**RESOLUTION 09-156**

Adopted by the Sacramento Area Flood Control Agency

**CERTIFICATION OF THE ENVIRONMENTAL IMPACT REPORT ON THE NATOMAS LEVEE IMPROVEMENT PROGRAM PHASE 4A LANDSIDE IMPROVEMENTS PROJECT; ADOPTION OF FINDINGS AND A STATEMENT OF OVERRIDING CONSIDERATIONS, MITIGATION MEASURES, AND A MITIGATION MONITORING AND REPORTING PROGRAM; AND APPROVAL OF THE NATOMAS LEVEE IMPROVEMENT PROGRAM PHASE 4A LANDSIDE IMPROVEMENTS PROJECT**

WHEREAS, Section 20(c) of the SAFCA Act {Stats.1990, c. 510 (S.B.46), §1.}, finds and declares that a purpose of SAFCA is to coordinate a regional effort to finance, provide, and maintain facilities and works necessary to ensure a reasonable and prudent level of flood protection, as determined by the agency, in developed and urbanizing areas which are designated for residential, commercial, or industrial uses within its boundaries and to provide local assurances and participate in cost sharing for federal flood control projects; and

WHEREAS, Section 52 of the SAFCA Act states that SAFCA shall have as its highest priority the protection of life, property, watercourses, watersheds, and public highways within its boundaries from damage from flood and storm waters; and

WHEREAS, Section 52 of the SAFCA Act further mandates that SAFCA carry out its flood control responsibilities in ways that provide for the optimum protection of the natural environment, especially riparian habitat and natural stream channels suitable for native plant and wildlife habitat and public recreation; and

WHEREAS, the Natomas Levees Improvement Program Landside Improvements Project ("NLIP Landside Improvements Project") consists of improvements to the levee system in the Natomas Basin and related landscape modifications and drainage and infrastructure improvements to reduce the risk of flooding in a significant portion of the Sacramento metropolitan area, thereby implementing a portion of the flood control program analyzed at the program level in the Environmental Impact Report on Local Funding Mechanisms for Comprehensive Flood Control Improvements for the Sacramento Area (State Clearinghouse No. 2006072098) ("Local Funding EIR"); and

WHEREAS, the NLIP Landside Improvements Project was further evaluated in the Environmental Impact Report on the NLIP Landside Improvements Project (State Clearinghouse No. 2007062016) ("2007 Landside EIR"), and consists of elements that were analyzed in the 2007 Landside EIR at a project level (the "Phase 2 Project") and elements that were analyzed at a program level (the "Phase 3 Project" and the "Phase 4 Project"); and

WHEREAS, the Phase 3 Project has been analyzed at a project level in the Environmental Impact Report on the NLIP Phase 3 Landside Improvements Project (State Clearinghouse No. 2008072060) ("Phase 3 EIR")

# EXHIBIT A

## FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS FOR THE NATOMAS LEVEE IMPROVEMENT PROGRAM PHASE 4A LANDSIDE IMPROVEMENTS PROJECT

### I. ENVIRONMENTAL REVIEW PROCESS

The Final Environmental Impact Report ("FEIR") on the Natomas Levees Improvement Program ("NLIP") Phase 4a Landside Improvements Project (State Clearinghouse No. 2009032097) ("Final EIR"), prepared by the Sacramento Area Flood Control Agency ("SAFCA"), analyzes Phase 4a of the Landside Improvements Project ("Phase 4a Project"), which is proposed for construction during the years 2010 through 2011. The Phase 4a Project consists of improvements to a portion of the Natomas Basin's perimeter levee system in Sutter and Sacramento Counties, California, and associated landscape and irrigation/drainage infrastructure modifications, and environmental mitigation including habitat creation, preservation and management, as proposed by SAFCA. SAFCA has initiated this effort in cooperation with the California Department of Water Resources and the Central Valley Flood Protection Board ("the State"), and the U.S. Army Corps of Engineers ("USACE"), Sacramento District, with the aim of incorporating the NLIP into the Natomas components of the Federally authorized American River Common Features Project ("Common Features Project").

The FEIR is a project-level EIR pursuant to Section 15161 of the State CEQA Guidelines (14 CCR § 15000 et seq.). The FEIR is tiered from, or incorporates by reference, information contained in the following documents:

- *Environmental Impact Report on Local Funding Mechanisms for Comprehensive Flood Control Improvements for the Sacramento Area*, State Clearinghouse No. 2006072098 ("Local Funding EIR") (SAFCA 2007a), which evaluated impacts expected to result from the Phase 1 Project at a project level and the NLIP at a program level;

- *Environmental Impact Report on the Natomas Levee Improvement Program, Landside Improvements Project*, State Clearinghouse No. 2007062016 ("Phase 2 EIR") (SAFCA 2007b), which evaluated impacts expected to result from the Phase 2 Project at a project level and the NLIP at a program level;

- *Environmental Impact Statement for 408 Permission and 404 Permit to Sacramento Area Flood Control Agency for the Natomas Levee Improvement Project* ("Phase 2 EIS") (USACE 2008), which evaluated impacts expected to result from the Phase 2 Project at a project level and the NLIP at a program level;

- *Supplement to the Environmental Impact Report on the Natomas Levee Improvement Program, Landside Improvements Project—Phase 2 Project*, State Clearinghouse No. 2007062016 ("Phase 2 SEIR") (SAFCA 2009a), which evaluated impacts expected to result from the modification to the Phase 2 Project at a project level;

- *Draft Environmental Impact Statement/Draft Environmental Impact Report on the Natomas Levee Improvement Program, Phase 3 Landside Improvements Project*, State Clearinghouse No. 2008072060 ("Phase 3 DEIS/DEIR") (USACE and SAFCA 2009), which evaluated the Phase 3 Project's potential impacts at a project level; and

- *Final Environmental Impact Report on the Natomas Levee Improvement Program, Phase 3 Landside Improvements Project*, State Clearinghouse No. 2008072060 ("Phase 3 FEIR") (SAFCA 2009b), which evaluated the Phase 3 Project's potential impacts at a project level.[1]

Consistent with CEQA Guidelines Section 15152, the project-level EIR incorporates by reference general discussions from the above-referenced documents as appropriate, and focuses on the significant effects on the environment that were not adequately addressed in those documents.

The overall purpose of the NLIP is to bring the entire 42-mile Natomas Basin perimeter levee system into compliance with applicable Federal and state standards for levees protecting urban areas. SAFCA's project objectives adopted in connection with the NLIP are: (1) provide at least a 100-year level of flood risk reduction to the Natomas Basin as quickly as possible, (2) provide 200-year flood risk reduction to the Basin over time, and (3) avoid any substantial increase in expected annual damages as new development occurs in the Basin. The first two project objectives would reduce the residual risk of flooding sufficiently to meet the minimum requirements of Federal and state law for urban areas like the Natomas Basin. The third project objective is a long-term objective of SAFCA.

Additional project objectives that have informed SAFCA's project design are to:

(1) use flood damage reduction projects in the vicinity of the Sacramento International Airport to facilitate management of Airport lands in accordance with the Airport's Wildlife Hazard Management Plan (Sacramento County Airport System [SCAS] 2007); and

(2) use flood damage reduction projects to increase the extent and connectivity of the lands in the Natomas Basin being managed to provide habitat for giant garter snake, Swainson's hawk, and other special-status species.

The Landside Improvements Project, which is a component of the NLIP, consists of four phases. The Phase 4a Project is one of two subphases of the fourth project phase of the NLIP Landside Improvements Project, and includes proposed improvements affecting approximately 6 miles of the levee system in Reaches 10-15 of the Sacramento River east levee and two pump station sites along the Natomas Cross Canal (NCC) south levee. The Phase 4a Project is described in detail in Section 2.3, *Proposed Action*, of the DEIS/DEIR as modified by Chapter 2, *Minor Modifications to the Phase 4a Project*, of the FEIR.

[1] Although SAFCA has certified the Phase 3 EIR, USACE has not yet issued its Section 408 ROD for the Phase 3 Project, but is expected to do so in December 2009. In October 2009, USACE issued its Phase 3a ROD, which covers the issuance of a Section 404 permit.

On March 27, 2009, USACE and SAFCA issued a Notice of Intent ("NOI") and Notice of Preparation ("NOP"), respectively, indicating that an EIS/EIR would be prepared for the project. The NOP was filed with the State Clearinghouse and circulated to governmental agencies and the public for 30 days for review and comment. Comment letters were received. The DEIS/DEIR was published on August 28, 2009, for a 45-day public review period that ended on October 13, 2009. During that time, the DEIS/DEIR was reviewed by various governmental agencies, as well as by interested individuals and organizations. In addition, members of the public were invited by formal public notice to submit comments on the DEIS/DEIR in testimony at a public hearing held for that purpose on September 17, 2009. Additional public comments were received at this hearing.

USACE will prepare a separate Final Environmental Impact Statement (FEIS) in accordance with the requirements of the National Environmental Policy Act (NEPA). USACE is the lead Federal agency for complying with NEPA. The FEIS will constitute a reprint of the entire Draft EIS/EIR, and will include comment letters, responses to comments, and any text changes/clarifications/modifications.

The FEIR includes the DEIS/DEIR published in August 2009, as well as comments on the DEIS/DEIR, responses to those comments, and revisions to the DEIS/DEIR. The FEIR, published in November 2009, was presented to the SAFCA Board of Directors ("Board") and the Board has reviewed the FEIR. The analysis and conclusions contained in the FEIR reflect the independent judgment of SAFCA. Based on all of the information and evidence in the record, the Board hereby makes the following Findings with respect to the Phase 4a Project.

## II. SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS AND DISPOSITION OF RELATED MITIGATION MEASURES

The FEIR identifies the following significant and unavoidable adverse impacts associated with the Phase 4a Project and related mitigation measures. It is hereby determined that these significant and unavoidable adverse impacts are acceptable for the reasons specified in Section VI, below.

### A. Impact 4.2-a: Conversion of Important Farmland to Nonagricultural Uses

The Phase 4a Project flood damage reduction facilities, habitat compensation land, and soil borrowing would convert Important Farmland to nonagricultural uses. This impact would be significant. Implementation of Mitigation Measure 4.2-a, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact, but not to a less-than-significant level. This mitigation measure would provide for specific ways to minimize impacts on Important Farmland, but no new farmland would be made available and the productivity of existing farmland would not be improved. Although in the long term there would be a less-than-significant impact on conversion of Important Farmland for borrow sites, temporary conversion of Important Farmland for borrow sites is considered a significant and unavoidable impact in the short term. Therefore, this impact would remain significant and unavoidable.

**Mitigation Measure 4.2-a: Minimize Important Farmland Conversion to the Extent Practicable and Feasible**

*SAFCA shall implement the measures listed below with regard to Prime Farmland, Unique Farmland, and Farmland of Statewide Importance to minimize impacts on these lands.*

*(a) Borrow sites shall be configured to minimize the fragmentation of lands that are to remain in agricultural use. Contiguous parcels of agricultural land of sufficient size to support their efficient use for continued agricultural production shall be retained to the extent practicable and feasible.*

*(b) To the extent practicable and feasible, when expanding the footprint of a flood damage reduction facility (e.g., levee or berm) onto agricultural land, the most productive topsoil from the construction footprint shall be salvaged and redistributed to less-productive agricultural lands in the vicinity of the construction area that could benefit from the introduction of good-quality soil. By agreement between the implementing agencies or landowners of affected properties and the recipient(s) of the topsoil, the recipient(s) shall be required to use the topsoil for agricultural purposes. SAFCA shall implement all terms and conditions of agreements.*

*(c) During project construction, use of utilities that are needed for agricultural purposes (including wells, pipelines, and power lines) and of agricultural drainage systems shall be minimized so that agricultural uses are not substantially disrupted.*

*(d) Disturbance of agricultural land and agricultural operations during construction shall be minimized by locating construction staging areas on sites that are fallow, that are already developed or disturbed, or that are to be discontinued for use as agricultural land, and by using existing roads to access construction areas to the extent possible.*

*(e) To the extent feasible, lands acquired for flood damage reduction purposes shall also be used as mitigation land for Natomas Basin Habitat Conservation Plan (NBHCP) programs so that agricultural land conversion is minimized.*

B. Impact 4.2-b: Conflict with Lands under Williamson Act Contracts

Levee construction, conversion of agricultural land to managed habitat, and borrow operations would require temporary and permanent termination of some Williamson Act contracts and would affect properties in Agricultural Preserves. This impact would be significant. Implementation of Mitigation Measure 4.2-b, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact, but not to a less-than-significant level. Therefore, this impact would remain significant and unavoidable.

**Mitigation Measure 4.2-b**: **Minimize Impacts on Agricultural Preserve Land and Williamson Act–Contracted Land; Comply with Government Code Sections 51290–51293; and Coordinate with Landowners and Agricultural Operators**

*To reduce impacts on Agricultural Preserve land and on lands under Williamson Act contracts, SAFCA shall implement the measures described below.*

*(a) SAFCA shall comply with California Government Code Sections 51290–51295 with regard to acquisition of Williamson Act contracted lands as follows:*

- *The policy of the state, consistent with the purpose of the Williamson Act to preserve and protect agricultural land, is to avoid, whenever practicable, locating public improvements and any public utilities improvements in agricultural preserves. If it is necessary to locate within a preserve, it shall be on land that is not under contract (Government Code Section 51290[a][b]). More specifically, the basic requirements are:*

    - *Whenever it appears that land within a preserve or under contract may be required for a public improvement, the public agency or person shall notify the California Department of Conservation (DOC) and the city or county responsible for administering the preserve (Government Code Section 51291[b]).*

    - *Within 30 days of being notified, DOC and the city or county shall forward comments, which shall be considered by the public agency or person (Section 51291[b]).*

- *The contract shall be terminated when land is acquired by eminent domain or in lieu of eminent domain (Government Code Section 51295).*

- *DOC and the city or county shall be notified before project completion of any proposed substantial changes to the public improvement (Government Code Section 51291[d]).*

- *DOC shall be notified within 10 working days upon completion of the acquisition (Section 51291[c]).*

- *If, after acquisition, the acquiring public agency determines that the property will not be used for the proposed public improvement, before returning the land to private ownership, DOC and the city or county administering the involved preserve shall be notified. The land shall be reenrolled in a new contract or encumbered by an enforceable restriction at least as restrictive as that provided by the Williamson Act (Government Code Section 51295).*

*(b) SAFCA shall coordinate with landowners and agricultural operators to sustain existing agricultural operations, at the landowners' discretion, within the project area until the individual agricultural parcels are needed for project construction.*

*(c) Properties that were under Williamson Act contract prior to conversion for borrow use and that are owned by SAFCA or are acquired by SAFCA shall be reenrolled under Williamson Act contract upon reclamation to agricultural use if those properties can be covered by the Williamson Act.*

C. Impact 4.3-c: Potential to Physically Divide or Disrupt an Established Community

Although the Phase 4a Project would not require full closure or demolition of Garden Highway, intermittent short-duration road closures and detours would disrupt residents' access to the nearby community and would cause a temporary physical disruption to the community. Construction of the adjacent levee would also temporarily alter access to landside residences with driveways connecting to Garden Highway. Temporary disruptions to access for residents would be a significant impact. Implementation of Mitigation Measure 4.3-c, summarized and set forth below, would reduce this impact, but not to a less-than-significant level. Mitigation Measure 4.3-c is hereby adopted and incorporated into the Phase 4a Project. Mitigation Measure 4.10-a is set forth in full in the discussion of Impact 4.10-a, below. Mitigation Measure 4.10-c is set forth in the discussion of Impact 4.10-c, below. Residents and businesses would still experience temporary disruption due to road closures, detours, and construction. Therefore, this impact would remain significant and unavoidable.

**Mitigation Measure 4.3-c: Notify Residents and Businesses of Project Construction and Road Closure Schedule; Comply with the Garden Highway Settlement Agreement; and Implement Mitigation Measure 4.10-a, "Prepare and Implement a Traffic Safety and Control Plan for Construction-Related Truck Trips," and Mitigation Measure 4.10-c, "Notify Emergency Service Providers about Project Construction and Maintain Emergency Access or Coordinate Detours with Providers"**

*SAFCA and its primary contractors for engineering design and construction shall implement Mitigation Measures 4.10-a, "Prepare and Implement a Traffic Safety and Control Plan for Construction-Related Truck Trips," and 4.10-c, "Notify Emergency Service Providers about Project Construction and Maintain Emergency Access or Coordinate Detours with Providers," set forth in full in Section 4.10, "Transportation and Circulation." Additionally, the following measures shall be implemented:*

*a) SAFCA shall provide residents and business owners located adjacent to the construction areas with information regarding construction activities including contact information and complaint procedures, and with a construction timeline and shall post its construction schedule on the SAFCA Web site. Information shall include road closures and detour information. The schedule shall be updated on a regular basis.*

*b) SAFCA shall apply the following measures to power line relocations: To the extent that the main electrical power transmission lines and poles serving the Garden Highway must be relocated or replaced to accommodate the project, the relocation or replacement shall occur east of the new adjacent levee and in a manner that appropriately accommodates private landside improvements and properties. Existing main electrical power transmission lines and poles on the waterside of the existing Garden Highway levee that do not need to be relocated or replaced to accommodate the project may be left in place. No new main electrical power transmission lines and poles shall be installed on the waterside of the Garden Highway levee. Consistent with sound engineering practices that prioritize the following, individual services shall: (1) use existing configurations and facilities, and (2) any new poles shall be placed on the landside of Garden Highway, subject to the approval of U.S. Army Corps of Engineers (USACE), the Central Valley Flood Protection Board (CVFPB), and any other regulatory public agencies and utility companies. If the affected property owner and SAFCA cannot agree on a location of an*

*individual service line pole from among locations that are otherwise acceptable to USACE, CVFPB, other regulatory agencies, and the utility provider, SAFCA shall pay the cost of a referee, who is a qualified registered civil engineer and agreeable to both the affected property owner and SAFCA, to decide the dispute over the location of the individual service line pole.*

c) *SAFCA shall apply the following measure to encroachments: Once SAFCA determines that the Sacramento River east levee is certifiable for the Federal Emergency Management Agency's (FEMA's) flood protection purposes, SAFCA shall make its best efforts to get written agreement from USACE, CVFPB, and RD 1000 that no additional encroachments on the waterside of the Garden Highway levee need to be removed.*

d) *SAFCA shall implement the following measures before and during construction:*

(i) *SAFCA shall give property owners within the project area an informational package advising the property owners that preproject inspections of their properties are important and that SAFCA will conduct a free preconstruction inspection of the property, but only if requested by the affected property owner. The scope of the inspection and documentation shall be determined by SAFCA in consultation with the property owner. For property owners who request prior inspections/ documentation, the inspection/documentation must be scheduled prior to the start of construction within the specified reach of the Sacramento River east levee where project construction will commence.*

(ii) *If requested by a property owner within the project area, SAFCA shall test the owner's domestic well water before and after project construction for the presence of bentonite, concrete, and cement.*

