the resource.
- Establish permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places.
- Protect the resource.

Implementation Timing: Construction
Implementation Responsibility: CVFPB
Monitoring/Reporting Responsibility: CVFPB

CR-6

Implement Procedures for Inadvertent Discovery of Human Remains: To minimize adverse effects from encountering human remains during construction, USACE shall implement the following measures.

In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, USACE shall consult with the CVFPB, and USACE shall immediately halt potentially damaging excavation in the area of the burial and notify the Sacramento County Coroner and a professional archaeologist to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (California Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (California Health and Safety Code Section 7050[c]). After the coroner's findings have been made, the archaeologist and the NAHC-designated Most Likely Descendant (MLD), in consultation with the landowner, shall determine the ultimate treatment and disposition of the remains.

Upon the discovery of Native American human remains, USACE, in coordination with CVFPB, shall require that all construction work must stop within 100 feet of the discovery until consultation with the MLD has taken place. The MLD shall have 48 hours to complete a site inspection and make recommendations to the landowner after being granted access to the site. A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment may be discussed. California PRC Section 5097.98(b)(2) suggests that the concerned parties may mutually agree to extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. The following is a list of site protection measures that USACE shall employ:

- Record the site with the NAHC or the appropriate Information Center.
- Record a document with the county in which the property is located.

If agreed to by the MLD and the landowner, USACE or a USACE authorized representative shall rebury the Native American human remains and associated grave

goods with appropriate dignity on the property in a location not subject to further subsurface disturbance, if the NAHC is unable to identify an MLD, or if the MLD fails to make a recommendation within 48 hours after being granted access to the site. USACE or a USACE authorized representative may also reinter the remains in a location not subject to further disturbance, if USACE rejects the recommendation of the MLD and mediation by the NAHC fails to provide measures acceptable to USACE. USACE shall implement mitigation for the protection of the burial remains. Construction work in the vicinity of the burials shall not resume until the mitigation is completed.

Implementation Timing: Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

Air Quality

AIR-1

Implement the Sacramento Metropolitan Air Quality Management District's (SMAQMD) Basic Construction Emission Control Practices: SMAQMD requires that all projects, regardless of their significance, implement the following measures to minimize the generation of fugitive Particulate Material (PM) dust. The Basic Construction Emission Control Practices shall include measures to control fugitive PM dust pursuant to SMAQMD Rule 403, as well as measures to reduce construction-related exhaust emissions. USACE shall require its contractors to comply with the basic construction emission control practices listed below for all construction-related activities occurring in SMAQMD jurisdiction.

- Water all exposed surfaces two times daily or more, as needed. Exposed surfaces include, but are not limited to levee crowns, soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover, or suitably wet soils and other materials on, haul trucks transporting soil, sand, or other loose material on the site. Cover any haul trucks that travel along freeways or major roadways.
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speed on unpaved roads to 15 miles per hour.
- Complete pavement of all roadways, driveways, sidewalks, and parking lots to be paved as soon as possible. In addition, lay building pads as soon as possible after grading unless seeding or soil binders are used.

- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes (required by CCR, Title 13, Sections 2449[d][3] and 2485). 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. Have the equipment checked by a certified mechanic and determined to be running in proper condition before it is operated.

Implementation Timing: Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPP

AIR-2

Implement the Sacramento Metropolitan Air Quality Management District's Enhanced Fugitive PM Dust Control Practices: SMAQMD recommends that construction projects that would exceed or contribute to the mass emissions threshold for particulate matter equal to or less than 10 micrometers in diameter (PM10) implement the Enhanced Fugitive PM Dust Control Practices, as applicable to the project. Because the construction activities would involve substantial material movement activities and would be located in proximity of residential receptors, USACE shall require its construction contractors to implement the Enhanced Fugitive PM Dust Control Practices listed below, when feasible, to help reduce potential fugitive PM dust emissions.

Soil Disturbance Areas

- Water exposed soil with adequate frequency for continued moist soil. However, do not overwater to the extent that sediment flows off the site.
- Suspend excavation, grading, and/or demolition activity when wind speeds exceed 20 miles per hour.
- Install wind breaks (e.g., plant trees, solid fencing) on windward side(s) of construction areas.
- Plant vegetative ground cover (fast germinating native grass seed) in disturbed areas as soon as possible. Water appropriately until vegetation is established.

Unpaved Roads (Entrained Road Dust)

- Install wheel washers for all exiting trucks or wash off all trucks and equipment leaving the site.

- Treat site accesses to a distance of 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 USACE regarding dust complaints. This person will respond and take corrective action within 48 hours. The phone number of SMAQMD also will be visible to ensure compliance.

Implementation Timing: Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

AIR-3

Require Lower Exhaust Emissions for Construction Equipment: USACE shall require its contractors to use a fleet-wide average of 90 percent Tier 4 emissions vehicles for off-road construction equipment, and on-road haul trucks must be equipped with 2010 or newer engines. Tier 0 engines will not be permitted. To demonstrate compliance with this requirement:

- The construction contractor shall submit to USACE and the Sacramento Metropolitan Air Quality Management District (SMAQMD) a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 8 or more hours during any portion of the construction project.
- The inventory shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment. The construction contractor shall provide the anticipated construction timeline including start date, and name and phone number of the project manager, and on-site foreman. This information shall be submitted at least 4 business days prior to the use of subject heavy-duty off-road equipment. The SMAQMD Construction Mitigation Tool can be used to submit this information. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs.
- The construction contractor shall provide a plan for approval by USACE and SMAQMD demonstrating that the heavy-duty off-road vehicles (50 horsepower or more) to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project-wide fleet average of 90 percent Tier 4 emissions vehicles. This plan shall be submitted in conjunction with the equipment inventory. Acceptable options for reducing emissions may include use

of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.

- SMAQMD's Construction Mitigation Tool can be used to identify an equipment fleet that achieves this reduction. The construction contractor shall ensure that emissions from all off-road diesel-powered equipment used in the project area do not exceed 40 percent opacity for more than 3 minutes in any 1 hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. Non-compliant equipment will be documented and a summary provided monthly to USACE and SMAQMD. A visual survey of all in-operation equipment shall be made at least weekly. A monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed, as well as the dates of each survey.
- Use the Construction Mitigation Tool to track PM_{10} emissions and mileage traveled by on-road trucks, reporting results to USACE and SMAQMD on a monthly basis.

Implementation Timing: Design, Pre-construction, Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

AIR-4

Use the Sacramento Metropolitan Air Quality Management District's (SMAQMD) Off-site Mitigation Fee to Reduce NO_x Emissions: The Project Partners shall implement the measures listed below to reduce NO_x construction-related emissions.

Pursuant to air district thresholds of significance, if the projected construction-related emissions exceed the NO_x threshold of significance, based on the equipment inventory and use, USACE shall contribute to SMAQMD's and/or Bay Area Air Quality Management District (BAAQMD) off-site mitigation fee program sufficiently to offset the amount by which the project's NO_x emissions exceed the threshold. If emissions for the ARCF 2016 Project in any given year would exceed the de minimis threshold of 25 tons per year, USACE would enter into an agreement with SMAQMD and/or BAAQMD to purchase offsets for all NO_x emissions in any year that projected emissions would exceed the threshold. The determination of the estimated mitigation fees shall be conducted in coordination with SMAQMD and/or BAAQMD before any ground disturbance occurs for any phase of project construction. (USACE anticipates purchasing offsets for NO_x emissions in 2023 and 2024 because the ARCF 2016

Project is forecast to exceed the de minimis threshold. Estimated fees for the Sacramento River Erosion Contract 2 project are $37,350 annually to BAAQMD for emissions in the San Francisco Bay Area Air Basin (SFBAAB).) All mitigation fees shall be paid prior to the start of construction activity to allow air districts to obtain emissions reductions for the proposed project. If there are changes to construction activities (e.g., equipment lists, increased equipment usage or schedules), USACE shall work with SMAQMD and BAAQMD to ensure emission calculations and fees are adjusted appropriately.

Implementation Timing: Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

AIR-5

Implement Marine Engine Standards: The Project Partners shall encourage the use of Environmental Protection Agency (EPA) adopted Tier 3 and Tier 4 standards for newly built marine engines in 2008. The Tier 3 standards reflect the application of technologies to reduce engine PM and oxide of nitrogen (NO_x) emission rates. Tier 4 standards reflect application of high-efficiency catalytic after-treatment technology enabled by the availability of ultra-low sulfur diesel.

The Project Partners will use Tier 2 and 3 marine engines standards where available to reduce marine exhaust emissions. Due to uncertainty as to the availability of Tier 4 marine engines within the required project timeline, this mitigation measure does not require the use of Tier 4 marine engines. However, should they become available during the appropriate construction periods, the use of these engines will be required in order to further lower project emissions.

Implementation Timing: Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

Climate Change

GHG-1

Implement GHG Reduction Measures: Measures that will be implemented to reduce the project's contribution from generation of Greenhouse Gas (GHG) are as follows:

- Encourage and provide carpools, shuttle vans, transit passes and/or secure bicycle parking for construction worker commutes.

- Recycle at least 75% of construction waste and demolition debris.
- Purchase at least 20% of the building materials and imported soil from sources within 100 miles of the project site.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than 3 minutes (5-minute limit is required by the state airborne toxic control measure [Title 13, sections 2449(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.
- Use equipment with nonhazardous technologies (repowered engines, electric drive trains).
- Perform on-site material hauling with trucks equipped with on-road engines (if determined to be less emissive than the off-road engines).
- Use an ARB approved low carbon fuel for construction equipment. (NOx emissions from the use of low carbon fuel must be reviewed and increases mitigated.)
- Purchase GHG offset for program-wide GHG emissions (direct emissions plus indirect emissions from on-road haul trucks plus commute vehicles) that meet the criteria of being real, quantifiable, permanent, verifiable, enforceable, and additional, consistent with the standards set forth in Health and Safety Code section 38562, subdivisions (d)(1) and (d)(2). Such credits shall be based on protocols approved by the California Air Resources Board (CARB), consistent with Section 95972 of Title 17 of the California Code of Regulations, and shall not allow the use of offset projects originating outside of California, except to the extent that the quality of the offsets, and their sufficiency under the standards set forth herein, can be verified by USACE or SMAQMD. Such credits must be purchased through one of the following: (i) a CARB-approved registry, such as the Climate Action Reserve, the American Carbon Registry, and the Verified Carbon Standard; (ii) any registry approved by CARB to act as a registry under the California Cap and Trade program; or (iii) through the California Air Pollution Control Officers Association's (CAPCOA's) GHG Rx and SMAQMD. Purchase of carbon offsets shall be sufficient to reduce the project's GHG emissions to below SMAQMD's significance thresholds applicable through a one-time purchase of credits, based on the emissions estimates in this SEIR or on an ongoing basis based on monthly emissions estimates that would be prepared in accordance with procedures established by Measure AQ-3.

Implementation Timing: Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

Noise

NOI-1

Implement Measures to Reduce Construction Noise and Vibration Effects: The Project Partners will require construction contractors to implement measures at each work site to avoid and minimize construction noise and vibration effects on sensitive receptors. Prior to the start of construction, the construction contractor will prepare a noise control plan to identify feasible measures to reduce construction noise, when necessary. The measures in the plan would apply to construction activities within 500 feet of a sensitive receptor, including, but not limited to, residences. These measures may include, but are not limited to, the following:

- Provide written notice to residents within 1,000 feet of the construction zone, advising them of the estimated construction schedule. This written notice would be provided within 1 week to 1 month of the start of construction at that location.
- Display notices with information including, but not limited to, contractor contact telephone number(s) and proposed construction dates and times in a conspicuous manner, such as on construction site fences.
- Schedule the loudest and most intrusive construction activities during daytime hours (7:00 a.m. to 7:00 p.m.) Monday through Friday, when feasible.
- Require that construction equipment be equipped with factory-installed muffling devices, and that all equipment be operated and maintained in good working order to minimize noise generation.
- Locate stationary noise-generating equipment as far as practicable from sensitive receptors.
- Limit unnecessary engine idling (i.e., more than 5 minutes) as required by State air quality regulations.
- Employ equipment that is specifically designed for low noise emission levels, when feasible.
- Employ equipment that is powered by electric or natural gas engines, as opposed to those powered by gasoline fuel or diesel, when feasible.
- If the construction zone is within 500 feet of a sensitive receptor, place temporary barriers between stationary noise equipment and noise sensitive receptors to block noise transmission, when feasible, or take advantage of existing barrier features, such as existing terrain or structures, when feasible.

- If the construction zone is within 500 feet of a sensitive receptor, prohibit use of backup alarms and provide an alternate warning system, such as a flagman or radar-based alarm that is compliant with State and Federal worker safety regulations.
- Locate construction staging areas as far as practicable from sensitive receptors.
- Design haul routes to avoid sensitive receptors, to the extent practical.
- To the extent feasible and practicable, the primary construction contractors would employ vibration-reducing construction practices such that vibration from construction complies with applicable noise-level rules and regulations that apply to the work, including the vibration standards established for construction vibration-sources by the applicable agencies (City of Sacramento and Sacramento County), depending on the jurisdictional location of the affected receptor(s), and the California Department of Transportation's (Caltrans) Transportation and Construction Vibration Guidance Manual, which identifies maximum vibration levels of 0.2 to 0.5-inch per second Peak Particle Velocity (PPV) for minimizing damage to structures. Project construction specifications would require the contractor to limit vibrations to less than 0.2-inch per second PPV, and less than 72 velocity decibels (VdB) within 50 feet at any building. If construction would occur within 50 feet of any occupied building, the contractor would prepare a vibration control plan prior to construction. The plan would include measures to limit vibration, including but not limited to the following:
    - Numerical thresholds above which the contractor would be required to document vibration sources and implement measures to reduce vibration, and above which work would be required to stop for consideration of alternative construction methods.
    - Avoid vibratory rollers and packers near sensitive areas to the maximum extent practicable.
    - Route heavily loaded trucks away from residential streets, if possible. If no alternatives are available, select streets with the fewest homes.
    - A voluntary pre- and post-construction survey would be conducted to assess the existing condition of structures prior to construction and potential architectural/structural damage induced by levee construction vibration at each structure within 100 feet of construction activities, including staging areas. The survey would include visual inspection of the structures that could be affected and documentation of structures by means of photographs and video. This documentation would be reviewed with the individual owners prior to any construction activities. Post-construction surveys of structures would be performed to identify (and repair, if necessary) damage, if any, from construction activities. Any

construction-related damage would be documented with photographs and video. This documentation would be reviewed with the individual property owners.