(iii) *SAFCA shall cooperate with a construction monitoring committee established by local residents and businesses to resolve reasonable complaints regarding SAFCA or its contractors' construction activities for the projects improvements in accordance with this provision. A complaint procedure and hierarchy shall be developed by the committee and SAFCA's Ombudsperson in time to be included in the informational packet referenced in subsection (i), above. In addition, the information packet shall include SAFCA's instructions to its contractors regarding appropriate use of the Garden Highway. SAFCA agrees to resolve all complaints pertaining to dangerous activities immediately and to resolve all other reasonable complaints in an expeditious manner.*

(iv) *SAFCA shall prohibit the use of earth-moving equipment or haul trucks on the Garden Highway in conjunction with project constructions.*

(v) *SAFCA shall provide local residents and businesses with a timeline for the phased completion of the project that indicates the role of the various agencies involved in implementing or permitting the project. SAFCA shall post its construction schedule for the project on the SAFCA Web site. The schedule shall be updated on a monthly*

*basis. In addition, SAFCA shall post a "60-day notice" of Planned Construction on the SAFCA Web site. "Planned Construction" shall not include construction in the event of an emergency or construction necessary to remedy a condition discovered after completion of the project. However, SAFCA shall provide whatever notice is possible under the circumstances to affected, adjacent landowners prior to any emergency or remedial work.*

*(e) SAFCA shall apply the following measures to drainage line location and relocation: No roadside swales shall be included in the design of the new adjacent levee downstream of Powerline Road. Consistent with sound engineering practices, and subject to the approval of USACE, CVFPB, and the Regional Water Quality Control Board (RWQCB), any new drainage outfall lines required by the project shall be buried pipes, located along property lines, and drain to the river. If a property owner does not want a new drain line located along the property line, he or she may request that the drain line be placed elsewhere on his or her property. If the property owner and SAFCA cannot agree on a location for a new drain line from among locations that are otherwise acceptable to USACE, CVFPB, and Central Valley RWQCB, SAFCA shall pay the cost of a referee, who is a qualified registered civil engineer and agreeable to both parties, to decide the dispute over the location of the drain line.*

*(f) Where a property owner occupies a residence on property to be acquired for the project, SAFCA shall allow up to 12 months, rather that the statutory allowance of 3 months, for the owner to relocate off the property. The 12-month period shall be counted from the first written offer.*

*(g) SAFCA shall provide notice as feasible for emergency construction or remedial construction.*

D. Impact 4.4-b: Potential Loss of Mineral Resources

Implementation of the Phase 4a Project would include excavation of soil from the eastern edge of the Fisherman's Lake Borrow Area, which is zoned MRZ-3 by the Department of Conservation's Division of Mines and Geology. The MRZ-3 designation indicates that the significance of mineral deposits in that area cannot be evaluated from existing data. Because economically valuable minerals, if present, could be removed from a portion of the Fisherman's Lake Borrow Area, this impact is considered to be potentially significant. Implementation of Mitigation Measure 4.4-b, set forth below, would reduce this impact, but not to a less-than-significant level. Mitigation Measure 4.4-b is hereby adopted and incorporated into the Phase 4a Project. While implementing this mitigation measure would provide data that would allow SAFCA to determine whether or not economically valuable mineral resources are present in the designated MRZ-3 area of the Fisherman's Lake Borrow Area, if economically valuable mineral resources were found to be present, they would be removed as part of project activities. Therefore, this potential impact is considered significant and unavoidable.

**Mitigation Measure 4.4-b: Conduct Soil Core Sampling in Areas of the Phase 4a Project Footprint Designated as MRZ-3**

*SAFCA shall retain a qualified geologist to analyze soil core samples extracted from proposed borrow sites, to depth of at least 3 feet, in areas that are designated as MRZ-3. In the event that a clean layer of economically viable aggregate is discovered, the county, DOC, and other appropriate agencies shall be notified. In addition, the horizontal extent of available aggregate shall be delineated by a qualified geologist.*

E. Impact 4.7-a: Loss of Woodland Habitats

The Phase 4a Project would involve the short-term loss of woodland habitat. The Phase 4a Project would offset the loss of woodlands by preserving and creating woodlands; however there would be a short-term loss of woodland habitat as the replacement plantings mature within approximately 10-15 years. This impact due to loss of existing woodland habitat while the replacement plantings are maturing would be significant. Additionally, the Phase 4a Project may involve the long-term loss of woodlands, if habitat creation/reservation is not effectively implemented, which would result in a potentially significant impact. Implementation of Mitigation Measure 4.7-a, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce long-term impacts to a less-than-significant level, but the short-term impact would remain significant and unavoidable.

**Mitigation Measure 4.7-a**: **Minimize Effects on Woodland Habitat; Implement all Woodland Habitat Improvements and Management Agreements; Compensate for Loss of Habitat; and Comply with Section 7 of the Federal Endangered Species Act, Section 1602 of the California Fish and Game Code, and Section 2081 of the California Endangered Species Act Permit Conditions**

*To reduce impacts on the loss of woodland habitat, SAFCA shall implement the measures described below:*

- *Native woodland areas shall be identified and the primary engineering and construction contractors shall ensure, through coordination with a qualified biologist retained by SAFCA, that construction is implemented in a manner that minimizes disturbance of such areas to the extent feasible. Temporary fencing shall be used during construction to prevent disturbance of native trees that are located adjacent to construction areas but can be avoided.*

- *SAFCA shall coordinate with U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), DFG, and the Sacramento County Airport System (SCAS) (if on Airport property) to ensure that all woodland habitat improvements of the NLIP are created and managed. SAFCA shall prepare a project-specific Mitigation and Monitoring Plan (MMP) and append the programmatic Long-Term Management Plan (LTMP) to ensure the creation and long-term management of these components before construction commences. SAFCA shall enter into agreements with the appropriate local entity responsible for long-term management of these created woodland habitats and shall coordinate with USFWS, NMFS, and DFG to ensure that performance standards and long-term management goals that are required by the regulatory agencies with jurisdiction over these resources will be specifically detailed and outlined in the MMP and LTMP. All performance standards and long-term management goals will be in full compliance with the Endangered Species Act*

*(ESA) and California Endangered Species Act (CESA). SAFCA shall implement all terms and conditions of the agreements.*

- *Sacramento River waterside riparian woodland areas that provide shaded riverine aquatic (SRA) habitat functions shall be identified and the primary engineering and construction contractors shall ensure, through coordination with a qualified biologist retained by SAFCA, that construction is implemented in a manner that minimizes disturbance of such areas to the extent feasible. Temporary fencing shall be used during construction to prevent disturbance of trees and shrubs that are located adjacent to construction areas but can be avoided.*

- *Sacramento River waterside riparian forest and scrub (canopy acreage) shall be restored using ratios established by NMFS. Mitigation shall be 1:1 for in-kind mitigation and 3:1 for mitigation above the levee bench hinge (a surrogate for the ordinary high water mark (OHWM) for impacts below the levee bench hinge (OHWM). Mitigation shall be conducted using native plant species, including an assemblage of grasses, sedges, shrubs, and trees. At maturity, the riparian vegetation community would provide SRA functions. SAFCA shall develop a detailed woodland planting design and management protocols in coordination with USFWS, NMFS, and DFG. A monitoring plan with performance criteria shall be developed to determine the progress of the woodland habitats towards providing adequate mitigation.*

- *The criteria for measuring performance shall be used to determine if the habitat improvement is trending toward sustainability (reduced human intervention) and to assess the need for adaptive management (e.g., changes in design or maintenance revisions). These criteria must be met for the habitat improvement to be declared successful, both during a particular monitoring year and at the end of the establishment period. These performance criteria, shall be developed in consultation with USFWS, NMFS, and DFG, and shall include, but not be limited to:*
  - *percent survival of planted trees (from 65–85%),*
  - *percent survival of transplanted trees (from 60–85%), and*
  - *percent relative canopy cover (from 5–35%).*

- *SAFCA shall also enter into agreements with entities responsible for long-term management of created SRA habitats to ensure that performance standards and long-term management goals are met. SAFCA shall provide assurances for habitat creation and management goals that are required by regulatory agencies with jurisdiction over these resources will be specifically detailed and outlined in the LTMP and MMP. Such agreements shall be coordinated with USFWS, NMFS, and DFG. SAFCA shall implement all terms and conditions of the agreements.*

- *A Section 1602 Streambed Alteration Agreement from DFG shall be obtained before any trees within a stream zone under DFG jurisdiction are removed. SAFCA shall comply with all terms and conditions of the streambed alteration agreement including measures to protect fish habitat or to restore, replace, or rehabilitate any SRA habitat on a no-net-loss basis.*

- *USACE shall initiate Section 7 consultation with NMFS under Section 7 of the Federal ESA and SAFCA shall consult or coordinate with DFG under CESA regarding potential impacts of the loss of SRA habitat on Federally listed fish species and state-listed fish species, respectively. SAFCA shall implement any additional measures developed through the ESA Section 7 and CESA consultation processes, including Section 2081 permit conditions, to ensure no net loss of SRA habitat functions.*

F. Impact 4.7-f: Impacts on Swainson's Hawk and Other Special-Status Birds

The Phase 4a Project would have potential adverse impacts on Swainson's hawk, white-tailed kite, Cooper's hawk, northern harrier, and other special-status birds include loss of suitable foraging and nesting habitat and disturbance of nesting pairs during project construction. The impact to foraging habitat, nesting habitat, and nesting behavior would be potentially significant. Implementation of Mitigation Measure 4.7-f, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would create and preserve nesting and foraging habitat in the Natomas Basin and would reduce long-term impacts to a less-than-significant level. Mitigation Measure 4.7-a is set forth in full in the discussion of Impact 4.7-a, above. However, in the short-term, this impact would remain significant and unavoidable because replacement plantings would likely require a minimum of 10 to 15 years before providing important habitat components such as structure and shade.

**Mitigation Measure 4.7-f**: **Minimize Potential Impacts on Swainson's Hawk and Other Special-Status Birds Foraging and Nesting Habitat, Monitor Active Nests during Construction, Implement All Upland and Agricultural Habitat Improvements and Management Agreements to Compensate for Loss of Quantity and Quality of Foraging Habitat, Obtain Incidental Take Authorization, Implement Mitigation Measure 4.7-a, "Minimize Effects on Woodland Habitat, Implement all Woodland Habitat Improvements and Management Agreements, Compensate for Loss of Habitat, and Comply with Section 7 of the Federal Endangered Species Act, Section 1602 of the California Fish and Game Code, and Section 2081 of the California Endangered Species Act Permit Conditions"**

*SAFCA and its primary for engineering and design consultants and primary construction contractors shall ensure that the following measures are implemented to avoid, minimize, and compensate for potential project effects on Swainson's hawks and other special-status birds:*

- *The engineering and design consultants and primary construction contractors shall ensure, through coordination with a qualified biologist retained by SAFCA, that construction is implemented in a manner that minimizes disturbance of potential nesting habitat for special-status birds through the following activities:*
  - *The biologist shall conduct preconstruction surveys to identify active special-status bird nests near construction areas.*
  - *Surveys for nesting birds shall be conducted before project activities are initiated during the nesting season (March 1– September 15). Surveys shall be conducted in accordance with standardized protocols and NBHCP requirements.*

- *Removal of potential nesting habitat shall be conducted during the non-nesting season, to the extent feasible and practicable, to minimize the potential for loss of active nests.*

- *If an active nest is found, the biologist shall determine an appropriate buffer that minimizes potential for disturbance of the nest, in coordination with DFG. No project activities shall commence within the buffer area until a qualified biologist confirms that the nest is no longer active or the birds are not dependent on it. Monitoring shall be conducted during construction and by a qualified biologist to ensure that project activity does not result in detectable adverse effects on the nesting pair or their young. The size of the buffer may vary, depending on the nest location, nest stage, construction activity, and monitoring results. If implementation of the buffer becomes infeasible or construction activities result in an unanticipated nest disturbance, DFG shall be consulted to determine the appropriate course of action.*

- *The primary engineering and construction contractors shall ensure, through coordination with a qualified biologist retained by SAFCA, that staging areas and access routes are designed to minimize disturbance of known Swainson's hawk nesting territories through the following activities:*

  - *The biologist shall conduct preconstruction surveys to identify active nests within 0.50 mile of construction areas, in accordance with DFG guidelines. Surveys shall be conducted in accordance with NBHCP requirements and Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000).*

  - *If an active nest is found, an appropriate buffer that minimizes the potential for nest disturbance shall be determined by the biologist, in coordination with DFG. No project activities shall commence within the buffer area until a qualified biologist confirms that the nest is no longer active or the birds are not dependent on it. Monitoring shall be conducted during construction and by a qualified biologist to determine whether project activity results in detectable adverse effects on the nesting pair or their young. The size of the buffer may vary, depending on the nest location, nest stage, construction activity, and monitoring results. If implementation of the buffer becomes infeasible or construction activities result in an unanticipated nest disturbance, DFG shall be consulted to determine the appropriate course of action.*

- *SAFCA shall coordinate with USFWS, DFG, and SCAS (if on Airport property) to ensure that the NLIP's woodland, upland, and agricultural habitat improvements are created and managed. SAFCA shall prepare a project-specific MMP and programmatic LTMP to ensure the creation and long-term management of these components before construction commences. SAFCA shall enter into agreements with the appropriate local entity responsible for long-term management of these created Swainson's hawk habitats and shall coordinate with USFWS and DFG to ensure that performance standards and long-term management goals that are required by the regulatory agencies with jurisdiction over these resources will be specifically detailed and outline in the LTMP and MMP. All performance standards and*

*long-term management goals will be in full compliance with ESA and CESA. SAFCA shall implement all terms and conditions of the management agreements.*

- *The criteria for measuring performance shall be used to determine if the habitat improvement is trending toward sustainability (reduced human intervention) and to assess the need for adaptive management (e.g., changes in design or maintenance revisions). These criteria must be met for the habitat improvement to be declared successful, both during a particular monitoring year and at the end of the establishment period. Performance criteria for managed grasslands shall be developed in consultation with USFWS, NMFS, and DFG, and shall include, but not be limited to:*
  - *percent cover of invasive species (<1%),*
  - *percent cover of nonnative herbaceous plants (<10–25%), and*
  - *percent absolute cover of native species (>50–80%).*

- *Authorization for take of Swainson's hawk under CESA shall be obtained. All measures subsequently adopted through the permitting process shall be implemented.*

### G. Impact 4.8-b: Potential Damage or Disturbance to Known Prehistoric Resources from Ground-Disturbance or Other Construction-Related Activities

Ground-disturbing work associated with the Phase 4a Project levee improvements could affect several prehistoric sites by disturbing interred human skeletal remains and associated grave goods. This impact is potentially significant. Implementation of Mitigation Measure 4.8-b, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact, but not to a less-than-significant level. Because of the complex and stratified geomorphology of the area as well as the magnitude of the construction, implementation of Mitigation Measure 4.8-b may not fully reduce impacts to a less-than-significant level. For example, buried components may not be susceptible to adequate documentation prior to intrusive work. Therefore, this impact would remain significant and unavoidable.

**Mitigation Measure 4.8-b**: **Avoid Ground Disturbance Near Eligible and Listed Resources to the Extent Feasible, Prepare a Finding of Effect, and Resolve Any Adverse Effects through Preparation of an HPTP**

*SAFCA shall implement the following measures.*

- *Complete an evaluation of identified resources, and determine the effect of each phase of work on all eligible or listed resources in accordance with Stipulation IV(A) of the PA.*
- *Consult with USACE, the SHPO, the most likely descendent (MLD), and other consulting parties such as Native American individuals and organizations, to develop appropriate treatment or mitigation in an HPTP, per Stipulation V(A) of the PA if the project would result in adverse effects on eligible resources.*
- *Document the site and avoid further effects by protecting the resource through capping per management under an HPTP or other avoidance measures where feasible. Where physical impacts cannot be avoided and such physical impacts could damage the data these sites contain, including mortuary components, further mitigation may be required. Such mitigation may consist of data recovery excavations to retrieve those values and mortuary*

*assemblages that contain significance for archaeology after consultation with and the agreement of the Native American MLD, where possible.*

- *Monitor potentially destructive construction in the vicinity of documented resources, as required under the Construction Monitoring and Inadvertent Discovery Plan.*

H. Impact 4.8-c: Potential Damage to or Disturbance to Previously Undiscovered Cultural Resources from Ground-Disturbance or Other Construction-Related Activities

Ground-disturbing work associated with the Phase 4a Project levee improvements could damage or destroy previously undiscovered cultural resources. This impact is potentially significant. Implementation of Mitigation Measure 4.8-c, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact, but not to a less-than-significant level. There is a possibility that design constraints for proposed improvements and borrow sites will preclude the ability of SAFCA and USACE to avoid impacts on significant resources. Therefore, implementation of Mitigation Measure 4.8-c may not fully reduce all impacts to a less-than-significant level. Therefore, this impact would remain significant and unavoidable.

**Mitigation Measure 4.8-c**: **Train Construction Workers before Construction, Monitor Construction Activities, Stop Potentially Damaging Activities, Evaluate Any Discoveries, and Resolve Adverse Effects on Eligible Resources, if Encountered.**

*SAFCA shall implement the following measures.*

- *SAFCA shall complete surveys to identify cultural resources in the Phase 4a Project footprint, as identified in the Phase 2EIR (SAFCA 2007:3.8-31) at the program level.*

- *Mitigation Measure 3.4-d from the SEIR prepared for the Phase 2 Project is copied below and shall be implemented, as appropriate within the footprint of the Proposed Action (SAFCA 2009: 3.4-10).*

***Mitigation Measure 3.4-d: Conduct Additional Backhoe and Canine Forensic Investigations As Appropriate***

*To increase the data set for identifying buried sites under the existing levee, SAFCA shall recommend that the following additional mitigation measures be adopted by USACE during Section 106 consultation:*

- *Additional inventory may be conducted at appropriate intervals along the Sacramento River east levee, using a backhoe excavator, to increase the sample of information at depths below 6 feet that cannot be reached with conventional shovel test methods. Such methods may be used only when necessary to address potential project-related effects to cultural resources because other methods are ineffective or project circumstances dictate that such resources must be identified in advance of construction. USACE and SAFCA shall consult with the MLD regarding the use of such methods. USACE and SAFCA recognize the Tribe's preference for less invasive methods of investigation such as the use of canine forensics.*

- *Where this process or additional inventory efforts reveal other resources, SAFCA recommends the use of canine forensic investigations as a way of identifying interred human remains with minimal disturbance, and for further refinement of an understanding of the constituents of identified resources.*

- *Before construction begins, a qualified professional archaeologist retained by SAFCA shall give a presentation and training session to all construction personnel so that they can assist with identification of undiscovered cultural resource materials and avoid them where possible. Such training shall note the importance of these materials to Native American groups that attach cultural significance to resources in the project area.*

- *A qualified archaeologist shall monitor ground-disturbing construction activities along the Sacramento River east levee. In areas of known sacred value, such as archaeological sites containing Native American burials, a Native American monitor will be present to observe potentially destructive construction activities and to ensure proper treatment of human remains in accordance with State law. If a previously unidentified archaeological resource is uncovered during construction, construction activities shall be halted in the vicinity of the find and the construction contractor, SAFCA, USACE, the MLD, and the NAHC (if appropriate), and other appropriate parties shall be notified regarding the discovery. Where construction would consist of cutoff walls excavated in a bentonite and/or cement slurry, SAFCA and USACE anticipate that it will not be possible to identify the precise location of any materials found in spoils or at soil mixing stations, thus construction cannot stop during excavation of cutoff walls if resources are discovered in spoils.*

- *SAFCA shall then consult with USACE and the SHPO to determine the eligibility of the resource. If SAFCA and USACE, in consultation with the SHPO, concur that the resource is eligible and the project may result in adverse effects on the resource, SAFCA shall prepare and implement an HPTP as required under the PA, Stipulation V(A). The HPTP shall be prepared in consultation with USACE, the SHPO, and other appropriate consulting parties such as Native American individuals or organizations.*

- *Work may only resume when either all necessary treatment has been performed under the HPTP, or construction in the vicinity will not result in adverse effects, and that work does not encroach within 30 meters of the known boundaries of the resource, or the boundaries designated by the SHPO, per the PA, Stipulation V(B)(2). All treatment stipulated in the HPTP shall be performed by SAFCA, in consultation with USACE.*

I. Impact 4.8-d: Potential Discovery of Human Remains during Construction

The construction methods and procedures involved in the Phase 4a Project preclude completing investigation for human remains in advance of construction; therefore, previously unknown buried human remains may be unearthed, damaged, or destroyed during project construction and excavation of borrow. This impact is potentially significant. Implementation of Mitigation Measure 4.8-d, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact, but not to a less-than-significant level. Mitigation Measure 4.8-c is set forth in full in the discussion of Impact 4.8-c, above. Ground-disturbing

work could still disinter and damage human remains. Therefore, this impact would remain significant and unavoidable.

**Mitigation Measure 4.8-d: Stop Work Within An Appropriate Radius Around the Find, Notify the Applicable County Coroner and Most Likely Descendant, and Treat Remains in Accordance with State Law and Measures Stipulated in an HPTP Developed in Consultation between USACE, SAFCA, and the SHPO**

*If human remains are uncovered during ground-disturbing activities, SAFCA shall cease all ground-disturbing activities within the vicinity of the find, if known. If the discovery occurs in spoils removed from construction of cutoff walls, the remains shall be treated in accordance with state law. Because cutoff walls are constructed at great depth within a slurry of soil and bentonite and/or cement, SAFCA and USACE anticipate that it will not be possible to pinpoint the location of human remains that may be disinterred during construction of these features and it will not be feasible or useful to stop construction. Discovered remains removed from cutoff wall spoils will be treated as required by state law, as follows. SAFCA's archaeological monitors and/or the contractor shall notify the relevant county coroner and a SAFCA-retained archaeologist skilled in osteological analysis to determine the nature of the remains. If the coroner determines that the remains are those of a Native American, he or she must contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). The NAHC will designate an MLD who may decide how to reinter the remains with appropriate dignity in an appropriate location.*

*Prehistoric remains are usually found in the context of an archaeological site. The treatment of any associated site shall be in consultation with the MLD, as required under the PA and Mitigation Measure 4.8-c. It is unlikely, but also possible, that ground-disturbing work may disinter human remains associated with an historic burial, not subject to the jurisdiction of the NAHC. Such a resource shall be treated as an archaeological discovery as required by Mitigation Measure 4.8-c.*

J. Impact 4.10-a: Temporary Increase in Traffic on Local Roadways

Implementation of the Phase 4a Project would result in a substantial but temporary increase in traffic on local roadways associated with construction activities, particularly trucks hauling borrow material. Additionally, construction would require temporary road closures that would increase traffic levels. This impact would be significant. Implementation of Mitigation Measure 4.10-a, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact, but not to a less-than-significant level. Even with implementation of all feasible traffic mitigation, it may not be possible to avoid significant temporary increases in traffic levels. Therefore, this impact would remain significant and unavoidable.

**Mitigation Measure 4.10-a**: **Prepare and Implement a Traffic Safety and Control Plan for Construction-Related Truck Trips**

*Before the start of construction in each construction season, SAFCA and its primary contractors for engineering and construction shall develop a coordinated construction traffic safety and*

*control plan to minimize the simultaneous use of roadways by different construction contractors for material hauling and equipment delivery to the extent feasible and to avoid and minimize potential traffic hazards on local roadways during construction. Upon selection of borrow sites within the Elkhorn Borrow Area, the traffic safety and control plan shall reflect affected roadways. Items (a) through (e) of this mitigation measure, as listed below shall be integrated as terms of the construction contracts.*

*(a) The plan shall outline phasing of activities and the use of multiple routes to and from off-site locations to minimize the daily amount of traffic on individual roadways. SAFCA shall ensure that the construction contractors enforce the plans throughout the construction periods.*

*(b) The construction contractors shall develop traffic safety and control plans for the local roadways that would be affected by construction traffic. Before the initiation of construction-related activity involving high volumes of traffic, the plan shall be submitted for review by Caltrans and the agencies of the local jurisdictions (Sutter County, Sacramento County, and/or City of Sacramento) having responsibility for roadway safety at and between project sites. The plan shall call for the following elements:*

- *posting warnings about the potential presence of slow-moving vehicles;*
- *using traffic control personnel when appropriate; and*
- *placing and maintaining barriers and installing traffic control devices necessary for safety, as specified in Caltrans's Manual of Traffic Controls for Construction and Maintenance Works Zones and in accordance with city/county requirements (Caltrans 1996).*

*The contractor shall train construction personnel in appropriate safety measures as described in the plan and shall implement the plan. The plan shall include the prescribed locations for staging equipment and parking trucks and vehicles. Provisions shall be made for overnight parking of haul trucks to avoid causing traffic or circulation congestion.*

*(c) Consistent with Mitigation Measure 4.11-a "Implement Applicable District-Recommended Control Measures to Minimize Temporary Emissions of ROG, $NO_X$, and $RP_{10}$ during Construction," the track-out of bulk material onto public paved roadways as a result of operations, or erosion, shall be minimized by the use of track-out and erosion control, minimization, and preventative measures. Tracked-out materials shall be removed within 1 hour from adjacent streets anytime such material track-out extends for a cumulative distance of greater than 50 feet onto any paved public road during active operations. All visible roadway dust tracked out upon public paved roadways as a result of active operations shall be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations. Wet sweeping or a HEPA filter equipped vacuum device shall be used for roadway dust removal.*

*(d) Construction of project features along the Sacramento River east levee shall be accommodated through the creation of temporary haul roads along the landside of the*

*adjacent levee and berm footprint. Garden Highway shall not be used for earthen materials hauling activities.*

*(e) A Transportation Management Plan shall be prepared and submitted to Caltrans District 3 to cover any points of access from the state highway system for haul trucks and other construction equipment.*

*(f) Before the start of construction, SAFCA shall coordinate with Sacramento and Sutter Counties and the City of Sacramento to address maintenance and repair of affected roadways resulting from increased truck traffic.*

*(g) Before the start of construction, SAFCA shall provide notification of project construction to all appropriate emergency service providers in Sutter County, Sacramento County, and/or the City of Sacramento and shall coordinate with providers throughout the construction period to ensure that emergency access through construction areas is maintained.*

*(h) Before the start of construction, SAFCA and its primary contractors shall coordinate with Sacramento and Sutter Counties and/or the City of Sacramento regarding any closures of any public roadways.*

K. Impact 4.11-a: Temporary Emissions of ROG, $NO_x$, and $PM_{10}$ during Construction

The Phase 4a Project would result in temporary construction-related emissions of criteria air pollutants—reactive organic gases (ROG) , oxides of nitrogen ($NO_x$), and respirable particulate matter less than 10 microns in diameter ($PM_{10}$)—that could expose nearby sensitive receptors to substantial pollutant concentrations and/or substantially contribute to a violation of an air quality standard. This impact would be significant. Implementation of Mitigation Measure 4.11-a, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact, but not to a less-than-significant level. Phase 4a Project-generated construction-related emissions of ROG and $PM_{10}$ in Sutter County would not be mitigated to levels less than the Feather River Air Quality Management District's (FRAQMD's) recommended thresholds, and project-generated construction-related emissions of $PM_{10}$ in Sacramento County could still substantially contribute to a violation of the ambient air quality standard for $PM_{10}$. Therefore, this impact would remain significant and unavoidable.

**Mitigation Measure 4.11-a**: **Implement Applicable District-Recommended Control Measures to Minimize Temporary Emissions of ROG, $NO_X$, and $PM_{10}$ during Construction**

*SAFCA shall implement mitigation measures as recommended by FRAQMD or SMAQMD, as applicable, and shall comply with all applicable rules and regulations of FRAQMD or SMAQMD, as described below.*

***Construction in Sutter County (FRAQMD)***

*For portions of the project occurring in Sutter County, FRAQMD's Indirect Source Review Guidelines and online CEQA guidance provide mitigation measures for reducing short-term air quality impacts. As recommended by FRAQMD, SAFCA shall ensure that the following*

*mitigation measures are implemented during all project construction activities to the extent practicable. In addition, construction of the proposed levee improvements are required to comply with all applicable FRAQMD rules and regulations, in particular Rule 3.0 (Visible Emissions), Rule 3.16 (Fugitive Dust Emissions), and Rule 3.15 (Architectural Coatings).*

1. *SAFCA shall implement a Fugitive Dust Control Plan that includes the following measures:*

   - *All earthmoving operations should be suspended when winds exceed 20 miles per hour or when winds carry dust beyond the property line despite implementation of all feasible dust control measures.*

   - *Construction sites shall be watered as directed by the Sutter County Department of Public Works or FRAQMD and as necessary to prevent fugitive dust violations.*

   - *An operational water truck shall be on-site at all times. Apply water to control dust as needed to prevent visible emissions violations and off-site dust impacts.*

   - *On-site dirt piles or other stockpiled particulate matter shall be covered, wind breaks installed, and water and/or soil stabilizers employed to reduce wind blown dust emissions. Incorporate the use of approved nontoxic soil stabilizers to all inactive construction areas according to manufacturers' specifications.*

   - *All transfer processes involving a free fall of soil or other particulate matter shall be operated in such a manner as to minimize the free-fall distance and fugitive dust emissions.*

   - *Apply approved chemical soil stabilizers to all inactive construction areas (previously graded areas that remain inactive for 96 hours), including unpaved roads and employee/equipment parking areas, according to the manufacturers' specifications.*

   - *To prevent track-out, wheel washers shall be installed where project vehicles and/or equipment exit onto paved streets from unpaved roads. Vehicles and/or equipment shall be washed before each trip. Alternatively, a gravel bed or rumble strip may be installed as appropriate at vehicle/equipment site exit points to effectively remove soil buildup on tires and tracks to prevent/diminish track-out.*

   - *Paved streets shall be swept frequently (at least once per day by water sweeper with reclaimed water recommended; wet broom) if soil material has been carried onto adjacent paved, public thoroughfares from the project site.*

   - *Provide temporary traffic control as needed during all phases of construction to improve traffic flow, as deemed appropriate by the Sutter County Department of Public Works and/or Caltrans and to reduce vehicle dust emissions. An effective measure is to enforce vehicle traffic speeds at or below 15 miles per hour on unpaved roads.*

- *Reduce traffic speeds on all unpaved surfaces to 15 miles per hour, where feasible, and reduce unnecessary vehicle traffic by restricting access. Provide appropriate training, on-site enforcement, and signage. Where restricting vehicle speeds on unpaved surfaces to 15 miles per hour would make timely completion of the project infeasible, SAFCA shall cooperate with FRAQMD to implement alternative dust control measures that would be at least as effective in reducing fugitive dust emissions. Such measures may include increased frequency in applying water to the unpaved roads in the vicinity of sensitive receptors and reducing speeds in the vicinity of sensitive receptors.*

- *Reestablish ground cover on the construction site as soon as possible, through seeding and watering.*

- *Open burning is yet another source of fugitive gas and particulate emissions, and it shall be prohibited at the project site. No open burning of vegetative waste (natural plant growth wastes) or other legal or illegal burn materials (trash, demolition debris, etc.) may be conducted at the project site. Vegetative wastes should be chipped or delivered to waste to energy facilities (permitted biomass facilities), mulched, composted, or used for firewood. It is unlawful to haul waste materials off-site for disposal by open burning.*

2. *Construction equipment exhaust emissions shall not exceed FRAQMD Regulation III, Rule 3.0, Visible Emissions Limitations (40% opacity or Ringelmann 2.0). Operators of vehicles and equipment found to exceed opacity limits shall take action to repair the equipment within 72 hours or remove the equipment from service. Failure to comply may result in a notice of violation.*

3. *SAFCA shall be responsible for ensuring that all construction equipment is properly tuned and maintained before and during on-site operation.*

4. *Minimize idling time to 10 minutes, to conserve fuel and minimize emissions.*

5. *Use existing power sources (e.g., power poles) or clean fuel generators rather than temporary diesel-powered generators.*

6. *Portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, may require California Air Resources Board (ARB) Portable Equipment Registration with the state or a local district permit. The owner/operator shall be responsible for arranging appropriate consultations with ARB or FRAQMD to determine registration and permitting requirements before equipment is operated at the site.*

7. *SAFCA shall assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, and emission rates) of all heavy-duty off-road (portable and mobile) equipment (50 horsepower [hp] and greater) that will be used an aggregate of 40 or more hours for the construction project and apply the following mitigation measure:*

    - *Reduce $NO_X$ emissions from off-road diesel-powered equipment: SAFCA shall provide a plan for approval by FRAQMD demonstrating that the heavy-duty (equal to or greater*

*than 50 hp) off-road equipment to be used in the construction project, including owned, leased and subcontractor vehicles, shall achieve a project wide fleet-average 20% $NO_X$ reduction and 45% particulate reduction[2] compared to the most recent ARB fleet average at time of construction.*

*Implementing the FRAQMD-recommended measures is expected to achieve at least a 75% reduction in fugitive dust emissions, 5% reduction in ROG emissions from construction equipment, 20% reduction in $NO_X$ emissions from construction equipment, and 45% reduction in $PM_{10}$ emissions from construction equipment (SMAQMD 2004). The resulting maximum average daily construction-generated emissions in Sutter County, with mitigation incorporated, are conservatively calculated to be as high as 75 lb/day of ROG, 413 lb/day of $NO_X$, and 971 lb/day of $PM_{10}$.*

*SAFCA shall implement the following measure to further mitigate $NO_X$ emissions through off-site reductions:*

8. *SAFCA shall enter into a voluntary emissions reduction agreement with the FRAQMD to mitigate the portion of construction-generated emissions of $NO_X$ that exceeds FRAQMD's emission threshold of 25 lb/day. The calculation of the fee shall be determined in coordination with the FRAQMD and paid prior to the occurrence of any construction-related activities within areas under the jurisdiction of the FRAQMD.*

***Construction in Sacramento County (SMAQMD)***

*For portions of the project occurring in Sacramento County, SMAQMD's Guide to Air Quality Assessment in Sacramento County (SMAQMD 2004) provides mitigation measures for reducing short-term air quality impacts. As recommended by SMAQMD, SAFCA shall ensure that the following mitigation measures are implemented during all project construction activities to the extent practicable and feasible.*

- *SAFCA shall prepare a construction emissions dust control plan(s) in accordance with SMAQMD recommendations that reduces fugitive dust emissions by at least 85% (or shall provide calculations based on SMAQMD-approved methodologies showing that emissions would be reduced to less than 100 tons per year assuming a conservative reduction of 75% with typical mitigation). All grading operations shall be suspended when fugitive dust levels exceed levels specified by SMAQMD rules. SAFCA and its primary construction contractors shall ensure that dust is not causing a nuisance beyond the property line of the construction site.*

[2] Acceptable options for reducing emissions may include use of late-model engines, low-emission diesel products, alternative fuels, engine retrofit technology (Carl Moyer Guidelines), and after-treatment products; voluntary off-site mitigation project; providing funds for air district off-site mitigation projects; and/or other options as they become available. FRAQMD should be contacted to discuss alternative measures.

- *If overlapping construction phases in Sacramento County create unmitigated $PM_{10}$ emissions in excess of 400 TPY SAFCA shall use advanced dust suppressant materials (such as EnviroTac II) on all unpaved roadways and stockpiled materials to ensure 95% or greater control of fugitive dust and a reduction of $PM_{10}$ emissions below 100 TPY. Overlapping Phases where this would apply includes all work on the Sacramento River east level for the Phase 3 and 4a Projects.*

- *SAFCA shall develop a plan, in consultation with SMAQMD, demonstrating that the heavy-duty (>50 hp), off-road vehicles to be used in the construction project (including owned, leased, and subcontractor vehicles) shall achieve a project-wide fleet-average 20% $NO_X$ reduction and 45% particulate reduction compared to the most recent ARB fleet average at the time of construction.*[3]

- *A comprehensive inventory of all off-road construction equipment equal to or greater than 50 hp that will be used for an aggregate of 40 or more hours during any portion of project construction shall be submitted to SMAQMD. 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 operations occur. At least 48 hours before heavy-duty off-road equipment is used, SAFCA shall provide SMAQMD with the anticipated construction timeline, including the start date, and the name and phone number of the contractor's project manager and on-site foreman.*

- *Emissions from off-road, diesel-powered equipment used on the project site shall not exceed 40% opacity for more than 3 minutes in any 1 hour. Any equipment found to exceed 40% opacity (or Ringelmann 2.0) shall be repaired immediately, and SMAQMD shall be notified of noncompliant equipment within 48 hours of identification. A visual survey of all in-operation equipment shall be made at least weekly. A monthly summary of visual survey results shall be submitted to SMAQMD throughout the construction period, except that the monthly summary shall not be required for any 30-day period in which no construction operations occur. The monthly summary shall include the quantity and type of vehicles surveyed, as well as the dates of each survey. SMAQMD and/or other officials may conduct periodic site inspections to determine compliance.*

- *SAFCA shall pay SMAQMD an off-site mitigation fee for implementation of any proposed alternatives for the purpose of reducing impacts to a less-than-significant level. Based on the construction information presented in Chapter 2.0, "Alternatives" and the emissions calculations shown in Appendix F of the DEIS/DEIR, the specific fee amount to offset $NO_X$ emissions for elements of the 2010 construction phase that would occur in Sacramento County would be $737,248 (see Appendix F for fee calculations) plus a 5% administrative fee of $36,862. Thus, the total mitigation fee for project-related work conducted in Sacramento County during the 2010 construction season is currently estimated to be $774,110. Calculation of fees associated with subsequent improvement plans/project phases shall be conducted at the time of project approval. The applicable fee rate shall be*

[3] Acceptable options for reducing emissions include the use of late-model engines, low-emission diesel products, alternative fuels, particulate-matter traps, engine retrofit technology, after-treatment products, and/or such other options as become available.