- Place vibration monitoring equipment in lines approximately parallel to the levee alignment at intervals not to exceed 200 feet along the construction limits, including active staging areas. Vibration monitors will be operational at all times during the performance of construction activities. The contractor will monitor and record vibrations continuously.

Implementation Timing: Pre-construction, Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

Recreation

REC-1

Implement Pedestrian Detours, Provide Construction Period Information on Facility Closures: The Project Partners will implement the following measures to reduce temporary, short-term construction effects on recreational facilities in the Project Area:

- Provide marked detours for pedestrian routes. Detours should be developed in consultation with the City of Sacramento Bicycle and Pedestrian Coordinator at least 10 days before the start of construction activities, as applicable. Post signs that clearly indicate closure routes at major entry points for trails and will provide a contact number to call for questions or concerns.
- Post signs at major entry points for trails, and boat launch ramps at the Miller Regional Park, Garcia Bend Park and the Sacramento Marina clearly indicating closures of trails and estimated duration of closures. Information signs will notify the public of alternate parks and recreation sites, including boat launch ramps, and will provide a contact number to call for questions or concerns.
- Upon completion of levee improvements, coordinate with the City of Sacramento to restore access and repair any construction-related damage to recreational facilities to pre- project conditions.

Implementation Timing: Pre-construction, Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

REC-2

Implement Measures to Notify Boaters: The Project Partners will implement the following measures to reduce temporary, short-term construction effects on recreational facilities in the Project Area:

- Post signs at the Sacramento Marina and Garcia Bend Park to clearly indicate the estimated duration of in-water work windows and construction duration.
- Place buoys at the upstream and downstream ends of the construction site to warn boaters of the in-water work.
- Notify the Coast Guard, in accordance with the Rivers and Harbors Act, of in-water work from barges moored in the river. Notification will include in-water work windows and construction duration.

Implementation Timing: Pre-construction, Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

Visual Resources

VIS-1

Reduce Light Pollution: The Project Partners will require construction contractors to ensure that all temporary lighting related to security of the staging areas to be shielded or directed to avoid or minimize any direct illumination onto light-sensitive receptors located outside of the Project Area.

Implementation Timing: Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

Hazardous Wastes and Materials

HAZ-1

Conduct Phase II Investigations as Needed: The Project Partners would require that Project Areas be tested for contaminants prior to construction. Any hazardous materials found would be disposed of in accordance with all Federal, State, and local regulations at an approved disposal site. Where construction activities would occur in close

proximity to sites identified as Recognized Environmental Conditions in the Phase I ESA (HDR 2019), a Phase II site investigation should also be conducted.

Implementation Timing: Design, Pre-construction, Construction
Implementation Responsibility: USACE
Monitoring/Reporting Responsibility: CVFPB

EXHIBIT B – AMERICAN RIVER WATERSHED COMMON FEATURES, WATER RESOURCES DEVELOPMENT ACT OF 2016 PROJECT, SACRAMENTO RIVER EROSION CONTRACT 2

CALIFORNIA STATE LANDS COMMISSION
STATEMENT OF FINDINGS AND
STATEMENT OF OVERRIDING CONSIDERATIONS

1.0 INTRODUCTION

The California State Lands Commission (Commission or CSLC), acting as a responsible agency under the California Environmental Quality Act (CEQA), makes these findings and this Statement of Overriding Considerations to comply with CEQA as part of its discretionary approval to authorize issuance of a General Lease – Public Agency Use, to the Sacramento Area Flood Control Agency (SAFCA), for use of sovereign land associated with the proposed American River Watershed Common Features, Water Resources Development Act of 2016 Project, Sacramento River Erosion Contract 2 (Project). (See generally Pub. Resources Code, § 21069; State CEQA Guidelines, § 15381.)[1] The Commission has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The Commission also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions. (Pub. Resources Code, §§ 6301, 6306, 6009, subd. (c)) All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the common law Public Trust.

The Commission is a responsible agency under CEQA for the Project because the Commission must approve a General Lease – Public Agency Use for the Project to go forward and because the Central Valley Flood Protection Board (CVFPB), as the CEQA lead agency, has the principal responsibility for approving the Project and has completed its environmental review under CEQA. CVFPB analyzed environmental impacts associated with the Project in the American River Watershed Common Features General Reevaluation Report (ARCF GRR) Final Environmental Impact Statement/Report (EIS/EIR) (State Clearinghouse [SCH] No. 2005072046, herein referred to as the ARCF GRR EIR), and, on June 9, 2016, certified the ARCF GRR Final EIR and adopted a Mitigation, Monitoring,

[1] CEQA is codified in Public Resources Code section 21000 et seq. The State CEQA Guidelines are found in California Code of Regulations, title 14, section 15000 et seq.

and Reporting Program (MMRP), Findings, and a Statement of Overriding Considerations.

CVFPB then prepared a Supplemental EIR/Environmental Assessment (Supplemental EIR) (SCH No. 2022040317) and certified the Final Supplemental EIR on October 28, 2022, and adopted an MMRP, Findings, and a Statement of Overriding Considerations.

The SAFCA proposes to install levee improvements to reduce risks of levee failure related to seepage, under-seepage, and levee stability. Types of levee improvements would include rock bank protection, riparian benches, and placement of instream woody material.

The CVFPB determined that the Project could have significant environmental effects on the following environmental resources:

- Geological Resources
- Water Quality
- Vegetation and Wildlife
- Fisheries
- Special Status Species
- Cultural and Tribal Cultural Resources
- Air Quality
- Climate Change
- Noise
- Visual Resources
- Hazardous Wastes and Materials
- Recreation

Of the 12 resources areas noted above, Project components within the Commission's jurisdiction (i.e., levee improvements below the ordinary high-water mark [OHWM] of the Sacramento River) could have significant environmental effects on 11 of the resource areas, as follows:

- Geological Resources
- Water Quality
- Vegetation and Wildlife
- Fisheries
- Special Status Species
- Cultural and Tribal Cultural Resources
- Air Quality
- Climate Change
- Noise
- Visual Resources
- Recreation

In certifying the ARCF GRR EIR and Supplemental EIR and approving the Project, CVFPB imposed various mitigation measures for Project-related significant effects on the environment as conditions of Project approval and concluded that Project-related impacts would be substantially lessened with implementation of these mitigation measures for most resource areas. However, even with the integration of all feasible mitigation, CVFPB concluded in the ARCF GRR EIR and Supplemental EIR that some of the identified impacts would remain significant. As a result, CVFPB adopted a Statement of Overriding Considerations to support its approval of the Project despite the significant and unavoidable impacts. The CVFPB determined that, after mitigation, the Project may still have significant impacts on Vegetation and Wildlife, Visual Resources, and Recreation. Because these significant impacts may occur from activities occurring on or otherwise affecting lands under the jurisdiction of the Commission, the Commission also adopts the Statement of Overriding Considerations set forth in this Exhibit B as part of its approval.

As a responsible agency, the Commission complies with CEQA by considering the ARCF GRR EIR and Supplemental EIR and reaching its own conclusions on whether, how, and with what conditions to approve a project. In doing so, the Commission may require changes in a project to lessen or avoid the effects, either direct or indirect, of that part of the project which the Commission will be called on to carry out or approve. In order to ensure the identified mitigation measures and/or Project revisions are implemented, the Commission adopts the Mitigation Monitoring Program (MMP) as set forth in Exhibit A as part of its Project approval.

2.0 ADMINISTRATIVE RECORD OF PROCEEDINGS AND CUSTODIAN OF THE RECORD

These Findings are supported by substantial evidence contained in the ARCF GRR EIR and Supplemental EIR and other relevant information provided to the Commission or existing in its files, all of which is contained in the administrative record. The administrative record is located at the California State Lands Commission, 100 Howe Avenue, Suite 100-South, Sacramento, CA 95825. The custodian for the administrative record is the California State Lands Commission Division of Environmental Science, Planning, and Management.

3.0 FINDINGS

The Commission's role as a responsible agency affects the scope of, but not the obligation to adopt, findings required by CEQA. Findings are required under CEQA by each "public agency" that approves a project for which an EIR has been certified that identifies one or more significant impacts on the environment. (Pub. Resources Code, § 21081, subd. (a); State CEQA Guidelines,

§ 15091, subd. (a).) Because the ARCF GRR EIR and Supplemental EIR certified by the CVFPB for the Project identify potentially significant impacts that fall within the scope of the Commission's approval, the Commission makes the Findings set forth below as a responsible agency under CEQA. (State CEQA Guidelines, § 15096, subd. (h); *Riverwatch v. Olivenhain Mun. Water Dist.* (2009) 170 Cal.App.4th 1186, 1202, 1207.)

While the Commission must consider the environmental impacts of the Project as set forth in the ARCF GRR EIR and Supplemental EIR, the Commission's obligation to mitigate or avoid the direct or indirect environmental impacts of the Project is limited to those parts which it decides to carry out, finance, or approve. (Pub. Resources Code, § 21002.1, subd. (d); State CEQA Guidelines, §§ 15041, subd. (b), 15096, subds. (f)-(g).) Accordingly, because the Commission's exercise of discretion involves only issuing a General Lease – Public Agency Use for this Project, the Commission is responsible for considering only the environmental impacts related to lands or resources subject to the Commission's jurisdiction. With respect to all other impacts associated with implementation of the Project, the Commission is bound by the legal presumption that the ARCF GRR EIR and Supplemental EIR fully comply with CEQA.

The Commission has reviewed and considered the information contained in the ARCF GRR EIR and Supplemental EIR. All significant adverse impacts of the Project identified in the documents relating to the Commission's approval of a General Lease – Public Agency Use, which would allow site preparation and the installation of rock protection and riparian benches, are included herein and organized according to the resource affected.

These Findings, which reflect the independent judgment of the Commission, are intended to comply with CEQA's mandate that no public agency shall approve or carry out a project for which an EIR has been certified that identifies one or more significant environmental effects unless the agency makes written findings for each of those significant effects. Possible findings on each significant effect are:

(1) Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant environmental effect as identified in the EIR and Supplemental EIR.

(2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the Commission. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

(3) Specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers,

make infeasible the mitigation measures or project alternatives identified in the EIR and Supplemental EIR.[2]

A discussion of supporting facts follows each Finding.

- Whenever Finding (1) occurs, the mitigation measures that lessen the significant environmental impact are identified in the facts supporting the Finding.
- Whenever Finding (2) occurs, the agencies with jurisdiction are specified. These agencies, within their respective spheres of influence, have the responsibility to adopt, implement, and enforce the mitigation discussed.
- Wherever Finding (3) is made, the Commission has determined that, even after implementation of all feasible mitigation measures and consideration of feasible alternatives, the identified impact will exceed the significance criteria set forth in the EIR. Furthermore, to the extent that potentially feasible measures have been alleged or proposed, the Findings explain why certain economic, legal, social, technological or other considerations render such possibilities infeasible. The significant and unavoidable impacts requiring Finding (3) are identified in the ARCF GRR EIR and Supplemental EIR, discussed in the Responses to Comments, and explained below. Having done everything it can to avoid and substantially lessen these effects consistent with its legal authority and CEQA, the Commission finds in these instances that overriding economic, legal, social, and other benefits of the approved Project outweigh the resulting significant and unavoidable impacts. The Statement of Overriding Considerations adopted as part of this exhibit applies to all such unavoidable impacts as required by CEQA. (Pub. Resources Code, § 21081, subd. (b); State CEQA Guidelines, §§ 15092 and 15093.)

The mitigation measures are briefly described in these Findings; more detail on the mitigation measures is included in the ARCF GRR EIR and Supplemental EIR. For the full text of each mitigation measure (MM), please refer to Exhibit A, Attachment A-1.

A. SUMMARY OF FINDINGS

The ARCF GRR EIR and Supplemental EIR identified impacts to the following resource areas as Less Than Significant:

- Hydrology and Hydraulics
- Public Utilities and Service Systems

[2] See Public Resources Code section 21081, subdivision (a), and State CEQA Guidelines section 15091, subdivision (a).

- Socioeconomic, Population, and Environmental Justice

For the remaining potentially significant effects, the Findings are organized by significant impacts within the EIR resource areas as presented below.

B. POTENTIALLY SIGNIFICANT IMPACTS

The impacts within CSLC jurisdiction, identified in Table B-1, were determined in the ARCF GRR EIR and Supplemental EIR to be potentially significant absent mitigation. After application of mitigation, however, several impacts were determined to be less than significant (LTSM).

However, even with the integration of all feasible mitigation, CVFPB concluded in the ARCF GRR EIR and Supplemental EIR that other identified potentially significant impacts will remain significant. Table B-1 also identifies those impacts that CVFPB determined would be, after mitigation, significant and unavoidable (SU). As a result, the Commission adopts the Statement of Overriding Considerations set forth as part of this Exhibit to support its approval of the Project despite the significant and unavoidable impacts.

Table B-1 – Significant Impacts by Resource Area

Environmental Resource Area	Impact Nos. (LTSM)	Impact Nos. (SU)
Geological Resources	GEO-1	
Water Quality	WATERS-1	
Vegetation and Wildlife	VEG-1	VEG-2
Fisheries	FISH-1	
Special-Status Species	SSS-1, SSS-2, SSS-3	
Cultural and Tribal Cultural Resources	CR/TCR-1, CR/TCR-2, CR/TCR-3	
Air Quality	AIR-1	
Climate Change	GHG-1, GHG-2	
Noise	NOI-1	
Visual Resources	VIS-1	VIS-2
Recreation		REC-2

C. IMPACTS REDUCED TO LESS THAN SIGNIFICANT LEVELS WITH MITIGATION

The impacts identified below were determined in the ARCF GRR EIR and Supplemental EIR to be potentially significant absent mitigation; however, the impacts were determined to be less than significant with mitigation. The impacts have been numbered to provide additional clarity.