*determined and the total fee shall be calculated based on the fee rate in effect at the time that subsequent environmental documents are prepared. The fee for subsequent construction projects shall be remitted to SMAQMD before groundbreaking.*

*SAFCA shall pay into SMAQMD's off-site construction mitigation fund to further mitigate construction-generated emissions of $NO_X$ that exceed SMAQMD's daily emission threshold of 85 lb/day. The calculation of daily $NO_X$ emissions is based on the cost to reduce 1 ton of $NO_X$ at the time when the document is prepared (currently $16,000 per ton). The determination of the final mitigation fee shall be conducted in coordination with SMAQMD before any demolition or ground disturbance occurs for any project phase.*

*Calculation of and payment of the fee for all subsequent project phases shall also be included in the CEQA MMRP for the project.*

*Implementing the SMAQMD-recommended measures is expected to achieve at least a 75–85% reduction in fugitive dust emissions, 5% reduction in ROG emissions from construction equipment, 20% reduction in $NO_X$ emissions from construction equipment, and 45% reduction in $PM_{10}$ emissions from construction equipment (SMAQMD 2004). The resulting maximum average daily construction-generated emissions with mitigation incorporated are shown in Table 4.11-1 of the DEIS/DEIR.*

***All Project Construction***

*SAFCA shall implement the following additional measures to reduce construction emissions of $PM_{10}$ comprising fugitive dust and mobile-exhaust and ozone precursors throughout the project area:*

- *Open burning of removed vegetation shall be prohibited. Vegetation material shall be chipped on-site or delivered to waste-to-energy facilities to the extent feasible.*

- *An operational water truck shall be on-site at all times. Water shall be applied to control dust as needed to prevent dust impacts off-site. Unpaved areas subject to vehicle traffic, including employee parking areas and equipment staging areas, shall be stabilized by being kept wet, treated with a chemical dust suppressant or soil binders, or covered.*

- *The track-out of bulk material onto public paved roadways as a result of operations, or erosion, shall be minimized by the use of track-out and erosion control, minimization, and preventive measures, and removed within 1 hour from adjacent streets such material anytime track-out extends for a cumulative distance of greater than 50 feet onto any paved public road during active operations. All visible roadway dust tracked out upon public paved roadways as a result of active operations shall be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations. Wet sweeping or a HEPA filter equipped vacuum device shall be used for roadway dust removal.*

- *Low-sulfur fuel shall be used for stationary construction equipment.*

- *Existing power sources or clean fuel generators shall be used rather than temporary power generators to the extent feasible.*

- *Low-emission on-site stationary equipment shall be used.*

- *Vehicle speeds on unpaved roadways shall be limited to 15 miles per hour.*

- *Idling time for all heavy-duty equipment shall be limited to 5 minutes.*

- *Install ARB-certified Level 3 diesel particulate filters (DPF) on a minimum of 15% of the total number of off-road (non-street legal) diesel-powered construction equipment pieces with an engine size equal to or greater than 50 hp throughout the duration of the project. For fleets with 6 or fewer total applicable equipment pieces, a DPF shall be installed on a minimum of one engine. All DPFs shall be kept in working order and maintained in operable condition according to manufacturer's specifications. At the time of writing, a list of ARB-certified Level 3 DPF can be found at http://www.arb.ca.gov/diesel/verdev/level3/level3.htm.*

- *Install Level 3 ARB-certified DPF that are functional and kept in working order to meet manufacturer's specifications throughout the duration of the project on at least 15% of the total pieces of off-road (non-street legal) construction equipment on the project site over 50 hp (a minimum of one diesel particulate filter for fleets with 6 or less total pieces).*

*SMAQMD has also recently released since publication of the DEIS/DEIR, draft BMPs for consideration as practical alternatives to reduce construction-generated greenhouse gas (GHG) emissions. SAFCA shall implement a range of measures to reduce GHG emissions, which may include the following:*

- *improve fuel efficiency from construction equipment by reducing unnecessary idling (modify work practices, install auxiliary power for driver comfort); performing equipment maintenance (inspections, detect failures early, corrections); training equipment operators in proper use of equipment; using the proper size of equipment for the job; and using equipment with new technologies (repowered engines, electric drive trains);*

- *use alternative fuels for generators at construction sites such as propane or solar, or use electrical power;*

- *encourage and provide carpools, shuttle vans, transit passes, and/or secure bicycle parking for construction worker commutes;*

- *reduce electricity use in the construction office by using compact fluorescent bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones;*

- *recycle or salvage non-hazardous construction and demolition debris (goal of at least 75% by weight);*

- *use locally sourced or recycled materials for construction materials (goal of at least 20% based on costs for building materials, and based on volume for roadway, parking lot, and sidewalk and curb materials); and*

- *develop a plan to efficiently use water for adequate dust control.*

L. Impact 4.12-a: Generation of Temporary, Short-Term Construction Noise

Construction of the Phase 4a Project levee and canal improvements, including construction of cutoff walls, groundwater wells, and pumping plant modifications conducted 24 hours per day, seven days per week ("24/7"), could result in temporary, short-term noise levels that exceed the applicable daytime and nighttime standards for non-transportation sources, resulting in increased annoyance and/or sleep disruption to occupants of residential buildings and other sensitive receptors. This impact would be significant. Implementation of Mitigation Measure 4.12-a, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact, but not to a less-than-significant level, especially during nighttime hours. Sensitive receptors live in close proximity to the construction sites, and mitigation cannot feasibly reduce all noise impacts to less-than-significant levels. Therefore, this temporary, short-term impact would remain significant and unavoidable.

**Mitigation Measure 4.12-a**: **Implement Noise-Reducing Construction Practices, Prepare a Noise Control Plan, and Monitor and Record Construction Noise Near Sensitive Receptors**

*SAFCA and its primary contractors for engineering design and construction shall ensure that the following measures are implemented at each work site in any year of project construction to avoid and minimize construction noise effects on sensitive receptors. These measures are consistent with SAFCA's standard contract specifications for noise control.*

***All Project Construction***

*The primary construction contractors shall employ noise-reducing construction practices. Measures that shall be used to limit noise shall include the measures listed below:*

- *Equipment shall be used as far away as practical from noise-sensitive uses.*

- *All construction equipment shall be equipped with noise-reduction devices such as mufflers to minimize construction noise and all internal combustion engines shall be equipped with exhaust and intake silencers in accordance with manufacturers' specifications.*

- *Equipment that is quieter than standard equipment shall be used, including electrically powered equipment instead of internal combustion equipment where use of such equipment is a readily available substitute that accomplishes project tasks in the same manner as internal combustion equipment.*

- *Construction site and haul road speed limits shall be established and enforced.*
- *The use of bells, whistles, alarms, and horns shall be restricted to safety warning purposes only.*
- *Noise-reducing enclosures shall be used around stationary noise-generating equipment (e.g., compressors and generators).*
- *Fixed construction equipment (e.g., compressors and generators), construction staging and stockpiling areas, and construction vehicle routes shall be located at the most distant point feasible from noise-sensitive receptors.*
- *When noise sensitive uses are within close proximity and subject to prolonged construction noise, noise-attenuating buffers such as structures, truck trailers, or soil piles shall be located between noise generation sources and sensitive receptors.*
- *Before construction activity begins within 500 feet of one or more residences or businesses, written notification shall be provided to the potentially affected residents or business owners, identifying the type, duration, and frequency of construction activities. Notification materials shall also identify a mechanism for residents or business owners to register complaints with the appropriate jurisdiction if construction noise levels are overly intrusive. The distance of 500 feet is based on the 60-dBA contour of the loudest anticipated construction activity.*
- *If noise-generating activities are conducted within 100 feet of noise-sensitive receptors (the 70-dBA noise contour of construction noise), the primary contractor shall continuously measure and record noise levels generated as a result of the proposed work activities. Sound monitoring equipment shall be calibrated before taking measurements and shall have a resolution within 2 dBA. Monitoring shall take place at each activity operation adjacent to sensitive receptors. The recorded noise monitoring results shall be furnished weekly to SAFCA.*
- *The primary contractor shall prepare and implement a detailed noise control plan based on the proposed construction methods. This plan shall identify specific measures to ensure compliance with the noise control measures specified above. The noise control plan shall be submitted to and approved by SAFCA before any noise-generating construction activity begins.*

***24/7 Project Construction***

*In addition to the noise-reducing measures listed above, SAFCA shall implement the following measures concerning 24/7 project construction:*

- *When construction of cutoff walls takes place during nighttime hours (between 10:00 p.m. and 6:00 a.m.), SAFCA shall honor requests from affected residents to provide reasonable reimbursement of local hotel or short-term rental stays for the period of time that cutoff wall construction takes place within 500 feet of the residents requesting reimbursement.*
- *When construction of groundwater wells (including up to two weeks of continuous pump testing for each well) or modifications to Pumping Plant Nos. 3 and 5 takes place during*

*nighttime hours (between 10:00 p.m. and 6:00 a.m.) and the resulting noise levels exceed the applicable County noise standard (i.e., 45 dBA $L_{eq}$ and 65 dBA $L_{max}$ for Sutter County and 45 dBA $L_{50}$ and 65 dBA $L_{max}$ for Sacramento County), SAFCA shall honor requests from affected residents to provide reasonable reimbursement of local hotel or short-term rental stays for the period of time that construction of groundwater wells or modifications to Pumping Plant Nos. 3 and 5 takes place within 500 feet of the residents requesting reimbursement.*

M. Impact 4.12-c: Temporary, Short-term Exposure of Residents to Increased Traffic Noise Levels from Truck Hauling Associated with Borrow Activity

Phase 4a Project construction would generate high volumes of haul truck trips on area roads, temporarily causing noise levels to exceed exterior noise standards at residential land uses and potentially resulting in temporary sleep disturbance at nearby residences. This impact would be potentially significant. Implementation of Mitigation Measure 4.12-c, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact, but not to a less-than-significant level. The mitigated noise levels could still exceed local exterior noise standards for residential land uses. Therefore, this impact would remain potentially significant and unavoidable.

**Mitigation Measure 4.12-c**: **Implement Noise-Reduction Measures to Reduce the Temporary, Short-term Impacts of Haul Truck Traffic Noise**

*SAFCA and its primary contractors for engineering design and construction shall ensure that the measures listed below are implemented at each work site in any year of project construction to minimize temporary, short-term construction traffic noise effects on sensitive receptors.*

- *All heavy trucks shall be equipped with noise control (e.g., muffler) devices in accordance with manufacturers' specifications.*
- *All haul trucks shall be inspected before use and a minimum of once per year to ensure proper maintenance and presence of noise-control devices (e.g., lubrication, nonleaking mufflers, and shrouding).*
- *Before haul truck trips are initiated during a construction season on roads within 160 feet of residences (the 60-dBA noise contour of haul truck traffic), written notification shall be provided to the potentially affected residents identifying the hours and frequency of haul truck trips. Notification materials shall also identify a mechanism for residents to register complaints with the appropriate jurisdiction if haul truck noise levels are overly intrusive or occur outside the exempt daytime hours for the applicable jurisdiction.*

N. Impact 4.13-a: Alteration of Scenic Vistas, Scenic Resources, and Existing Visual Character of the Project Area

The Phase 4a Project would require the temporary use of construction equipment which would temporarily degrade the visual character of some parts of the project area. Additionally, the removal of trees and the conversion of some grassland to woodlands would alter the existing

visual character of parts of the project area. This impact would be significant. Because there is no feasible mitigation available, this impact would remain significant and unavoidable.

O. Impact 4.13-b: New Sources of Light and Glare that Adversely Affect Views

The introduction of new light and glare, associated primarily with Phase 4a Project nighttime construction of cutoff walls on the Sacramento River east levee, well construction activities, and pumping plant modifications, would be a temporary but significant impact. Implementation of Mitigation Measure 4.13-b, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact, but not to a less-than-significant level. Mitigation Measure 4.15-f is set forth in full in the discussion of Impact 4.15-f, below. Light and glare could still adversely affect nearby residences. Therefore, this impact would remain significant and unavoidable.

**Mitigation Measure 4.13-b**: **Implement Mitigation Measure 4.15-f, "Coordinate Work in the Critical Zone with Airport Operations and Restrict Night Lighting within and near the Runway Approaches," and Direct Lighting Away from Adjacent Properties**

*SAFCA shall implement Mitigation Measure 4.15-f, "Coordinate Work in the Critical Zone with Airport Operations and Restrict Night Lighting within and near the Runway Approaches," contained in Section 4.15, "Hazards and Hazardous Materials." In summary, this mitigation requires that no borrow activities shall be conducted within the Airport Critical Zone during nighttime hours; and, that all project-related nighttime lighting that is in, or is aligned with, the Airport runway approach zone shall be directed downward to avoid potential interference within nighttime aircraft operations. As discussed in Section 4.15, "Hazards and Hazardous Materials," implementation of Mitigation Measure 4.15-f would reduce lighting impacts associated with the Airport to a less-than-significant level.*

*Additionally, SAFCA shall implement the following measures to reduce the impacts of light and glare associated with project construction activities:*

*(a) SAFCA shall require that nearby residents be notified in advance of nighttime construction activities.*

*(b) SAFCA shall require that construction and security lighting be shielded and directed downward to minimize the spill of light onto adjacent properties.*

## III. SIGNIFICANT ADVERSE IMPACTS IDENTIFIED IN THE DEIS/DEIR THAT ARE REDUCED TO A LESS-THAN-SIGNIFICANT LEVEL BY MITIGATION MEASURES INCORPORATED INTO THE PHASE 4A PROJECT

The FEIR identifies the following significant impacts associated with the Phase 4a Project. These impacts are reduced to a less-than-significant level by mitigation measures identified in the FEIR and incorporated into the Phase 4a Project. It is hereby determined that the impacts addressed by these mitigation measures will be mitigated to a less-than-significant level or avoided by incorporation of these mitigation measures into the project. To the extent that these mitigation measures will not mitigate or avoid all significant effects on the environment, it is hereby determined that any remaining significant and unavoidable adverse impacts are acceptable for the reasons specified in Section VI, below.

A. Impact 4.3-b: Inconsistency with the Natomas Basin Habitat Conservation Plan

The Phase 4a Project could encroach onto TNBC reserves, and the potential for the project to threaten the viability of populations of certain covered species, reduce the effectiveness of the NBHCP's conservation strategy, and adversely affect attainment of the goals and objectives of the NBHCP, could jeopardize successful implementation of the NBHCP. Therefore, the Phase 4a Project would be potentially inconsistent with the NBHCP. Implementation of Mitigation Measure 4.3-b, summarized below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact, but not to a less-than-significant level. Mitigation Measure 4.7-a is set forth in the discussion of Impact 4.7-a, above, and Mitigation Measures 4.7-c, -e, -g, -h, and –k are set forth in the discussions of Impacts 4.7-c, -e, -g, -h and –k, below.

**Mitigation Measure 4.3-b**: **Implement Mitigation measure 4.7-k, "Ensure that Project Encroachment Does Not Jeopardize Successful Implementation of the NBHCP and Implement Mitigation Measures 4.7-a, 4.7-c, and 4.7-e through 4.7-h"**

*SAFCA shall implement Mitigation Measure 4.7-k, "Ensure that Project Encroachment Does Not Jeopardize Successful Implementation of the NBHCP and Implementation Mitigation Measures 4.7-a, 4.7-c, and 4.7-e through 4.7-h."In summary, this mitigation measure requires SAFCA to coordinate with TNBC, USFWS, and DFG to identify and implement actions to ensure that the project's small encroachment onto TNBC reserves does not jeopardize successful implementation of the NBHCP.*

B. Impact 4.4-a: Potential Temporary and Permanent Localized Soil Erosion during Construction and Operation

Phase 4a Project borrow activities and levee improvement activities would result in the temporary disturbance of soil and could expose disturbed areas to erosion due to wind or early-season rainfall events. Wind or rainfall of sufficient intensity could dislodge soil particles from the soil surface. Once particles are dislodged, substantial localized erosion could occur. The potential for substantial erosion or loss of topsoil during construction of the Phase 4a Project is considered a potentially significant impact. Implementation of Mitigation Measures 4.4-a(1) and 4.4-a(2), set forth below, which are hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level. Mitigation Measure 4.6-a is set forth in full in the discussion of Impact 4.6-a, below.

**Mitigation Measure 4.4-a(1)**: **Implement Mitigation Measure 4.6-a, "Implement Standard Best Management Practices, Prepare and Implement a Stormwater Pollution Prevention Plan, and Comply with National Pollutant Discharge Elimination System Permit Conditions"**

*SAFCA shall implement Mitigation Measure 4.6-a, "Implement Standard Best Management Practices, Prepare and Implement a Stormwater Pollution Prevention Plan, and Comply with National Pollutant Discharge Elimination System Permit Conditions," contained in Section 4.6, "Water Quality." SAFCA's final design and construction specifications for all project components, including borrow sites, shall include implementation of standard erosion, siltation, and soil stabilization Best Management Practices (BMPs). This mitigation measure requires filing a Notice of Intent (NOI) with the Central Valley Regional Water Quality Control Board (RWQCB); implementing standard erosion, siltation, and BMP measures; preparing and implementing a Stormwater Pollution Prevention Plan (SWPPP); and complying with the conditions of the National Pollutant Discharge Elimination System (NPDES) general stormwater permit for construction activity.*

**Mitigation Measure 4.4-a(2)**: **Secure and Implement the Conditions of the California Surface Mining and Reclamation Act Permit or Exemption**

*In the event that any borrow site activity is determined to be subject to the California Surface Mining and Reclamation Act (SMARA), SAFCA shall secure and implement the conditions contained in the SMARA permit or exemption as administered and issued by the local agency (applicable county).*

C. Impact 4.5-b: Alteration of Local Drainage

The Phase 4a Project would temporarily or even potentially permanently alter the existing drainage pattern of the project area; therefore, localized flooding could occur, resulting in a potentially significant impact. Implementation of Mitigation Measure 4.5-b, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level.