1. GEOLOGICAL RESOURCES (GEO)

CEQA FINDING NO. 1

Impact: **GEO-1. Potential Temporary, Short-term Construction-related Erosion.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the ARCF GRR EIR and Supplemental EIR.

FACTS SUPPORTING THE FINDING(S)

Project construction activities would result in temporary and short-term disturbance of soil, and disturbed areas could be impacted by storm events. The ARCF GRR EIR and Supplemental EIR identified measures that will require coverage under the State Water Resources Control Board's National Pollutant Discharge Elimination System stormwater permit, including preparation and submittal of a project-specific stormwater pollution prevention plan.

Implementation of MM GEO-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM GEO-1: Acquire Appropriate Regulatory Permits and Prepare and Implement a Storm Water Pollution Prevention Plan, Spill Prevention Control and Countermeasures Plan, and Associated Best Management Practices

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

2. WATER QUALITY (WATERS)

CEQA FINDING NO. 2

Impact: **WATERS-1. Construction Impacts to Water Quality.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the ARCF GRR EIR and Supplemental EIR.

FACTS SUPPORTING THE FINDING(S)

Placement of rock revetment along the riverbank below the OHWM of the Sacramento River will temporarily generate increased turbidity in the vicinity of the construction area. The ARCF GRR EIR and Supplemental EIR identified measures that will require compensation for the fill of State and federally protected waters as well as sedimentation reducing measures.

Implementation of MMs WATERS-1 and GEO-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM WATERS-1: Compensate for Fill of State and Federally Protected Waters

MM GEO-1: Acquire Appropriate Regulatory Permits and Prepare and Implement a Storm Water Pollution Prevention Plan, Spill Prevention Control and Countermeasures Plan, and Associated Best Management Practices

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

3. VEGETATION AND WILDLIFE (VEG)

CEQA FINDING NO. 3

Impact: **VEG-1. Long-term Adverse Effects on Riparian Habitat and Waters of the United States.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the ARCF GRR EIR and Supplemental EIR.

FACTS SUPPORTING THE FINDING(S)

Construction of the Project refinements including placement of bank protection measures, the riparian planting bench, and instream wood materials (IWM), will impact approximately 3.5 acres of riparian habitat including shaded riverine

aquatic habitat. The ARCF GRR EIR and Supplemental EIR identified measures that provide for tree retention, on-site habitat creation in accordance with the ARCF GRR Habitat Mitigation, Monitoring, and Adaptive Management Plan, and off-site compensatory habitat protection.

Implementation of MMs VEG-1 and VEG-2 has been incorporated into the Project to reduce this impact to a less than significant level.

MM VEG-1: Retain, Protect, and Plant Trees On-Site

MM VEG-2: Compensate for Riparian Habitat Removal

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

4. FISHERIES (FISH)

CEQA FINDING NO. 4

Impact: **FISH-1. Adverse Effects on Fisheries.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the ARCF GRR EIR and Supplemental EIR.

FACTS SUPPORTING THE FINDING(S)

Project construction activities will affect approximately 13.5 acres of delta smelt spawning habitat. Additionally, Project refinements will disrupt native fish during rock placement and erosion protection activities by temporarily increasing local noise and turbidity. The ARCF GRR EIR and Supplemental EIR identified measures to avoid impacts to listed fish species, establish erosion control measures, and implement a riparian corridor improvement plan that adheres to the ARCF GRR Habitat Mitigation, Monitoring, and Adaptive Management Plan.

Implementation of MMs FISH-1, GEO-1, and SRA-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM FISH-1: Implement Measures to Avoid and Minimize Effects on Listed Fish Species

MM GEO-1: Acquire Appropriate Regulatory Permits and Prepare and Implement a Storm Water Pollution Prevention Plan, Spill Prevention Control and Countermeasures Plan, and Associated Best Management Practices

MM SRA-1: Implement Measures to Avoid, Minimize, and Compensate for Effects on Shaded Riverine Aquatic Habitat

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

5. SPECIAL-STATUS SPECIES (SSS)

CEQA FINDING NO. 5

Impact: **SSS-1. Construction Effects on Special-status Species: Other Special-status Bird Species (Western Yellow-Billed Cuckoo and Purple Martin).**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the ARCF GRR EIR and Supplemental EIR.

FACTS SUPPORTING THE FINDING(S)

Tree removal to accommodate Project construction activities will reduce the amount of habitat available to bird species. The ARCF GRR EIR and Supplemental EIR identified measures that provide for tree retention, on-site habitat creation in accordance with the ARCF GRR Habitat Mitigation, Monitoring, and Adaptive Management Plan, and off-site compensatory habitat protection.

Implementation of MMs BIRD-1, VEG-1, VEG-2, and SRA-1 has been incorporated into the Project to reduce this impact to a less than significant level.

BIRD-1: Implement Measures to Protect Nesting Special-Status and Migratory Birds

MM VEG-1: Retain, Protect, and Plant Trees On-Site

MM VEG-2: Compensate for Riparian Habitat Removal

MM SRA-1: Implement Measures to Avoid, Minimize, and Compensate for Effects on Shaded Riverine Aquatic Habitat

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. 6

Impact: **SSS-2. Construction Effects on Western Pond Turtle.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the ARCF GRR EIR and Supplemental EIR.

FACTS SUPPORTING THE FINDING(S)

Construction equipment could strike western pond turtles that are nesting, basking, or traversing upland habitat, resulting in mortality of these animals. Western pond turtles may also be crushed or entombed when construction equipment causes burrows to collapse. The ARCF GRR EIR and Supplemental EIR identified measures to conduct surveys, relocate individuals, and issue stop-work orders.

Implementation of MM TURTLE-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM TURTLE-1: Implement Measures to Protect Western Pond Turtle

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. 7

Impact: **SSS-3. Construction Effects on Special-Status Plants.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the ARCF GRR EIR and Supplemental EIR.

FACTS SUPPORTING THE FINDING(S)

No special status plants were located within the Project site according to surveys conducted in 2016 and 2022. However, due to a potential for changed conditions between 2022 and the start of vegetation removal or construction, impacts to special status plants would be potentially significant. The ARCF GRR EIR and Supplemental EIR identified measures requiring pre-construction surveys and establishment of avoidance areas for any individuals found.

Implementation of MM PLANT-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM PLANT-1: Implement Measures to Protect Special-Status Plants

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

6. CULTURAL AND TRIBAL CULTURAL RESOURCES (CR/TCR)

CEQA FINDING NO. 8

Impact: **CR/TCR-1. Damage to or Destruction of Known Precontact-Period Archaeological Sites or Tribal Cultural Resources**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the ARCF GRR EIR and Supplemental EIR.

FACTS SUPPORTING THE FINDING(S)

Earth-moving activities could result in damage to or destruction of known pre-contact-period archaeological sites and Native American-identified Tribal cultural resources (TCRs). The ARCF GRR EIR and Supplemental EIR identified measures to determine appropriate mitigation prior to construction, implement monitoring plans, and promote worker awareness.

Implementation of MMs CR-1 through CR-5 has been incorporated into the Project to reduce this impact to a less than significant level.