**Mitigation Measure 4.5-b**: **Coordinate with Landowners and Drainage Infrastructure Operators, Prepare Final Drainage Studies as Needed, and Implement Proper Project Design**

*During project design, SAFCA's project engineers shall coordinate with owners and operators of local drainage systems and landowners served by the systems. This coordination shall enable the project engineers to evaluate the preproject and postproject drainage needs and the design features to consider in project design any project-related substantial drainage disruption or alteration in runoff that would increase the potential for local flooding. If substantial alteration of runoff patterns or disruption of a local drainage system could result from a project feature, a final drainage study shall be prepared and implemented as part of project design. The study shall consider the design flows of any existing facilities that would be crossed by project features and shall develop appropriate plans for relocation or other modification of these facilities and construction of new facilities, as needed, to ensure that the altered systems provide drainage*

*services during and after construction that are equivalent to the drainage services that were provided prior to construction. If no drainage facilities (e.g., ditches, canals) would be affected, but project features would have a substantial adverse impact on runoff amounts and/or patterns, then new drainage systems shall be included in the design of project improvements to ensure that the project would not result in new or increased local flooding. Any necessary features to remediate project-induced drainage problems shall be constructed before the project is completed or as part of the project, depending on site-specific conditions. Any additional coordination with landowners and drainage infrastructure operators related to future selection of borrow sites in the Fisherman's Lake Area shall be completed by SAFCA before commencement of any earth-moving activities.*

D. Impact 4.6-a: Temporary Impacts on Water Quality from Stormwater Runoff, Erosion, or Spills

Phase 4a Project construction would include extensive ground-disturbing activities near local drainages and waterways that could become contaminated by soil or construction substances. Water quality could also be degraded if slurry is mishandled or if excavated areas fill with water during construction and require dewatering. The potential for release of soil or construction-related materials into the NCC, West Drainage Canal, local drainages, and ultimately the Sacramento River could adversely affect water quality. This temporary construction-related impact is considered potentially significant. Implementation of Mitigation Measure 4.6-a, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level.

**Mitigation Measure 4.6-a**: **Implement Standard Best Management Practices, Prepare and Implement a Stormwater Pollution Prevention Plan, and Comply with National Pollutant Discharge Elimination System Permit Conditions**

*SAFCA shall file a Notice of Intent (NOI) to discharge stormwater associated with construction activity with the Central Valley RWQCB. Final design and construction specifications shall require the implementation of standard erosion, siltation, and good housekeeping Best Management Practices (BMPs). Construction contractors shall be required to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) and comply with the conditions of the National Pollutant Discharge Elimination System (NPDES) general stormwater permit for construction activity. The SWPPP shall describe the construction activities to be conducted, BMPs that will be implemented to prevent discharges of contaminated stormwater into waterways, and inspection and monitoring activities that shall be conducted.*

*The SWPPP shall include the following:*

- *pollution prevention measures (erosion and sediment control measures and measures to control nonstormwater discharges and hazardous spills),*
- *demonstration of compliance with all applicable Central Valley RWQCB standards and other applicable water quality standards,*
- *demonstration of compliance with regional and local standards for erosion and sediment control,*

- *identification of responsible parties,*
- *detailed construction timelines, and*
- *a BMP monitoring and maintenance schedule.*

*BMPs shall include the following:*

- *conduct all work according to site-specific construction plans that identify areas for clearing, grading, and revegetation so that ground disturbance is minimized;*
- *install silt fences near riparian areas or streams to control erosion and trap sediment, and reseed cleared areas with native vegetation;*
- *stabilize disturbed soils of the new or raised levees, existing levee removal areas, and borrow sites before the onset of the winter rainfall season; and*
- *stabilize and protect stockpiles from exposure to rain and potential erosion.*

*The SWPPP also shall specify appropriate hazardous materials handling, storage, and spill response practices to reduce the possibility of adverse impacts from use or accidental spills or releases of contaminants. Specific measures applicable to the project include, but are not limited to, the following:*

- *develop and implement strict on-site handling rules to keep potentially contaminating construction and maintenance materials out of drainages and other waterways;*
- *conduct all refueling and servicing of equipment with absorbent material or drip pans underneath to contain spilled fuel, and collect any fluid drained from machinery during servicing in leak-proof containers and deliver to an appropriate disposal or recycling facility;*
- *maintain controlled construction staging and fueling areas at least 100 feet away from channels or wetlands to minimize accidental spills and runoff of contaminants in stormwater;*
- *prevent substances that could be hazardous to aquatic life from contaminating the soil or entering watercourses;*
- *maintain spill cleanup equipment in proper working condition. Clean up all spills immediately according to the spill prevention and response plan;*
- *develop a slurry spill contingency plan to respond to a potential for bentonite slurry spill and prevent slurry from entering the Sacramento River or NCC; and*
- *immediately notify the California Department of Fish and Game (DFG) and the Central Valley RWQCB of any spills and cleanup procedures.*

*BMPs shall be applied to meet the "maximum extent practicable" and "best conventional technology/best available technology" requirements and to address compliance with water quality standards. A monitoring program shall be implemented during and after construction to ensure that the project is in compliance with all applicable standards and that the BMPs are effective.*

Several technical studies have been conducted regarding water-quality control feature impacts on groundwater (e.g., California Stormwater Best Management Practices Handbooks prepared by the California Stormwater Quality Association [DWR 2007]) and surface water (e.g., Truckee

River Basin Stormwater Management Program-Program Years 2007–2012 [Lahontan Regional Water Quality Control Board 2007]). These studies have determined that water-quality control features such as revegetation, erosion control measures, and detention and infiltration basins have been successful in avoiding water quality impacts (e.g., metals and organic compounds associated with stormwater are typically lost within the first few feet of the soil of the retention basins associated with groundwater). Technical studies associated with the Lahontan Development (residential and golf course development) demonstrated that the use of a variety of BMPs (e.g., source control, detention basins, revegetation, and erosion control) have been able to maintain surface water quality conditions in adjacent receiving waters (Martis Creek).

E. Impact 4.6-b: Impacts to Sacramento River Water Quality from Stormwater Runoff from Garden Highway Drainage Outlets

Implementation of the Phase 4a Project would involve construction of a new drainage system along Garden Highway in Reaches 10-11B of the Sacramento River to collect surface water from the drainage area between the existing highway and the new adjacent levee and convey it beneath Garden Highway to the Sacramento River. Without treatment, stormwater runoff from Garden Highway could degrade the water quality of the Sacramento River. This impact would be significant. Implementation of Mitigation Measure 4.6-b, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level.

**Mitigation Measure 4.6-b**: **Implement Standard Best Management Practices and Comply with NPDES Permit Conditions**

*SAFCA and its contractors for construction shall implement a suite of stormwater quality BMPs designed to remove contaminants from water discharging through the Garden Highway outlets. These BMPs shall be based on the strategies for effectively integrating stormwater quality management into project design described in Stormwater Quality Design Manual for Sacramento and South Placer Regions (May 2007). Treatment control measures such as vegetated swales and vegetated filter strips shall be used, depending upon the design requirements of the levee. BMPs shall meet "maximum extent practicable" and "best conventional technology/best available technology" requirements, and comply with NPDES permit conditions.*

F. Impact 4.6-c: Effects on Water Quality from Groundwater Discharged by Relief Wells

Relief wells used for seepage remediation in the Phase 4a Project would release groundwater into drainage canals. Groundwater may exceed contaminant levels under the water quality objectives of the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins* (Basin Plan). Because the release of untreated groundwater into these waters could adversely affect river water quality, this impact would be potentially significant. Implementation of Mitigation Measure 4.6-c, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level.

**Mitigation Measure 4.6-c**: **Conduct Groundwater Quality Tests, Notify the Central Valley RWQCB, and Comply with the RWQCB's Waste Discharge Authorization and NPDES Permit.**

*SAFCA, in coordination with RD 1000, shall ensure that groundwater in the vicinity of potential relief well locations is tested during project design and before well construction, to ensure that discharge of extracted groundwater does not exceed maximum contaminant levels specified in Title 22. SAFCA shall provide the Central Valley RWQCB with the results of these water quality tests and a conceptual plan for how the relief wells will be used (e.g., extracting and discharging groundwater), and shall comply with any waste discharge requirements and the NPDES permit issued by the Central Valley RWQCB.*

G. Impact 4.7-b: Impacts on Wildlife Corridors

The Phase 4a Project could involve adverse impacts on critical corridors for movement of aquatic species, and impacts on valuable nesting and rearing habitat for a variety of bird species. To offset impacts on movement corridors for aquatic species, new canal and managed marsh habitat will be created and managed in a manner that provides the essential functions of habitat that would be lost. If this objective is not achieved, project impacts on aquatic movement corridors would be considered significant. To offset impacts on nesting and rearing habitat, new woodland would be planted, resulting in a net increase in landside woodland habitat. Nevertheless, because of the time required for the woodland plantings to mature, this impact would be potentially significant. Implementation of Mitigation Measure 4.7-b, summarized below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce these impacts to a less-than-significant level. Mitigation Measure 4.7-a is set forth in full in the discussion of Impact 4.7-a, above, and Mitigation Measure 4.7-e is set forth in full in the discussion of Impact 4.7-e, below.

**Mitigation Measure 4.7-b: Implement Mitigation Measure 4.7-a, "Minimize Effects on Woodland Habitat; Implement all Woodland Habitat Improvements and Management Agreements; Compensate for Loss of Habitat; and Comply with Section 7 of the Federal Endangered Species Act, Section 1602 of the California Fish and Game Code, and Section 2081 of the California Endangered Species Act Permit Conditions," and Mitigation Measure 4.7-e, "Minimize the Potential for Direct Loss of Giant Garter Snake Individuals, Implement all Upland and Aquatic Habitat Improvements and Management Agreements to Ensure Adequate Compensation for Loss of Habitat, and Obtain Incidental Take Authorization"**

*SAFCA will implement Mitigation Measure 4.7-a, set forth in full in the discussion of Impact 4.7-a, above, and Mitigation Measure 4.7-e, set forth in full in the discussion of Impact 4.7-e, below.*

H. Impact 4.7-c: Impacts on Jurisdictional Waters of the United States

The Phase 4a Project would result in temporary and permanent impacts, including fill, to waters of the United States, including wetlands. An overall adverse impact on waters of the United States could occur if the creation and management of substitute aquatic habitat is not properly implemented. This impact would be potentially significant. Implementation of

Mitigation Measure 4.7-c, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level, and would create a beneficial impact by creating more extensive waters of the United States than those filled by the Phase 4a Project.

**Mitigation Measure 4.7-c**: **Minimize Effects on Jurisdictional Waters of the United States; Complete Detailed Design of Habitat Creation Components and Secure Management Agreements to Ensure Compensation of Waters Filled; and Comply with Section 404, Section 401, Section 10, and Section 1602 Permit Processes**

*SAFCA shall implement the measures described below to reduce impacts related to loss or fill of jurisdictional waters of the United States.*

- *Waters of the United States, including wetlands, shall be identified and the primary engineering and construction contractors shall ensure, through coordination with a qualified biologist(s), that construction is implemented in a manner that minimizes disturbance of canals, ditches, and seasonal wetlands. Temporary fencing shall be used during construction to prevent disturbance of waters of the United States that are located adjacent to construction areas but can be avoided.*

  *To mitigate for permanent impacts to sensitive aquatic resources, at least 1 acre of aquatic habitat (irrigation/drainage canal) or 1 acre of seasonal wetland shall be created for every acre that is lost to ensure no net loss of sensitive aquatic habitat. The mitigation ratio that is ultimately required will be determined by USACE through the Section 404 permitting process. Features planned in the Phase 4a Project (under both action alternatives), would provide aquatic habitat that has been designed to offset the effects described above. These features include the creation of aquatic habitat resulting from construction of the relocated Riverside Canal and creation of managed marsh in the vicinity of Fisherman's Lake, much of which would meet the criteria for Waters of the United States, including wetlands.*

- *Develop and implement a Mitigation and Monitoring Plan and Long-Term Management Plan in coordination with and subject to approval of USACE, USFWS, and DFG. The MMP and LTMP shall provide complete detailed designs of habitat creation components, performance standards and management protocols. SAFCA shall also enter into agreements with entities responsible for long-term management of created canals and marsh habitats to ensure that performance standards and long-term management goals that are required by the regulatory agencies with jurisdiction over these resources will be met and specifically detailed and outlined in the LTMP and MMP. All performance standards and long-term management goals will be in full compliance with ESA and CESA.*

  *SAFCA shall secure all such agreements and implement all conditions of the agreements.*

- *Obtain the following applicable permits prior to the start of construction activities that would affect the resources covered by these permits: an individual permit pursuant to Section 404 of the CWA and Section 10 of the Rivers and Harbors Act from USACE, Section 401 certification from the Central Valley RWQCB, and a Section 1602 Streambed Alteration*

*Agreement from DFG. All requirements of these permitting processes shall be implemented by SAFCA.*

I. Impact 4.7-e: Impacts on Giant Garter Snake Related to Project Construction Activities and Operational Activities of Relocated or Modified Pumping Plants

Phase 4a Project construction and implementation would result in permanent and temporary loss and disturbance of potential giant garter snake habitat. Substitute habitat would be created; however, if habitat creation and management are not effectively implemented, this impact would be potentially significant. Implementation of Mitigation Measure 4.7-e, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level.

**Mitigation Measure 4.7-e**: **Minimize the Potential for Direct Loss of Giant Garter Snake Individuals, Implement All Upland and Aquatic Habitat Improvements and Management Agreements to Ensure Adequate Compensation for Loss of Habitat, and Obtain Incidental Take Authorization**

*To reduce impacts on the giant garter snake, SAFCA shall implement the measures described below.*

- *The engineering and design consultants and primary construction contractors shall ensure, through coordination with a qualified biologist retained by SAFCA, that construction is implemented in a manner that minimizes disturbance of giant garter snake habitat (e.g., temporary fencing shall be used during construction to protect all aquatic and adjacent upland habitat that is located adjacent to construction areas that can be avoided).*

- *Additional measures consistent with the goals and objectives of the NBHCP shall be implemented to minimize the potential for direct injury or mortality of individual giant garter snakes during project construction. Such measures shall be finalized in consultation with USFWS and DFG, and are likely to include conducting worker awareness training, timing initial ground disturbance to correspond with the snake's active season (as feasible in combination with project needs and minimizing disturbance of nesting Swainson's hawks), dewatering aquatic habitat before fill, conducting preconstruction surveys, erecting fencing around habitat features that can be avoided to ensure that these remain undisturbed by construction vehicles and personnel, conducting biological monitoring during construction, and removing any temporary fill or construction debris and restoring temporarily disturbed areas to their pre-project conditions according to the USFWS's Guidelines for the Restoration and/or Replacement of Giant Garter Snake Habitat (USFWS 1997).*

- *SAFCA shall coordinate with USFWS, DFG, and SCAS (if on Airport property) to ensure that the NLIP's aquatic and upland habitat improvements are created and managed. SAFCA shall prepare a project-specific MMP and programmatic LTMP to ensure the creation and long-term management of these components before construction commences. SAFCA shall enter into agreements with the appropriate local entity responsible for long-term management of these created giant garter snake habitats and shall coordinate with USFWS*

*and DFG to ensure that performance standards and long-term management goals required by the regulatory agencies with jurisdiction over these resources will be specifically detailed and outlined in the LTMP and MMP. All performance standards and long-term management goals will be in full compliance with ESA and CESA. SAFCA shall implement all terms and conditions of the management agreements.*

- *Where borrow sites would result in impacts to giant garter snake habitat over more than one construction season, the work shall progress in cells that will be incrementally developed as habitat or returned to agricultural use as the borrow activities are completed such that no area would be used in consecutive years or such that replacement habitat is available prior to loss of existing habitat.*

- *Authorization for take of giant garter snake under the ESA and CESA shall be obtained. All measures subsequently adopted through the permitting process shall be implemented.*

J. Impact 4.7-g: Impacts on Valley Elderberry Longhorn Beetle

The Phase 4a Project could require the removal of elderberry shrubs, the host plant of the valley elderberry longhorn beetle. The woodland creation plan would be designed to replace and protect the essential functions of valley elderberry longhorn beetle habitat. However, if habitat creation and management are not implemented effectively, this impact would be potentially significant. Implementation of Mitigation Measure 4.7-g, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level.

**Mitigation Measure 4.7-g: Conduct Focused Surveys for Elderberry Shrubs as Needed, Implement All Woodland Habitat Conservation Components and all Management Agreements, Ensure Adequate Compensation for Loss of Shrubs, and Obtain Incidental Take Authorization**

*To reduce impacts on valley elderberry longhorn beetle, SAFCA shall implement the measures described below.*

- *A qualified biologist retained by SAFCA shall conduct focused surveys of elderberry shrubs within 100 feet of the project footprint, in accordance with USFWS guidelines. All elderberry shrubs with potential to be affected by project activities shall be mapped, the number of stems greater than 1 inch in diameter on each shrub that requires removal shall be counted, and these stems shall be searched for beetle exit holes..*

- *The engineering and design consultants and primary construction contractors shall ensure, through coordination with the biologist, that construction is implemented in a manner that minimizes disturbance of areas that support elderberry shrubs (e.g., temporary fencing shall be used during construction to protect all elderberry shrubs that are located adjacent to construction areas but can be avoided). Shrubs that require removal shall be transplanted to the woodland creation areas, if feasible, when the plants are dormant (November through the first 2 weeks of February) to increase the success of transplanting. If none of the areas of*

*suitable habitat to be created as part of the project would be available before the impact would occur, alternative transplantation locations (e.g., other SAFCA mitigation areas or The Natomas Basin Conservancy [TNBC] preserves) shall be identified and shall be approved by USFWS.*

- *The number of replacement elderberry plantings shall be determined based on USFWS guidelines, which require replacement ratios ranging from 1:1 to 8:1 for lost stems at least 1 inch in diameter, depending on the size of the affected stems and presence or absence of beetle exit holes. Associated native species shall be planted at ratios ranging from 1:1 to 2:1 for each elderberry planting.*

- *SAFCA shall coordinate with USFWS, DFG, and SCAS (if on Airport property) to ensure that the NLIP's woodland habitat improvements are created and managed. SAFCA shall prepare a project-specific MMP and programmatic LTMP to ensure the creation and long-term management of these components before construction commences. SAFCA shall enter into agreements with the appropriate local entity responsible for long-term management of these created woodland habitats and shall coordinate with USFWS and DFG to ensure that performance standards and long-term management goals that are required by regulatory agencies with jurisdiction over these resources will be specifically detailed and outlined in the LTMP and MMP. All performance standards and long-term management goals will be in full compliance with the ESA and CESA. SAFCA shall implement all terms and conditions of the management agreements. USACE shall initiate consultation activities with USFWS under Section 7 of the ESA, and authorization for take of valley elderberry longhorn beetle under the ESA shall be obtained if it is determined, in consultation with USFWS, that shrub removal is likely to result in such take. All measures subsequently developed through the Section 7 consultation process shall be implemented by SAFCA.*

### K. Impact 4.7-h: Impacts on Other Special-Status Wildlife Species, Including Burrowing Owl and Northwestern Pond Turtle

Phase 4a Project construction and implementation could result in the destruction of burrows occupied by burrowing owls should they occur within the adjacent levee footprint, along the existing or relocated Riverside Canal, along the NCC, or within active borrow areas. There is potential for direct loss of burrowing owls to occur if they are present within the affected habitats. Proposed improvements to the Sacramento River east levee would result in the permanent loss of suitable pond turtle habitat due to fill and realignment of portions of irrigation/drainage canals near the landside tow of the levees. The potential for destruction of burrows occupied by burrowing owls and for the direct loss of northwestern pond turtles would be a potentially significant impact. Implementation of Mitigation Measure 4.7-h, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level.

**Mitigation Measure 4.7-h: Conduct Focused Surveys for Northwestern Pond Turtles, Relocate Turtles, Minimize Potential Impacts on Burrowing Owls, and Relocate Owls as Needed.**

*To reduce impacts on northwestern pond turtle and burrowing owl, SAFCA shall implement the measures described below.*

- *A qualified biologist retained by SAFCA shall conduct surveys for northwestern pond turtle in aquatic habitats to be dewatered and/or filled during project construction. Surveys shall be conducted immediately after dewatering and before fill of aquatic habitat suitable for pond turtles. If pond turtles are found, the biologist shall capture them and move them to nearby areas of suitable habitat that would not be disturbed by project.*

- *The engineering and design consultants and primary construction contractors shall ensure, through coordination with a qualified biologist retained by SAFCA, that construction is implemented in a manner that minimizes disturbance of potential nesting habitat for burrowing owls (e.g., removal of potential nesting habitat shall be conducted during the non-nesting season, to the extent feasible and practicable, to minimize the potential for loss of active nests).*

- *The biologist shall conduct preconstruction surveys to identify occupied burrowing owl burrows in the vicinity of construction areas. Surveys for burrowing owl shall be conducted before project activities are initiated at any time of year. Surveys shall be conducted in accordance with standardized protocols, including DFG's Staff Report on Burrowing Owl Mitigation (DFG 1995), and NBHCP requirements. If an occupied nest burrow is found, an appropriate buffer that minimizes potential for disturbance of the nest shall be determined by the biologist, in coordination with DFG. No project activities shall commence within the buffer area until a qualified biologist confirms that the nest is no longer active or the birds are not dependent on it. Monitoring shall be conducted by a qualified biologist to ensure that project activity does not result in detectable adverse effects on the nesting pair or their young. The size of the buffer may vary, depending on the nest location, nest stage, construction activity, and monitoring results. If implementation of the buffer becomes infeasible or construction activities result in an unanticipated nest disturbance, DFG shall be consulted to determine the appropriate course of action.*

- *If an occupied burrowing owl burrow that does not support an active nest is found, SAFCA shall develop and implement a relocation plan, in coordination with and subject to approval of DFG and USFWS and consistent with requirements of the NBHCP, DFG's Staff Report on Burrowing Owl Mitigation (DFG 1995), and the Airport Wildlife Hazard Management Plan (WHMP). Relocation is anticipated to occur through passive exclusion of owls from the project site (using one-way doors at the burrow entrances). The owls would then be able to reoccupy the area after construction is complete. Because the project would generally result in temporary disturbance of burrowing owl habitat and conversion from one suitable habitat type to another, no mitigation for temporary burrow or habitat loss would be required.*

### L. Impact 4.7-i: Temporary Construction-Related Impacts to Fish and Aquatic Habitats

Phase 4a Project construction activities, including rip rap placement, potential dredging, pile driving, cofferdam construction and dewatering, and general in-water construction, could cause direct disturbance to fish and their aquatic habitats due to sedimentation, increased turbidity, or the release and exposure of contaminants could adversely affect fish and aquatic habitats. Out-of-water construction activities could also occur at times of the year when there is potential for the presence of sensitive fish species/life stages in the Sacramento River during construction activities. This impact would be significant. Implementation of Mitigation Measure 4.7-i, summarized and set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level. Mitigation Measure 4.6-a is set forth in full in the discussion of Impact 4.6-a, above.

**Mitigation Measure 4.7-i**: **Implement Mitigation Measure 4.6-a, "Implement Standard Best Management Practices, Prepare and Implement a Stormwater Pollution Prevention Plan, Prepare and Implement a Spill Containment Plan, and Comply with National Pollutant Discharge Elimination System Permit Conditions," Implement a Feasible Construction Work Window that Minimizes Impacts to Special-Status Fish Species for Any In-Water Activities, and Implement Operational Controls and a Fish Rescue Plan that Minimizes Impacts to Fish Associated with Cofferdam Construction and Dewatering**

*SAFCA shall implement the following measures to reduce impacts to fish and aquatic habitats related to temporary, short-term construction-related increases in sediments and turbidity and release of contaminants as well as direct disturbance to a less than significant level. These measures shall be included in construction specifications along with any additional measures identified in necessary permits.*

- *SAFCA shall implement Mitigation Measure 4.6-a, as described in Section 4.6, "Water Quality." This measure requires filing an Notice of Intent (NOI) with the Central Valley RWQCB; implementing standard erosion and siltation measures and best management practices (BMPs); preparing and implementing a storm water pollution prevention plan (SWPPP); and complying with the conditions of the National Pollutant Discharge Elimination System (NPDES) general stormwater permit for construction activity.*

- *SAFCA shall identify and implement feasible in-water construction work windows in consultation with NMFS, USWFS, and DFG. In-water work windows shall be timed to occur when sensitive fish species/life stages are not present or least susceptible to disturbance (e.g., July 1–October 31). This measure would reduce potential construction-related direct impacts to fish from potential dredging and/or construction of the cofferdam and dewatering, and/or the placement of rock riprap because all in-water work would occur during the period of time that sensitive fish (or life stages) would be least likely to be present in the construction area.*

- *USACE shall initiate Section 7 consultation with NMFS under Section 7 of the ESA, and SAFCA shall consult with DFG under CESA regarding potential construction-related impacts to Federally listed fish species and state-listed fish species, respectively. SAFCA shall implement any additional measures developed through the ESA Section 7 and CESA consultation processes, including Section 2081 permit conditions, to ensure that impacts are avoided and/or minimized.*

- *The cofferdam sheetpiles at the outfall structure construction site shall be installed using a vibratory hammer that minimizes underwater sound pressure levels to the greatest extent feasible to minimize effects to sensitive fish species. Hammers shall only be used during daytime hours and shall commence at low energy levels and slowly build to impact force. If it is determined that a higher-intensity percussion hammer would be required for installing the cofferdam, avoidance of potential adverse effects would be achieved by consulting with NMFS, USFWS, and DFG to determine the appropriate actions, which may include surveying the outfall site to determine fish presence prior to installation, and possibly modifying the work window accordingly.*

- *To reduce the potential for fish stranding or minimize the potential for harm during cofferdam dewatering activities, SAFCA or its contractor shall implement a fish rescue plan. Prior to the closure of the cofferdam in the Sacramento River, seining by a qualified fisheries biologist (with a current DFG collection permit) would be conducted within the cofferdam using a small-mesh seine to direct and move fish out of the cofferdam area. Upon completion of seining, the entrance to the cofferdam will be blocked with a net to prevent fish from entering the cofferdam isolation area before the cofferdam is completed. Once the cofferdam is completed and the area within the cofferdam is closed and isolated, additional seining will be conducted within the cofferdam to remove any remaining fish. Once most of the fish have been removed from the isolated area, portable pumps with intakes equipped with 1.75 mm mesh screen shall be used to dewater to a depth of 1.5-2 feet. A qualified biologist would implement further fish rescue operations using electrofishing and dip nets. All fish that are captured will be placed in clean 5-gallon buckets and/or coolers filled with Sacramento River water, transported downstream of the construction area, and released back into suitable habitat in the Sacramento River with minimal handling. After all fish have been removed using multiple seine passes, electrofishing, and dip nets (as necessary) portable pumps with screens (see above) will be used for final dewatering. NMFS, USFWS, and DFG shall be notified at least 48 hours prior to the fish rescue.*

M. Impact 4.7-k: Impacts on Successful Implementation of the NBHCP

The Phase 4a Project could threaten the viability of populations of certain covered species, reduce the effectiveness of the NBHCP's conservation strategy, and otherwise jeopardize successful implementation of the NBHCP. This impact would be potentially significant. Additionally, if habitat creation and preservation are not effectively implemented, loss of habitat would be a potentially significant impact. Implementation of Mitigation Measure 4.7-k, set forth below, which is hereby adopted and incorporated into the Phase 4a Project. would reduce this impact to a less-than-significant level. Mitigation Measures 4.7-a, 4.7-c, and 4.7-e through 4.7-h are set forth in full in the discussions of Impacts 4.7-a, 4.7-c, and 4.7-e through 4.7-h, above .

**Mitigation Measure 4.7-k**: **Ensure that Project Encroachment Does Not Jeopardize Successful Implementation of the NBHCP and Implement Mitigation Measures 4.7-a, 4.7-c, and 4.7-e through 4.7-h**

*To reduce impacts on the successful implementation of the NBHCP, SAFCA shall implement the measures described below:*

- *Implement Mitigation Measures 4.7-a, 4.7-c, and 4.7-e through 4.7-h.*

- *Based on the current value-per-acre, SAFCA shall contribute funds to TNBC to offset direct impacts to TNBC reserves on an acre-per-acre basis, drawing upon TNBC's existing land surplus.*

N. Impact 4.8-a: Potential Changes to Elements of Reclamation District 1000 and Rural Landscape District

RD 1000 is a rural historic landscape district, and the Phase 4a Project could affect some of the historic elements of the district. This would be a potentially significant impact. Implementation of Mitigation Measure 4.8-a, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level.

**Mitigation Measure 4.8-a**: **Incorporate Mitigation Measures to Documents Regarding Any Elements Contributing to RD 1000 and Rural Landscape District and Distribute the Information to the Appropriate Repositories**

*The management of the cultural resources that constitute the contributing elements of RD 1000 is governed by the PA (Appendix E1 of the DEIS/DEIR). Because the elements of the RD 1000 historic landscape district have already been recorded, a new inventory of these resources is not required under Stipulation IV(A) of the PA. After an APE has been determined per Stipulation III(C), a qualified architectural historian shall determine if contributing elements of the district are present in the APE. If contributing elements are present, the architectural historian shall update records for these resources and evaluate those elements to determine if they retain integrity. Because much of the Natomas Basin has been developed, it is possible that changes to the setting have diminished the integrity and thus eligibility of contributing elements in the APE. If the elements in the APE retain eligibility, the architectural historian shall make a finding of effect.*

*If there is an adverse effect to a contributing element (under Section 106) or a significant impact on the resource's integrity as an historical resource (under CEQA), the architectural historian shall review existing HAER documentation and determine whether any augmentation of this documentation is needed. The original documentation for the American River Watershed Project (completed in 1997) contemplated changes to the setting of the district and thus provided comprehensive documentation to record the district before urbanization (Peak & Associates 1997). This original documentation was intended to adequately recorded and preserve records of the elements that may be affected. However, if this documentation is not sufficient for adversely affected and contributing elements, SAFCA shall prepare an Historic Property Treatment Plan (HPTP) stipulating additional HAER documentation, or other similar treatment as required under Stipulation V(A). After consultation with USACE and the State Historic Preservation Officer (SHPO), SAFCA shall implement the required documentation or treatment prior to construction. Any additional documentation that is needed shall be prepared and distributed to appropriate public repositories.*

O. Impact 4.9-a: Disturbance of Unknown Unique Paleontological Resources during Earthmoving Activities

Of the areas potentially excavated as part of the Phase 4a Project, portions of the Fisherman's Lake Borrow Area and Northern Main Pump Station overlie paleontologically sensitive rock units. Because construction-related activities have the potential to encounter and damage or destroy unique paleontological resources, this impact would be potentially significant. Implementation of Mitigation Measure 4.9-a, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level.

**Mitigation Measure 4.9-a**: **Conduct Construction Personnel Training and, if Paleontological Resources Are Found, Stop Work Near the Find and Implement Mitigation in Coordination with a Professional Paleontologist**

*Before the start of construction and/or borrow activities in the Riverbank Formation or the Modesto Formation, construction personnel involved with earthmoving activities shall be informed by SAFCA of the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction activities, and the proper notification procedures should fossils be encountered. This worker training may be either (1) prepared and presented by an experienced field archaeologist at the same time as construction worker education on cultural resources, or (2) prepared and presented separately by a qualified paleontologist.*

*If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately stop work in the vicinity of the find. SAFCA shall retain a qualified paleontologist to evaluate the resource and prepare a mitigation plan in accordance with SVP guidelines (1995). The mitigation plan may include a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations made by the paleontologist, in consultation with SAFCA, shall be implemented before construction activities can resume at the site where the paleontological resources were discovered.*

P. Impact 4.10-b: Temporary Increase in Traffic Hazards on Local Roadways

Phase 4a Project construction would result in a combination of a high volume of slow-moving truck traffic, potentially tracking mud and debris onto roadways, workers entering and exiting construction site, periodic road and lane closures associated with levee improvements, and potential damage to pavement that would increase traffic hazards on local roadways during the construction period. This impact would be significant. Implementation of Mitigation Measure 4.10-b, summarized below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level. Mitigation Measure 4.10-a is set forth in full in the discussion of Impact 4.10-a, above .

**Mitigation Measure 4.10-b***:* **Implement Mitigation Measure 4.10-a, "Prepare and Implement a Traffic Safety and Control Plan for Construction-Related Truck Trips"**

*SAFCA and its primary contractors for engineering design and construction shall implement Mitigation Measure 4.10-a.*

Q. Impact 4.10-c: Temporary Disruption of Emergency Service Response Times and Access

The Phase 4a Project would result in increased traffic on local roadways and temporary road closures, both of which could lead to delays in emergency service response times. This impact would be potentially significant. Implementation of Mitigation Measure 4.10-c, set forth below, would reduce this impact to a less-than-significant level. Mitigation Measure 4.10-c is hereby adopted and incorporated into the Phase 4a Project.

**Mitigation Measure 4.10-c: Notify Emergency Service Providers about Project Construction and Maintain Emergency Access or Coordinate Detours with Providers**

*SAFCA and its primary contractors for engineering design and construction shall implement Mitigation Measure 4.10-a, above.*

R. Impact 4.10-d: Conflict with Adopted Policies, Plans, or Programs Supporting Alternative Transportation

The Phase 4a Project would not include changes in policies or programs that support alternative transportation and is not in conflict with adopted policies, plans, or programs supporting alternative transportation. However, bicycle use of roadways in the Phase 4a Project area does occur on roadways without bikeway designations. Proposed on-road haul routes would expose bicyclists using these routes to increased hazards during construction. The potential increase in hazards for bicyclists using the Phase 4a Project area roadways would be a temporary, short-term construction-related significant impact. Implementation of Mitigation Measure 4.10-d, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level.

**Mitigation Measure 4.10-d**: **Prepare and Implement a Bicycle Detour Plan for Project Area Roadways, Including Garden Highway**

*SAFCA shall implement the following measures to reduce temporary, short-term construction impacts on bicycle transportation facilities in the project area:*

- *Before the start of construction, SAFCA or its primary contractor shall prepare a bicycle detour plan for roadways that would be affected by project construction activities, including Garden Highway, in consultation with the County Alternative Modes Coordinator and/or City of Sacramento Bicycle and Pedestrian Coordinator as applicable. The detour plan shall include posted signs clearly indicating closure points, truck haul routes, detour routes, and informational signs to notify motorists and bicyclists to share the roads. Signs shall be posted outside of the immediate project area in order to notify bicyclists of closure points and detours. The detour plan shall be in place before the start of construction and shall be maintained and implemented throughout the construction period.*

S. Impact 4.14-a: Potential Temporary Disruption of Irrigation Water Supply

Phase 4a Project construction activities have the potential to impede the repair of damaged irrigation facilities and cause a delay in the provision of irrigation water supply. This impact would be potentially significant. Implementation of Mitigation Measure 4.14-a, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level.

**Mitigation Measure 4.14-a: Coordinate with Irrigation Water Supply Users Before and During All Irrigation Infrastructure Modifications and Minimize Interruptions of Supply**

*SAFCA and its primary contractors for engineering design and construction shall ensure that the measures listed below are implemented to minimize the potential for irrigation water supply interruptions during construction activities.*

- *Coordinate the timing of all modifications to irrigation supply infrastructure with the affected infrastructure owners and water supply users, either directly or through NCMWC.*
- *Include detailed scheduling of the phases of modifications/replacement of existing irrigation infrastructure components in project design and in construction plans and specifications.*
- *Plan and complete modifications of irrigation infrastructure for the nonirrigation season to the extent feasible.*
- *Provide for alternative water supply, if necessary, when modification/replacement of irrigation infrastructure must be conducted during a period when it would otherwise be in normal use by an irrigator.*
- *Ensure either that (1) users of irrigation water supply do not, as a result of physical interference associated with the project, experience a substantial interruption in irrigation supply when such supply is needed for normal, planned farming operations (i.e., a decrease in level of service in comparison with the existing level of service), or (2) users of irrigation water supply that experience a substantial decrease in an existing level of service that meets the established standards for the project area are compensated in kind for losses associated with the reduction in level of service.*

T. Impact 4.14-b: Potential Disruption of Utility Service

Phase 4a Project implementation would encroach on multiple types of utility equipment and facilities. Service interruptions could occur, and the extent and intensity of project construction activities may affect serve providers' abilities to quickly repair damage and/or restore interrupted service. This impact would be potentially significant. Implementation of Mitigation Measure 4.14-b, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level. Mitigation Measure 4.15-c is set forth in full in the discussion of Impact 4.15-c, below.

**Mitigation Measure 4.14-b**: **Verify Utility Locations, Coordinate with Utility Providers, Prepare and Implement a Response Plan, and Conduct Worker Training with Respect to Accidental Utility Damage and Implement Mitigation Measure 4.15-c, "Review Design Specifications and Prepare and Implement an Impact Avoidance and Contingency Plan in Consultation with Wickland Pipelines, LLC"**

*Before construction begins, SAFCA and its primary contractors shall coordinate with USACE, the CVFPB, and applicable utility providers to implement orderly relocation of utilities that need to be removed or relocated. Power pole relocations shall be coordinated with SMUD and SACDOT to avoid conflicts with the SACDOT-proposed bike/pedestrian path. Existing main electrical power transmission lines and poles on the waterside of the existing Garden Highway levee that do not need to be relocated or replaced to accommodate the project may be left in place. No new main electrical power transmission lines and poles shall be installed on the waterside of Garden Highway. Consistent with sound engineering practices that prioritize the following, individual service lines shall: (1) use existing configurations and facilities, and (2) any new poles shall be placed on the landside of Garden Highway, subject to the approval of USACE, the CVFPB, and any other regulatory public agencies and utility companies. SAFCA shall implement Mitigation Measure 4.15-c, "Review Design Specifications and Prepare and Implement an Impact Avoidance and Contingency Plan in Consultation with Wickland Pipelines, LLC."*

- *SAFCA and its primary construction contractors shall provide the following: Notification of any potential interruptions in service shall be provided to the appropriate agencies and affected landowners.*
- *Before the start of construction, utility locations shall be verified through field surveys and the use of the Underground Service Alert services. Any buried utility lines shall be clearly marked in the area of construction on the construction specifications in advance of any earthmoving activities.*
- *Before the start of construction, a response plan shall be prepared to address potential accidental damage to a utility line. The plan shall identify chain of command rules for notification of authorities and appropriate actions and responsibilities to ensure the safety of the public and workers. Worker education training in response to such situations shall be conducted by the contractor. The response plan shall be implemented by SAFCA and its contractors during construction activities.*
- *Utility relocations shall be staged to minimize interruptions in service.*

U. Impact 4.15-b: Exposure to Hazardous Materials Encountered at Project Sites

Within the Phase 4a Project footprint there are a variety of environmental concerns and Recognized Environmental Conditions that indicate the existence or likely existence of hazardous materials. Phase 4a Project construction activities could, therefore, result in an unacceptable risk to human health or the environment. This impact would be potentially significant. Implementation of Mitigation Measures 4.15-b(1) and 4.15-b(2), set forth below, which are hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level. Mitigation Measure 4.6-a is set forth in full in the discussion of

Impact 4.6-a, Mitigation Measure 4.11-a is set forth in full in the discussion of Impact 4.11-a,[4] and Mitigation Measure 4.14-b is set forth in full in the discussion of Impact 4.14-b, all above.