MM CR-1: Resolve Adverse Effects through Programmatic Agreement and Historic Properties Treatment Plan (HPTP)

MM CR-2: Prepare an Archaeological Discovery Plan and an Archaeological Monitoring Plan

MM CR-3: Conduct Cultural Resources Awareness Training

MM CR-4: Implement Procedures for Inadvertent Discovery of Cultural Material

MM CR-5: In the Event that Tribal Cultural Resources are Discovered Prior to or During Construction, Implement Procedures to Evaluate Tribal Cultural Resources and Implement Avoidance and Minimization Measures to Avoid Significant Adverse Effects

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. 9

Impact: **CR/TCR-2. Damage to or Destruction of Previously Undiscovered Archaeological Sites or Tribal Cultural Resources**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the ARCF GRR EIR and Supplemental EIR.

FACTS SUPPORTING THE FINDING(S)

Earthmoving activities could result in damage to or destruction of unknown or subsurface historic-period sites, prehistoric-period archeological sites, or Native American-identified TCRs. The ARCF GRR EIR and Supplemental EIR identified measures to confirm resource eligibility and determine appropriate mitigation prior to construction, implement monitoring plans, promote worker awareness, and address inadvertent discovery and subsequent treatment.

Implementation of MMs CR-2 through CR-5 has been incorporated into the Project to reduce this impact to a less than significant level.

MM CR-2: Prepare an Archaeological Discovery Plan and an Archaeological Monitoring Plan

MM CR-3: Conduct Cultural Resources Awareness Training

MM CR-4: Implement Procedures for Inadvertent Discovery of Cultural Material

MM CR-5: In the Event that Tribal Cultural Resources are Discovered Prior to or During Construction, Implement Procedures to Evaluate Tribal Cultural Resources and Implement Avoidance and Minimization Measures to Avoid Significant Adverse Effects

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. 10

Impact: **CR/TCR-3. Damage to or Destruction of Human Remains during Construction.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the ARCF GRR EIR and Supplemental EIR.

FACTS SUPPORTING THE FINDING(S)

The Project vicinity is known to contain significant prehistoric archaeological sites, including sites with human burials. Native American human remains could be encountered during earth-moving activities associated with the Project. The ARCF GRR EIR and Supplemental EIR identified measures to implement protection, notification, and treatment procedures.

Implementation of MM CR-6 has been incorporated into the Project to reduce this impact to a less than significant level.

MM CR-6: Implement Procedures for Inadvertent Discovery of Human Remains.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

7. AIR QUALITY

CEQA FINDING NO. 11

Impact: **AIR-1. Construction Emissions.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the ARCF GRR EIR and Supplemental EIR.

FACTS SUPPORTING THE FINDING(S)

The Project's construction related emissions would exceed emission thresholds for oxides of nitrogen (NO_x). The ARCF GRR EIR and Supplemental EIR identified measures to implement emission control practices, fugitive dust control practices, and enhanced site exhaust controls as well as encourage the use of U.S. Environmental Protection Agency adopted Tier 3 and Tier 4 standards for newly built marine engines.

Implementation of MMs AIR-1 through AIR-5 has been incorporated into the Project to reduce this impact to a less than significant level.

MM AIR-1: Implement the Sacramento Metropolitan Air Quality Management District's Basic Construction Emission Control Practices

MM AIR-2: Implement the Sacramento Metropolitan Air Quality Management District's Enhanced Fugitive PM Dust Control Practices

MM AIR-3: Require Lower Exhaust Emissions for Construction Equipment

MM AIR-4: Use the Sacramento Metropolitan Air Quality Management District's Off-site Mitigation Fee to Reduce NO_x Emissions

MM AIR-5: Implement Marine Engine Standards

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

8. CLIMATE CHANGE

CEQA FINDING NO. 12

Impact: **GHG-1. Temporary, Short-term Generation of Greenhouse Gas Emissions.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the ARCF GRR EIR and Supplemental EIR.

FACTS SUPPORTING THE FINDING(S)

Emissions from construction equipment and worker vehicles would include carbon dioxide (CO_2) and other greenhouse gases (GHGs) that contribute to climate change. The ARCF GRR EIR and Supplemental EIR identified measures to require efficient equipment operation, idling equipment minimization, enhanced emissions reductions, and the purchase of GHG offsets to compensate for emissions in exceedance of the significance thresholds (at the time of construction).

Implementation of MM GHG-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM GHG-1: Implement GHG Reduction Measures

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. 13

Impact: **GHG-2: Conflict with an Applicable GHG Emissions Reduction Plan and Effects of Climate Change.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the ARCF GRR EIR and Supplemental EIR.

FACTS SUPPORTING THE FINDING(S)

The Project is an adaptive measure against the potential effects of climate change. Project improvements would help prevent flooding, thereby avoiding future impacts requiring reconstruction and repair and effects on local residents. However, the Project would result in short-term GHG emissions during construction. The ARCF GRR EIR and Supplemental EIR identified measures to require efficient equipment operation, idling equipment minimization, enhanced emissions reductions, and the purchase of GHG offsets to compensate for emissions in exceedance of the significance thresholds (at the time of construction).

Implementation of MM GHG-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM GHG-1: Implement GHG Reduction Measures

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

9. NOISE (NOI)

CEQA FINDING NO. 14

Impact: **NOI-1. Potential Increase in Ambient Noise Levels or Exposure of Sensitive Receptors to Excessive Noise or Vibration.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the ARCF GRR EIR and Supplemental EIR.

FACTS SUPPORTING THE FINDING(S)

The Project would generate construction noise and vibration from equipment as well as the transport of construction workers, construction materials, and

equipment to and from each work location. The ARCF GRR EIR and Supplemental EIR identified measures that will require construction contractors to prepare a noise plan to avoid and minimize construction noise and vibration effects for construction activities within 500 feet of a sensitive receptor.

Implementation of MM NOI-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM NOI-1: Implement Measures to Reduce Construction Noise and Vibration Effects

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

10. VISUAL RESOURCES (VIS)

CEQA FINDING NO. 15

Impact: **VIS-1. Long-Term Changes in Scenic Vistas and Existing Visual Character.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the ARCF GRR EIR and Supplemental EIR.

FACTS SUPPORTING THE FINDING(S)

During construction of the Project, staging areas would have new sources of nighttime light that would potentially illuminate adjacent residences. This would result in a short-term adverse impact. In addition, loss of vegetation due to removal and construction of levee improvements would adversely impact the existing visual character or quality of views from various locations along the River. The ARCF GRR EIR and Supplemental EIR identified measures to require shielded or directed nighttime lighting, tree retention and protection, on-site habitat creation, and compensation for the remaining unmitigated, short-term habitat loss.

Implementation of MMs VIS-1, VEG-1, VEG-2, and SRA-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM VIS-1: Reduce Light Pollution

MM VEG-1: Retain, Protect, and Plant Trees On-Site

MM VEG-2: Compensate for Riparian Habitat Removal

MM SRA-1: Implement Measures to Avoid, Minimize, and Compensate for Effects on Shaded Riverine Aquatic Habitat

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

D. SIGNIFICANT AND UNAVOIDABLE IMPACTS

The following impacts were determined in the ARCF GRR EIR and Supplemental EIR to be significant and unavoidable. The Statement of Overriding Considerations adopted as part of this exhibit applies to all such unavoidable impacts as required by CEQA. (Pub. Resources Code, § 21081, subd. (b); State CEQA Guidelines, §§ 15092 and 15093.)

1. VEGETATION AND WILDLIFE (VEG)

CEQA FINDING NO. 16

Impact: **VEG-2. Short-term Adverse Effects on Riparian Habitat and Waters of the United States**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR and Supplemental EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the ARCF GRR EIR and Supplemental EIR.

FACTS SUPPORTING THE FINDING(S)

Construction activities will impact approximately 3.5 acres of riparian habitat. The ARCF GRR EIR and Supplemental EIR identified measures to reduce the impact footprint and compensate for effects to riparian and shaded aquatic habitats. However, the potentially significant short-term impacts to vegetation cannot be eliminated.

Implementation of MMs VEG-1 and VEG-2 has been incorporated into the Project and would reduce the severity of this impact, although not necessarily to a less than significant level.

MM VEG-1: Retain, Protect, and Plant Trees On-Site

MM VEG-2: Compensate for Riparian Habitat Removal

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

2. RECREATION (REC)

CEQA FINDING NO. 17

Impact: **REC-1. Temporary Changes to Recreational Opportunities during Project Construction Activities**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR and Supplemental EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the ARCF GRR EIR and Supplemental EIR.

FACTS SUPPORTING THE FINDING(S)

Project activities would include use of barges on the river that would cause a temporary impact to recreation from boating traffic. The ARCF GRR EIR and Supplemental EIR identified measures to notify boaters and reduce conflicts. However, recreation would still be restricted within the Project area, and therefore the potentially significant impact cannot be eliminated.

Implementation of MM REC-2 has been incorporated into the Project and would reduce the severity of this impact, although not necessarily to a less than significant level.

MM REC-2: Implement Measures to Notify Boaters

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

3. VISUAL RESOURCES (VIS)

CEQA FINDING NO. 18

Impact: **VIS-2. Short-Term Changes in Scenic Vistas and Existing Visual Character.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR and Supplemental EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the ARCF GRR EIR and Supplemental EIR.

FACTS SUPPORTING THE FINDING(S)

The presence of crews and equipment and the loss of vegetation due to construction activities would degrade the project area's existing visual quality to a potentially significant level that cannot be eliminated. The ARCF GRR EIR and Supplemental EIR identified measures to require shielded or directed nighttime lighting, tree retention and protection, on-site habitat creation, and compensation for remaining unmitigated, short-term habitat loss. However, the potentially significant short-term impacts to visual resources from construction crews and equipment cannot be eliminated.

Implementation of MMs VIS-1, VEG-1, VEG-2, and SRA-1 has been incorporated into the Project and would reduce the severity of this impact, although not necessarily to a less than significant level.

MM VIS-1: Reduce Light Pollution

MM VEG-1: Retain, Protect, and Plant Trees On-Site

MM VEG-2: Compensate for Riparian Habitat Removal

MM SRA-1: Implement Measures to Avoid, Minimize, and Compensate for Effects on Shaded Riverine Aquatic Habitat

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

E. FINDINGS ON ALTERNATIVES

The Commission, as a responsible agency and pursuant to State CEQA Guidelines section 15096, subdivision (g)(2), finds there are no feasible Project alternatives within its powers that would substantially lessen or avoid any outstanding significant effects that the Project, as proposed, would have on the environment.

4.0 STATEMENT OF OVERRIDING CONSIDERATIONS

A. INTRODUCTION

This section addresses the Commission's obligations under Public Resources Code section 21081, subdivisions (a)(3) and (b). (See also State CEQA Guidelines, §§ 15091, subd. (a)(3), 15093.) Under these provisions, CEQA requires the Commission to balance, as applicable, the economic, legal, social, technological, or other benefits, including regionwide or statewide environmental benefits, of the Lease approval related to the American River Watershed Common Features, Water Resources Development Act of 2016 Project, Sacramento River Erosion Contract 2 Project against the backdrop of the Project's unavoidable significant environmental impacts. For purposes of CEQA, if the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable significant environmental effects, those effects may be considered acceptable, and the decision-making agency may approve the underlying project. (State CEQA Guidelines § 15092, subd. (b)(2)(B).) CEQA, in this respect, does not prohibit the Commission from approving the Lease even if the Project activities as authorized under the Lease may cause significant and unavoidable environmental effects.

This Statement of Overriding Considerations presents (1) the specific significant effects on the environment attributable to the approved Project that cannot feasibly be mitigated to below a level of significance, (2) benefits derived from the approved Project, and (3) specific reasons for approving the Project.

Although CVFPB and the Commission have imposed mitigation measures to reduce impacts, impacts remain that are considered significant after application of all feasible mitigation. Significant impacts of the approved Project fall under three resource areas: Vegetation and Wildlife, Recreation, and Visual Resources (see Table B-2). These impacts are specifically identified and discussed in more detail in the Commission's CEQA Findings and in CVFPB's ARCF GRR EIR and Supplemental EIR. While the Commission has required all feasible mitigation measures, these impacts remain significant for purposes of adopting this Statement of Overriding Considerations.

Table B-2 – Significant and Unavoidable Impacts Identified for the Approved Project

Impact	Impact Description
Vegetation and Wildlife	
VEG-2. Short-term Adverse Effects on Riparian Habitat and Waters of the United States	Construction activities would remove riparian vegetation and native and non-native trees within the Project area and result in potentially significant adverse impacts to vegetation and wildlife. The ARCF GRR EIR and Supplemental EIR impose MMs VEG-1 and VEG-2, but disclose that those measures would be unlikely to mitigate the Project's impacts to a less than significant level. There are no other feasible mitigation measures that are available to offset these significant impacts. Therefore, the impacts would remain significant and unavoidable.
Recreation	
REC-1. Temporary Changes to Recreational Opportunities during Project Construction Activities	Project construction activities would use barges on the Sacramento River that would impact boating traffic and recreation. The ARCF GRR EIR and Supplemental EIR impose MM REC-2, but disclose that this measure would be unlikely to mitigate the Project's impacts to a less than significant level. There are no other feasible mitigation measures that are available to offset these significant impacts. Therefore, the impacts would remain significant and unavoidable.
Visual Resources	
VIS-2. Short-Term Changes in Scenic Vistas and Existing Visual Character.	Construction activities and the presence of construction equipment will degrade the visual quality of this area of the Sacramento River for residents, visitors, and recreational users to a potentially significant level. The ARCF GRR EIR and Supplemental EIR impose MMs VEG-1, VEG-2, SRA-1, and VIS-1, but disclose that those measures would be unlikely to mitigate the Project's impacts to a less than significant level. There are no other feasible mitigation measures that are available to offset these significant impacts. Therefore, the impacts would remain significant and unavoidable.

B. BALANCING OF BENEFITS AND RISKS ASSOCIATED WITH LEASE APPROVAL

State CEQA Guidelines section 15093, subdivision (a) requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project. The Project would provide benefits as presented in CVFPB's Statement of Overriding Considerations (Attachment B-1), excerpted from CVFPB's "Statement of Findings and Statement of Overriding Considerations for the American River Watershed Common Features, Water Resources Development Act of 2016 Project, Sacramento River Erosion Contract 2, Sacramento, California" adopted with the Supplemental EIR on October 28, 2022.