**Mitigation Measure 4.15-b(1)*:* Implement Mitigation Measure 4.11-a, "Implement Applicable District-Recommended Control Measures to Minimize Temporary Emissions of ROG, $NO_x$, and $PM_{10}$ during Construction," and Mitigation Measure 4.6-a, "Implement Standard Best Management Practices, Prepare and Implement a Stormwater Pollution Prevention Plan, and Comply with National Pollutant Discharge Elimination System Permit Conditions"; and Complete Phase I and/or II ESAs and Implement Recommended Measures**

*SAFCA shall implement Mitigation Measure 4.11-a, "Implement Applicable District-Recommended Control Measures to Minimize Temporary Emissions of ROG, $NO_x$, and $PM_{10}$ during Construction," set forth in Section 4.11, "Air Quality." In summary, this mitigation measure requires preparation of a construction emissions dust control plan in accordance with SMAQWMD's recommendations to reduce fugitive dust emissions. SAFCA and its primary construction contractors shall ensure that dust is not causing a nuisance beyond the property line of the construction site. This measure, in combination with the measures, below, that constitute the remainder of Mitigation Measure 4.15-b(1), would reduce the health risk to construction workers from inhalation of hazardous materials to a less-than-significant level by reducing the amount of potentially contaminated construction site dust to which construction workers would be exposed.*

*SAFCA shall implement Mitigation Measure 4.6-a, "Implement Standard Best Management Practices, Prepare and Implement a Stormwater Pollution Prevention Plan, and Comply with National Pollutant Discharge Elimination System Permit Conditions," set forth in Section 4.6 "Water Quality." In summary, this mitigation measure requires implementation of standard erosions, siltation, and good housekeeping best management practices; preparation and implementation of a Stormwater Pollution Prevention Plan; and compliance with the conditions of the NPDES general stormwater permit for construction activity.*

*Before the start of any construction activities, SAFCA shall ensure that Phase I ESAs are completed for all sites subject to ground disturbance, and that any additional site evaluations that be recommended in the Phase I ESAs are conducted. For the following sites where Phase I ESAs have been completed, the following additional evaluations (as recommended in the*

[4] As discussed in section 4.11, "Air Quality," implementation of Mitigation Measure 4.11-a would reduce project-generated construction-related emissions in Sacramento County, but it is anticipated that the Phase 4a Project could nonetheless result in emissions that substantially contribute to a violation of the ambient air quality standard for $PM_{10}$. Although the impact would be reduced with implementation of this mitigation measure, construction-related emissions for $PM_{10}$ would remain significant and unavoidable because there is no feasible mitigation that would fully reduce project generated construction-related emissions of $PM_{10}$ in Sacramento County to a less-than-significant level.

*applicable Phase I ESAs) shall be completed prior to start of construction or earthmoving activities:*

***Assessor's Parcel Number (APN) 201-0330-019***

- *Conduct a limited Phase II ESA to evaluate for pesticide residues, and the possible presence of petroleum and/or other hazardous materials associated with on-site ASTs and drums.*

***APNs 225-0010-038, 225-0010-041, and 225-0010-043***

- *Conduct a limited Phase II ESA to evaluate for pesticide residues, and the possible presence of petroleum and/or other hazardous materials associated AST tanks and an on-site vehicle.*
- *Conduct a geophysical survey to assess the presence of a possible underground storage tank (UST) and if present, collect soil and/or groundwater samples to evaluate if contamination exists.*

***APNs 225-0090-014, 225-0110-050, 225-0101-007, 225-0101-057, 225-0101-058, 225-0101-061, 225-0110-018, and 225-0110-051***

- *Conduct a limited Phase II ESA to evaluate for pesticide residues.*

***APN 225-0090-040 (Novak Property)***

- *As recommended in the Phase I ESA (Kleinfelder 2009a), a limited Phase II ESA was completed to evaluate for pesticide residues. The possible presence of petroleum and/or other hazardous materials associated with on-site ASTs, car batteries, burn areas, and drums shall be evaluated before the start of earth-moving activities.*

***APN 225-0090-069***

- *Conduct a limited Phase II ESA to evaluate for pesticide residues.*
- *Conduct a geophysical survey to assess the presence of a possible UST and if present, collect soil and/or groundwater samples to evaluate if contamination exists.*
- *APNs 225-0101-003, 225-0101-004, 225-0101-005, 225-0101-006*
- *Conduct a limited Phase II ESA to evaluate for pesticide residues.*
- *Conduct a geophysical survey to assess the presence of a possible UST and if present, collect soil and/or groundwater samples to evaluate if contamination exists.*

***APN 225-0210-026***

- *Conduct a limited Phase II ESA to evaluate for pesticide residues and residual chemical concentrations related to petroleum product surface staining.*

***APNs 225-0110-019, 225-0110-020, and 225-0110-037 (Huffstutler Trust/Johnson Property)***

- *Conduct additional Phase II ESA work to further evaluate for potentially hazardous materials discussed in the Phase I ESA, including potential hydrocarbon contamination, miscellaneous refuse, unlabeled containers, and compounds found in aboveground and underground structures.*
- *Retain an Industrial Hygienist to prepare a Construction Worker Health and Safety Plan. The Construction Worker Health and Safety Plan Shall include, but shall not be limited to: personal protective equipment for workers, a delineation of the horizontal and vertical extent of elevated arsenic levels, a list of required monitoring equipment to be onsite during contaminated soil excavation (e.g., air quality meter), and proper procedures in the event that stained soil is encountered.*
- *Retain a qualified professional to conduct an Ecological Risk Assessment. The Ecological Risk Assessment shall include, but shall not be limited to: potential chemicals of concern, biological characterization of the site, identification of potential exposure pathways, ecological receptors, and recommendations for and implementation of remediation, if necessary.*

***APNs 201-0250-015, 201-0270-002, and 201-0270-037 (South Sutter, LLC Borrow Site)***

- *Conduct a Phase II ESA to evaluate for potentially hazardous materials discussed in the Phase I ESA, including potential miscellaneous refuse, unlabeled containers, and ASTs may have impacted the soil.*
- *Remove, as appropriate, items on site, such as the AST, car batteries, unlabeled storage tanks, debris, and water wells in accordance with regional, local, state, and Federal regulations.*

**Mitigation Measure 4.15-b(2)*:* Complete Investigations Related to the Extent to Which Soil and/or Groundwater May Have Been Contaminated in Areas Not Covered by the Phase I and/or II ESAs and Implement Required Measures (e.g., Site Management and/or Other Contingency Plans)**

*For parcels that will be used for Phase 4a Project borrow activities or where earthmoving activities would occur, SAFCA shall ensure that the contractor complete the following prior to start of construction and earthmoving activities:*

- *Prepare a site management plan, subject to SAFCA review and approval that contains protocols and procedures for excavation, use, disposal, and handling of soil containing pesticide residues or contaminants, and for identifying possible contamination during construction. The plan shall include measures for the safe transport, use, and disposal of pesticide residue impacted soil and building debris removed from the site. Soil reuse may include: containing portions of the affected topsoil within the core of seepage berms, with an overlay of clean soil to prevent surface runoff caused by rainfall erosion on the topsoil materials; rip, mix, and/or amend affected topsoil that is re-spread onto borrow sites, levee, and/or berm surfaces, to provide a plant growth medium and reduce the concentration of pesticide residues in the soil; establish native perennial grasses and other perennial*

*vegetation cover (e.g., hay, alfalfa) on these planted surfaces to reduce sediment runoff that may be caused by rainfall erosion or surface irrigation; and improve the drainage of agricultural lands used as borrow/mitigation sites to reduce ponded water and minimize the discharge of sediments into nearby drainages. In the event that impacted groundwater is encountered during site excavation activities, the contractor shall report the chemical concentrations to the appropriate regulatory agencies, dewater the excavated area, and treat the groundwater to remove the chemicals before discharge. The contractor shall be required to comply with applicable Federal, state, regional, and local laws. The plan shall outline measures for specific handling and reporting procedures for hazardous materials and disposal of hazardous materials removed from the site at an appropriate off-site disposal facility. The plan shall include, but shall not be limited to: delineations of the horizontal and vertical extent and concentration of soil contamination; a list of required monitoring equipment to be onsite during soil excavation (e.g., an air quality meter shall be used at the fenceline during dust-producing activities); sampling and analysis protocol for additional soil investigations; a list of necessary agencies to be contacted if chemical concentrations in water, air, and/or soil exceed set threshold limits; and a list of necessary permits, reports, or other compliance mechanisms.*

- *Retain an industrial hygienist to prepare a construction worker health and safety plan. The construction worker health and safety plan shall include, but not be limited to: personal protective equipment for workers, a delineation of the horizontal and vertical extent of elevated arsenic levels, a list of required monitoring equipment to be on-site during contaminated soil excavation (e.g., air quality meter), and proper procedures in the event that stained soil is encountered.*
- *Retain a qualified professional to conduct an ecological risk assessment on sites found to contain levels of contaminant exceeding pertinent ecological risk levels. The ecological risk assessment shall include, but not be limited to: potential chemicals of concern, biological characterization of the site, identification of potential exposure pathways, ecological receptors, and recommendations for and implementation of remediation, where feasible and practicable.*
- *Retain an air quality specialist to monitor the concentration of particulates of concern in the air at the project fenceline, adjacent to residential property to ensure compliance with Federal, state, regional, and local regulations, to the extent feasible and practicable. Airborne particulate monitoring should be performed in the on-site worker's breathing zone using the Particulate Not Otherwise Specified (NOS) concentrations standard of 5 mg/$m^3$ as well as at the project boundaries using the Fenceline Particulate NOS goal of 0.3 mg/$m^3$.*
- *Retain a licensed contractor to remove USTs, ASTs, and stained soils in accordance with applicable Federal, state, regional, and local regulations.*
- *Retain a licensed contractor to remove and dispose of asbestos cement pipe found within the project area in accordance with applicable Federal, state, regional, and local regulations.*
- *Retain a licensed contractor to remove septic systems, water wells, and other underground structures, as needed, in accordance with applicable Federal, state, regional, and local regulations.*

- *Retain an asbestos specialist who is certified by the California Occupational Safety and Health Administration (Cal/OSHA) The asbestos specialist shall investigate whether asbestos-containing materials or lead-based paints are present before demolition of on-site buildings and utilities. If materials containing asbestos or lead are found, they shall be removed by an accredited contractor in accordance with EPA and Cal/OSHA standards. In addition, activities (construction or demolition) in the vicinity of these materials shall comply with Cal/OSHA asbestos and lead worker construction standards. The materials containing asbestos and lead shall be disposed of properly at an appropriate off-site disposal facility.*

- *Obtain an assessment conducted by the Sacramento Municipal Utility District and/or Pacific Gas & Electric Company pertaining to the contents of the existing pole-mounted transformers that would be relocated as part of the Phase 4a Project. The assessment shall determine whether existing on-site electrical transformers contain polychlorinated biphenyls (PCBs) and whether there are records of spills from such equipment. If equipment containing PCBs is identified, the maintenance and/or disposal of the transformer shall be subject to the regulations of the Toxic Substances Control Act under the authority of the Sutter County Environmental Health Division and Sacramento County Environmental Management Department.*

- *Identify oil and gas well locations. Prepare and implement a California Department of Oil, Gas, and Geothermal Resources well review program, if necessary.*

- *Notify the appropriate Federal, state, regional, and local agencies, as required, if evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater) is encountered during construction activities. Areas with chemical concentrations exceeding regulatory levels shall be cleaned up in accordance with recommendations made by the Sutter County Environmental Health Division, Sacramento Environmental Management Department, Central Valley RWQCB, DTSC or other appropriate Federal, state, regional, or local regulatory agencies as generally described above.*

- *Implement Mitigation Measure 4.14-b, "Verify Utility Locations, Coordinate with Utility Providers, Prepare and Implement a Response Plan, and Conduct Worker Training with Respect to Accidental Utility Damage," as set forth in Section 4.7, "Utilities and Service Systems."*

### V. Impact 4.15-c: Risk of Accidental Release of Jet Fuel from Construction Near an Existing Pipeline in Reach 11B of the Sacramento River East Levee

A 12-inch diameter pipeline that supplies jet fuel, primarily consisting of kerosene, from the Port of Sacramento to the Airport traverses the Phase 4a Project footprint through Reach 11B of the Sacramento River east levee. Because there is a potential for accidental damage to the jet fuel pipeline during Phase 4a Project construction that could result in a spill of hazardous substance into the environment and could adversely affect human health and the natural environment, this impact is considered to be potentially significant. Implementation of Mitigation Measure 4.15-c, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level.

**Mitigation Measure 4.15-c**: **Review Design Specifications and Prepare and Implement an Impact Avoidance and Contingency Plan in Consultation with Wickland Pipelines, LLC**

*Prior to issuance of construction contract bid requests for the Phase 4a Project, SAFCA and its engineering and design consultants shall ensure that Wickland Pipelines, LLC has approved design specifications and impact avoidance and safety measures for construction activities within 50 feet of the jet fuel pipeline (CCR Title 8, Section 1541). Construction specifications to be approved with Wickland Pipelines, LLC include, but are not limited to, the type of construction and equipment (e.g., bulldozers, graders, excavators) and the location and depth of earth-moving activities near the pipeline (i.e., 50 feet). All excavation and construction in the vicinity (i.e., 50 feet) of the jet fuel pipeline shall be undertaken in strict conformity with the most recent version of the Best Practice of the Common Ground Alliance available.*

*Prior to the start of earthmoving activities, an impact avoidance and contingency plan shall be prepared and implemented by SAFCA in consultation with Wickland Pipelines, LLC. The plan shall include, but shall not be limited to:*

- *a contingency plan for actions to take in the event of damage to the pipeline or release of jet fuel, which shall include chain of command and notification procedures, worker safety, pipeline security, wildlife care, response procedures, necessary permits for response actions, and waste handling and disposal;*
- *a worker health and safety plan and worker training that shall consider personal protective equipment, operations safety within 50 feet of the pipeline, and a contact list for reporting and obtaining medical service; and*
- *a method to provide the Airport with jet fuel in the event that the pipeline incurs substantial damage.*

*Agreements made between SAFCA, SAFCA's contractor, and Wickland Pipelines, LLC shall be in compliance with applicable Federal and state regulations (e.g., Hazardous Liquid Pipeline Safety Act, Pipeline Safety Improvement Act of 2002, Cal OSHA regulations).*

W. Impact 4.15-d: Interference with an Adopted Emergency Evaluation Plan

The Phase 4a Project would increase traffic on local roads and lead to occasional road closures. In addition, temporary road closures associated with levee improvements could cause or contribute to temporary increases in traffic levels as traffic is detoured or slowed on some local roadways and SR 99/70. Increased traffic congestion could interfere with the use of the main roadways for emergency evacuation routes. This impact would be significant. Implementation of Mitigation Measure 4.15-d, summarized below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level. Mitigation Measure 4.10-a is set forth in full in the discussion of Impact 4.10-a, above.

**Mitigation Measure 4.15-d: Notify State and Local Emergency Management Agencies about Project Construction and Coordinate Any SR 99/70 Detours with these Agencies to Ensure That Any Need for Emergency Use Is Not Significantly Impaired**

*SAFCA shall implement Mitigation Measure 4.10-a, set forth in Section 4.10, "Traffic and Circulation," to avoid impairment of the use of SR 99/70 as an emergency evacuation route.*

X. Impact 4.15-e: Hazardous Emissions or Handling of Hazardous or Acutely Hazardous Materials, Substances, or Waste within One-Quarter Mile of an Existing or Proposed School

Construction of the Phase 4a Project would involve use of potentially hazardous materials, and undocumented contamination may be discovered during construction. Because there are schools in the vicinity of the Phase 4a Project footprint, the potential exists for exposure to hazardous materials within one-quarter mile of a school. This impact would be significant. Implementation of Mitigation Measure 4.15-e, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level. SAFCA provided the written notification called for in Mitigation Measure 4.15-e on April 21, 2009, which occurred prior to certification of the EIR.

**Mitigation Measure 4.15-e: Notify the Natomas Unified School District and Applicable Schools with Jurisdiction within One-Quarter Mile of Project Construction Activities**

*SAFCA shall provide written notification of the project to each of the affected schools and the Natomas and Twin Rivers Unified School Districts within 30 days prior to certification of t this EIS/EIR and shall consult with the Natomas and Twin Rivers Unified School Districts regarding the potential impacts on schoolchildren from hazards associated with project implementation.*

Y. Impact 4.15-f: Temporary Aircraft Safety Hazards Resulting from Project Construction Activities Within or Near the Airport Critical Zone

Portions of the Phase 4a Project footprint are within the Airport Critical Zone. Night lighting of construction areas could create a safety hazard related to aircraft landings. This impact would be significant. Implementation of Mitigation Measure 4.15-f, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level.

**Mitigation Measure 4.15-f: Coordinate Work in the Critical Zone with Airport Operations and Restrict Night Lighting Within and Near the Runway Approaches**

*SAFCA and its primary construction contractors shall ensure that the following mitigation is implemented to avoid interference of construction activities with Airport operations.*

- *No borrow activities shall be conducted within the Airport Critical Zone during nighttime hours.*
- *All project-related nighttime lighting that is in, or is aligned with, the Airport runway approach zones (Sacramento River east levee Reaches 10–11A) shall be directed downward to avoid potential interference with nighttime aircraft operations.*

- *SAFCA shall submit the FAA form 7460-1, Notice of Proposed Construction or Alteration, which notifies the FAA of construction or alteration that might affect navigable airspace. This form must be submitted to the FAA at least 30 days before the earlier of the following dates: (1) the date the proposed construction or alteration is proposed to begin, or (2) the date an application for a construction permit is to be filed.*

- *SAFCA shall ensure that the SCAS is informed in advance of the timing and nature of all construction activities within the Airport Critical Zone, and shall coordinate with SCAS during final project design to ensure that all appropriate safety precautions within the Airport Critical Zone are incorporated into the construction plans. Additionally, requirements provided by the Federal Aviation Administration (FAA), not incorporated into this document, shall be followed.*

- *SAFCA shall submit the FAA form 7460-1, Notice of Proposed Construction or Alteration, which notifies the FAA of construction or alteration that might affect navigable airspace. This form must be submitted to the FAA at least 30 days before the earlier of the following dates: (1) the date the proposed construction or alteration is proposed to begin, or (2) the date an application for a construction permit is to be filed.*

Z. Impact 4.15-h: Potential Exposure to Wildland Fires

Phase 4a Project components would be constructed in locations where physical and weather conditions may combine to lead to a high risk of fire hazard. Construction equipment or construction practices could ignite fires that may result in wildland fires. This impact would be significant. Implementation of Mitigation Measure 4.15-h, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this impact to a less-than-significant level.