C. COMMISSION ADOPTION OF STATEMENT OF OVERRIDING CONSIDERATIONS

As noted above, under Public Resources Code section 21081, subdivisions (a)(3) and (b), and State CEQA Guidelines section 15093, subdivision (a), the decision-making agency is required to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or state-wide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve a project.

For purposes of CEQA, if these benefits outweigh the unavoidable significant environmental effects of a proposed project, the decision-making agency may approve the underlying project. CEQA, in this respect, does not prohibit the Commission from approving the Project, even if the activities authorized by that approval may cause significant and unavoidable environmental effects. This balancing is particularly difficult given the significant and unavoidable impacts on the resources discussed in the EIRs and these Findings. Nevertheless, the Commission finds, as set forth below, that the benefits anticipated by implementing the Project outweigh and override the expected significant effects.

The Commission has balanced the benefits of the Project, as described in Attachment B-1, against the significant unavoidable impacts that will remain after approval of the lease associated with the Approved Project and with implementation of all feasible mitigation in the ARCF GRR EIR and Supplemental EIR that is adopted as enforceable conditions of the Commission's approval of the Project. The Project is intended to provide erosion protection and on-site riparian habitat features to benefit the Sacramento River Watershed. The Project would protect and strengthen the Sacramento River levees to reduce riverbank erosion and reduce flood risk within the Sacramento metropolitan area. Levee

failure would threaten public safety, property, and critical infrastructure throughout Sacramento. Multiple erosion control measures are planned to allow conveyance of the 200-year flood flow without risk of levee failure. Based on all available information, the Commission finds that the benefits of the approved Project outweigh the significant and unavoidable adverse environmental effects and considers such effects acceptable.

The Commission adopts and makes this Statement of Overriding Considerations with respect to the impacts identified in the ARCF GRR EIR and Supplemental EIR and these Findings that cannot be reduced to a less than significant level. Each benefit set forth above, described in Attachment B-1, or described below constitutes an overriding consideration warranting approval of the Project, independent of the other benefits, despite each and every significant unavoidable impact.

5.0. CONCLUSION

The Commission has considered the ARCF GRR EIR and Supplemental EIR and all of the environmental impacts described therein including those that cannot be mitigated to a less than significant level and those that may affect Public Trust uses of State sovereign land. Based on the foregoing and pursuant to Public Resources Code section 21081 and State CEQA Guidelines sections 15096 subdivision (h) and 15093, the Commission has considered the fiscal, economic, legal, social, environmental, and public health and safety benefits of the Project and has balanced them against the Project's significant and unavoidable and unmitigated adverse environmental impacts and, based upon substantial evidence in the record, has determined that the benefits of the Project outweigh the adverse environmental effects. The Commission finds that the remaining significant unavoidable impacts of the Project are acceptable in light of these benefits. Such benefits outweigh such significant and unavoidable impacts of the Project and provide the substantive and legal basis for this Statement of Overriding Considerations.

The Commission finds that to the extent that any impacts identified in the ARCF GRR EIR and Supplemental EIR remain unmitigated, all associated measures have been required to the extent feasible, although the impacts could not be reduced to a less than significant level.

Based on the above discussion, the Commission finds that the benefits of the Project outweigh the significant unavoidable impacts that could remain after mitigation is applied and considers such impacts acceptable.

ATTACHMENT B-1

Statement of Overriding Considerations Adopted by the Central Valley Flood Protection Board

means to avoid or eliminate the remaining significant and unavoidable effects.

5. Alternative 2 as described in the ARCF GRR Final EIS/EIR, while still having significant and unavoidable impacts, has a greater benefit to the environment while meeting most of the Project objectives.

6. The No Action (No Project) Alternative assumes that no work would be completed by USACE, and the City of Sacramento and surrounding areas (study area) would continue to be at a very high risk of levee failure and subsequent flooding of a major portion of the Sacramento Metropolitan area. The No Action Alternative is inconsistent with the objectives of the Project and leaves the area at an unacceptable level of flood risk. The No Action Alternative is not a feasible means to avoid the residual significant and unavoidable effects of the Project, and increases the probability of major flooding that would undoubtedly cause substantially greater environmental impacts from the flood clean-up and reconstruction efforts than the residual significant and unavoidable effects of the Project.

7. Since the Board certified the ARCF GRR Final EIS/EIR in April 2016, and selected Alternative 2, USACE and the Board have worked to refine the design for the Project. The Project has been refined and adjusted to further reduce significant and significant and unavoidable impacts compared to the significant and significant and unavoidable impacts identified in the ARCF GRR Final EIS/EIR.

IV. Statement of Overriding Considerations

The Final Supplemental EIR/EA concludes that implementing the Project would result in significant and unavoidable environmental impacts that cannot be avoided or substantially lessened with the incorporation of all available and feasible mitigation measures or implementation of other feasible alternatives. This Statement of Overriding Considerations is therefore necessary to comply with State CEQA Guidelines Section 15093.

In accordance with State CEQA Guidelines Section 15093, the Board balanced the economic, social, technological, and other benefits of the Project against its significant and unavoidable environmental impacts, and has found that the benefits of the Project outweigh the significant and unavoidable adverse environmental effects to vegetation and wildlife, recreation, and visual resources that cannot be feasibly mitigated to less-than-significant levels. Overriding considerations that support Project approval are as follows:

- The purpose of the Project is to reduce flood risk to the Sacramento area. Flood risk reduction is necessary to provide economic, social, and other benefits, as flood events are often uncontrolled and can result in deaths or injuries, damage to property and infrastructure, release of environmental contaminants, and cause substantial environmental impacts from flood clean-up and rebuilding activities.

- Sacramento is identified as one of the most at-risk communities in the nation for flooding, motivating the need to reduce this risk through numerous flood damage reduction measures. The existing system leaves the highly urbanized Sacramento area at an unacceptably high level of flood risk. The Sacramento River east levee is a key feature for flood risk management for Sacramento.

- Major storms in 1986 and 1997, as well as significant rainfall in recent years, have caused record flood flows in the American River watershed and high lake levels in Folsom Reservoir. Outflows from Folsom Dam, together with high flows in the Sacramento River, caused the river stages to exceed the designed safety margin of levees protecting the City of Sacramento. Levee failure along the lower American River and Sacramento River could result in flooding of more than 100,000 acres, affecting a population of up to 900,000, with damages totaling up to $58 billion, depending on the magnitude of the event. A large flood could also result in disruption of drinking water supplies with statewide impacts.

- The Project incorporates all feasible means to minimize, avoid, and mitigate for potentially significant and significant and unavoidable adverse impacts on the physical environment.

- The long-term flood risk management benefits potentially provided by the Project starting in 2024 far outweigh the significant and unavoidable adverse environmental effects of the Project, most of which are temporary during the 2-year construction window. In light of these considerations, the significant and unavoidable impacts on vegetation and wildlife, recreation, and visual resources are considered acceptable.

- The Board finds that the Project's benefits that substantially reduce flood risks to more than 100,000 acres; up to 900,000 people; and up to $58 billion in total damages override the significant and unavoidable impacts, most of which are short-term during the 2-year construction period, resulting from the construction, operations, and maintenance of the Project.