**Mitigation Measure 4.15-h*:* Prepare and Implement a Fire Management Plan to Minimize Potential for Wildland Fires**

*SAFCA and its primary contractors for engineering design and construction shall prepare and implement a fire management plan in coordination with the appropriate emergency service and/or fire-suppression agencies of the applicable local jurisdictions before beginning project construction. The plan shall describe fire prevention and response methods, including fire precaution, presuppression, and suppression measures that are consistent with the policies and standards of the affected jurisdictions. All materials and equipment required for implementation of the plan shall be maintained on-site. All construction personnel shall be made familiar with the contents of the plan before construction activities begin.*

AA. Impact 4.16-a: Potential to Have a Disproportionately High and Adverse Environmental Impact On Any Minority Or Low-Income Population

The Phase 4a Project could result in disturbance or damage to cultural resources of importance to the Native American community, while the Native American community would not receive a proportionate benefit from the flood damage reduction provided by the Phase 4a

Project. This would be a significant impact pursuant to NEPA, although it is not a CEQA significant effect on the environment. Implementation of Mitigation Measure 4.16-a, set forth below, which is hereby adopted and incorporated into the Phase 4a Project, would reduce this NEPA impact to a less-than-significant level.

**Mitigation Measure 4.16-a: Increase the Direct Benefits of the Project for the Ancestors of the Native American Tribes**

*As part of the Phase 4a Project, SAFCA proposes to acquire various properties in the Natomas Basin as compensation for the project's potential impacts, as required under Federal and state laws. As part of the process for restoring these lands, SAFCA shall implement the following measures to address environmental justice and increase the direct benefits to the ancestors of the Native American tribes that would bear disproportionate adverse effects:*

- *consult with appropriate Native American representatives to identify plant species of value for traditional cultural uses;*
- *consult with Native American representatives to identify traditional cultural activities that could occur on these lands, consistent with habitat conservation and safety objectives;*
- *to the extent feasible, include identified plant species in the planting palettes developed for habitat conservation;*
- *to the extent feasible, establish easements or other protective measures on these properties that include access for appropriate Native American representatives for plant gathering and other traditional cultural activities; and*
- *where feasible, also provide access to appropriate Native American representatives to the river front on acquired parcels that have access to the Sacramento River, provided that access does not permit the construction of physical structures on the levee, beaches, or in the river without prior approval from the appropriate regulatory agency.*

## IV. LESS-THAN-SIGNIFICANT IMPACTS

The FEIR identifies the following less-than-significant impacts. Mitigation to further reduce less-than-significant impacts is not required by CEQA.

### A. Impact 4.2-a: Inconsistency with Airport Master Plan, Airport Land Use Compatibility Plan, and Airport Wildlife Hazard Management Plans

The Phase 4a Project would not conflict with the implementation of the adopted Airport Master Plan, ALUCP, or Airport Wildlife Hazard Management Plans. The Project would be consistent with these plans, thus the impact would be less than significant; therefore; no mitigation is required.

**Mitigation Measure: No mitigation is required.**

B. Impact 4.5-a: Hydraulic Impacts on Other Areas and Exposure to Flood Risk

The Phase 4a Project would not have a significant adverse hydraulic impact on the Sacramento River Flood Control Project. Because the project would replace or upgrade existing levees using up-to-date design and construction standards, it would substantially reduce the risk of flooding of the Natomas Basin. This impact would be less than significant (beneficial); therefore, no mitigation is required.

**Mitigation Measure: No mitigation is required.**

C. Impact 4.5-c: Effects on Groundwater

Excavation and reclamation of the Fisherman's Lake Borrow Area as part of the Phase 4a Project would have an indirect effect on groundwater conditions due to land use and water supply changes. Current groundwater levels in the Fisherman's Lake Area vary widely, depending upon soil type and subsurface stratigraphy; groundwater levels also vary by season, with higher levels in winter than in summer. Because the overall effects of land use changes are minor, this impact is considered less-than-significant; therefore, no mitigation is required.

**Mitigation Measure: No mitigation is required.**

D. Impact 4.7-d: Impacts on Special-Status Plant Species

Of the three special-status plant species that were determined to have the potential to occur in the Phase 4a Project area (rose mallow, Delta tule pea, and Sanford's arrowhead), all would occur in aquatic habitats. Focused surveys were conducted by EDAW botanists in July 2009 to assess whether the species in question are present in suitable habitat in the Phase 4a Project area. The surveys were conducted within the flowering period of these three species. No special-status plant species were found. This impact is considered less-than-significant; therefore, no mitigation is required.

**Mitigation Measure: No mitigation is required.**

E. Impact 4.7-j: Impacts to Fish Species Associated with Operation of Pump Plants and Surface Drains

The potential for interference with the migration of fish species resulting from the modifications to Pumping Plant Nos. 3 and 5 or the surface drainage outlets as part of the Phase 4a Project would be low. Modification/replacement of the irrigation pump plants including their intakes (Riverside, Bennett, and Northern Main Pumping Plants if the Proposed Action occurs before the ABFS project and South Lauppe under both timing scenarios) could result in the entrainment of fish. However, there would be no change in the rate or volume of water pumped compared to the existing condition, and therefore the potential for entrainment of fish into the pumps would be the same as under the existing condition. Therefore, impacts to fish species associated with modifications to/replacement of or operation of pumping plants and surface drains would be less-than-significant; therefore, no mitigation is required.

**Mitigation Measure: No mitigation is required.**

F. Impact 4.11-b: General Conformity with the Applicable Air Quality Plan

Modeling indicates that all Phase 4a Project emissions, with implementation of mitigation identified under Impact 4.11-b, would be below applicable de minimis standards. Construction is not anticipated to conflict with implementation of the SIP. This impact would be less-than-significant. Therefore, no mitigation is required.

**Mitigation Measure: No mitigation is required.**

G. Impact 4.11-c: Long-Term Changes in Emissions of ROG, $NO_x$, and $PM_{10}$ Associated with Project Implementation

Long-term Phase 4a Project operations would not result in increased regional emissions of ROG, $NO_x$, or $PM_{10}$, the operation of any new major stationary emission sources, or any violation of applicable air quality standards. This impact would be less than significant. Therefore, no mitigation is required.

**Mitigation Measure: No mitigation is required.**

H. Impact 4.11-d: Exposure of Sensitive Receptors to Toxic Air Emissions

Although the Phase 4a Project would result in mobile and stationary emissions of diesel PM, which is identified by the Air Resources Board as a TAC, these emissions would not result in the exposure of sensitive receptors to substantial concentrations of TACs. This impact would be less-than-significant; therefore, no mitigation is required.

**Mitigation Measure: No mitigation is required.**

I. Impact 4.12-b: Temporary, Short-term Exposure of Sensitive Receptors to or Temporary, Short-term Generation of Excessive Groundborne Vibration

Phase 4a Project on-site construction equipment will generate ground vibrations; however, because there are no residential buildings closer than 50 feet to the construction areas, vibration generated by other off-road construction equipment would not exceed the Caltrans (.2 in/sec PPB) or FTA (90 VdB) standards. Because levels would be less than Caltrans' and FTA's standards, this temporary, short-term impact related to vibration from construction equipment is considered less-than-significant; therefore, no mitigation is required.

**Mitigation Measure: No mitigation is required.**

J. Impact 4.12-d: Long-Term Increases in Project-Generated Noise

Proposed modifications to pump stations as part of the Phase 4a Project could result in increased noise levels due to the installation of new equipment. However, any pumps that would be replaced as part of the proposed modifications would be similar in size to the pumps that are currently operating at the stations. Operational noise levels associated with proposed pumping station improvements would be in compliance with applicable performance standards at nearby

receptors. Therefore, this impact would be less-than-significant; therefore, no mitigation is required.

**Mitigation Measure: No mitigation is required.**

K. Impact 4.12-e: Temporary Exposure of People Working in the Project Area to Excessive Airport Noise Levels

Construction activities for the Phase 4a Project would result in exposing people working in the project area to excessive Airport noise levels. However, construction areas would not exceed the recommended land use compatibility for Airport noise for the Phase 4a Project. This temporary, short-term impact is considered less-than-significant; therefore, no mitigation is required.

**Mitigation Measure: No mitigation is required.**

L. Impact 4.14-c: Increases in Solid Waste Generation

There would be no long-term generation of solid waste associated with Phase 4a Project operation. Temporary, short-term project construction activities would generate over 100,000 cubic yards of solid waste during construction of the Phase 4a Project. Project construction and operation would not cause existing regional landfill capacity to be exceeded; therefore, this temporary, short-term impact is considered less-than-significant; therefore, no mitigation is required.

**Mitigation Measure: No mitigation is required.**

M. Impact 4.15-a: Accidental Spills of Hazardous Materials

Phase 4a Project-related construction and maintenance activities would involve the use of potentially hazardous materials, such as fuels (gasoline and diesel), oils and lubricants, and cleaners (which could include solvents and corrosives in addition to soaps and detergents), that are commonly used in construction projects. Compliance with the applicable regulations would reduce the potential for accidental release of hazardous materials during their transport and during project activities. Consequently, the risk of significant hazards associated with the transport, use, and disposal of these materials is low. This impact is considered less-than-significant; therefore, no mitigation is required.

**Mitigation Measure: No mitigation is required.**

N. Impact 4.15-g: Potential for Higher Frequency of Collisions between Aircraft and Wildlife at Sacramento International Airport

Because the Phase 4a Project would not increase the amount of habitat considered to attract hazardous wildlife within the Airport Critical Zone, the Project would result in a less-than-significant impact related to Airport and wildlife collisions; therefore, no mitigation is required.

**Mitigation Measure: No mitigation is required.**

## V. ALTERNATIVES

The FEIR analyzes two alternatives at an equal level of detail as the Phase 4a Project (the "Proposed Action"): the No-Action Alternative and the Raise and Strengthen Levee in Place ("RSLIP") Alternative. The feasibility of each of these alternatives is determined below. The Proposed Action is the environmentally superior alternative because it would have the fewest overall environmental impacts (see DEIS/DEIR Table 2-15).

### A. No-Action Alternative

Consideration of a no-project alternative is required under CEQA. The No-Action Alternative (described more fully in the DEIS/DEIR on pages 2-9 through 2-14) consists of the conditions that would be reasonably expected to occur in the foreseeable future if no additional permissions to alter the existing levees or discharge dredged or fill material into waters of the United States would be granted. Under the No-Action Alternative, USACE would not issue permits and permissions under Sections 408, 404, or 10 for SAFCA to undertake the Phase 4a Project. Given the known deficiencies in the Natomas Basin perimeter levee system and its inclusion as part of the Federal flood damage reduction system, however, it can be assumed that USACE and/or the State of California would repair the Natomas levee system at some time in the future to meet the Federal and/or State flood risk reduction objectives associated with the Federal flood damage reduction system. The earliest that Federal construction under a Congressionally reauthorized USACE project could begin would be 2011 or 2012. Therefore, it is assumed that USACE and/or the State of California would begin repairs on the Natomas Basin levee system in 2011, at the earliest, and would complete the improvements providing 100-year flood protection no sooner than 2013. In the period before implementation of flood damage reduction measures for the Natomas Basin, there would remain a high potential for a major levee failure and flooding.

The No-Action Alternative analyzed in the DEIS/DEIR consists of two components: No Project Construction and Potential Levee Failure. "No Project Construction" refers to the impacts that would result because no flood damage reduction measures would be constructed. "Potential Levee Failure" refers to the impacts that could occur if the Natomas Basin perimeter levee system failed.

#### 1. No Project Construction

This scenario consists of the conditions that would likely prevail in the Natomas Basin if no action at all were taken by SAFCA, the State, or USACE to further improve the Basin's perimeter levee system beyond the accomplishments of the Sacramento Urban Levee Reconstruction Project and the North Area Local Project (NALP) and NLIP Phase 1, Phase 2 and Phase 3 Projects. Under this scenario key segments of this system would continue to provide less than 100-year flood protection, and the entire Natomas Basin would be permanently designated as a special flood hazard area subject to development restrictions and mandatory flood insurance requirements pursuant to the regulations of the National Flood Insurance Program (NFIP). SAFCA would not provide the Natomas Basin with at least a 100-year level of

flood protection by the end of 2010 and would not be able to facilitate achieving a 200-year level of protection by the end of 2012. The Airport may be compelled to operate within its existing footprint, abandoning its current plans for modernization and expansion; alternatively, the Airport may construct its own limited flood damage reduction structure (i.e., a ring levee) to protect existing facilities and its expansion area. The special flood hazard designation in the Natomas Basin would interrupt the regional blueprint for future (2030) growth adopted by the Sacramento Area Council of Governments (SACOG) and Valley Vision in 2006. Up to 60,000 dwelling units and associated commercial and industrial developments that the blueprint anticipates will be located in the Natomas Basin would be need to be redirected to other areas in the region over the next two decades. The Basin's existing residential, commercial, and industrial structures and their contents, with a replacement value of approximately $8.2 billion, or approximately $7.2 billion if the Airport facilities are excluded, would remain subject to a relatively high risk of flooding. The risk of environmental damage resulting from flooding in the urbanized portion of the Basin would remain relatively high.

2. Potential Levee Failure

Without additional improvements to the Natomas perimeter levee system, wind and wave run-up or seepage conditions could cause portions of this system to fail, triggering widespread flooding and extensive damage to the Basin's existing residential, commercial, agricultural, and industrial structures. Extensive damage to utilities, roadways, and other infrastructure systems would also likely occur. The magnitude of the flood damage would depend upon the location of the levee breach, severity of the storm, and river flows at the time of a potential levee failure.

3. Conclusion Regarding No-Action Alternative

This alternative would fail to meet the Phase 4a Project's basic objectives. Furthermore, the risk of a levee failure would remain high, resulting in the potential for multiple unavoidable significant adverse effects on environmental resources. For the foregoing reasons, the No-Action Alternative is hereby rejected as infeasible.

B. Raise and Strengthen Levee in Place Alternative

All elements of the RSLIP Alternative (described more fully in the DEIS/DEIR on pages 2-86 through 2-93) would be the same as for the Phase 4a Project except the method of raising and rehabilitating the Sacramento River east levee, the extent of levee degradation required to construct cutoff walls, and the extent of encroachment removal along the levee.

The RSLIP Alternative differs from the Phase 4a Project in that it would result in (1) removal of waterside trees along the Sacramento River east levee to conform with USACE guidance regarding levee encroachments (estimated 21 acres of lost SRA habitat), and (2) loss of waters of the United States due to the implementation of erosion control improvements along the waterside of Sacramento River east levee. These effects would require a different compensation strategy than for the Phase 4a Project.

In terms of flood reduction system design, the Phase 4a Project and the RSLIP Alternative differ in terms of how they would achieve the required levee height increases along the Sacramento River east levee. Therefore, the differences between the Phase 4a Project and the

RSLIP Alternative, including effects on habitats, are the result of these Sacramento River east levee design differences.

The RSLIP Alternative could result in significant and unavoidable effects on SRA habitat function associated with the removal of as much as 21 acres of riparian vegetation on the water side of the Sacramento River east levee in order to conform with USACE guidance regarding levee encroachments (USACE 2000), whereas the Phase 4a Project would require removal of up to four acres of riparian vegetation. Removal of this vegetation would likely result in the loss of a substantial amount of nesting habitat for Swainson's hawk and adverse impacts to fish. In addition, the RSLIP Alternative would require levee degradation (to accommodate installation of the proposed cutoff walls) and reconstruction of the existing Garden Highway in accordance with currently applicable roadway standards, which is not required for the Phase 4a Project. The resulting closure of Garden Highway would result in severe access and traffic delays. Construction of the adjacent levee under the Phase 4a Project would preclude the need for extensive vegetation removal and extensive roadway reconstruction, and thus would avoid these impacts.

In summary, a greater number of significant and unavoidable impacts would result from implementation of the RSLIP Alternative compared to the Phase 4a Project. For the foregoing reasons, the RSLIP Alternative is hereby rejected as infeasible.

## VI. STATEMENT OF OVERRIDING CONSIDERATIONS

The Board has balanced the benefits of the Phase 4a Project against its unavoidable environmental risks in determining whether to approve the Project, and has determined that the benefits of the project outweigh the unavoidable adverse environmental effects. The reasons set forth below are based on the FEIR and other information in the record.

A. Because of unique topographical and meteorological features, the Sacramento River basin, including its major tributaries, the Feather and American Rivers, is capable of producing significantly higher peak flood discharge per square mile of drainage area than any other major river basin in the United States.

B. The 1986 flood, the largest flood ever recorded for the Sacramento and American Rivers, triggered a major reevaluation of Sacramento's flood control system by the United States Army Corps of Engineers, which identified deficiencies in the flood control system protecting Sacramento. Although substantial flood protection effort has been undertaken since 1986, large portions of the Sacramento metropolitan area remain at high risk (having less than 100-year flood protection) or at moderate risk (having greater than 100-year but less than 200-year flood protection) of flooding.

C. There is an immediate need to protect the people and property at risk in the project area. The Natomas Basin floodplain is occupied by over 83,000 residents and $10 billion in damageable property. This area is presently vulnerable to flooding in a less than 100-year flood event along the Sacramento River or American River. Uncontrolled flooding in the Natomas Basin floodplain in a flood exceeding a 100-year event could result in $7 billion in damage. Depending on the circumstances, flood depths in the Natomas Basin could reach life-

threatening levels. Flooding would also result in releases of toxic and hazardous materials, groundwater contamination, and possible damage to the metropolitan power grid. The disruption in transportation that would result from a major flood would affect the Sacramento International Airport, interstate and state highways, and rail service. The day-to-day functioning of the state capital also would be significantly affected.

D. In recognition of the significant flood risk in the Sacramento area, Congress authorized the significant improvements to Sacramento flood control system as part of the Water Resource Development Act of 1996, including improvements to the Sacramento River east levee and American River north levee in Natomas.

E. In recognition of the significant flood risk still remaining in the Sacramento area, Congress authorized the most significant package of improvements to Sacramento flood control system since the construction of Folsom Dam in 1956 as part of the Water Resource Development Act of 1999, including the improvements to the NCC south levee.

F. The project will help maximize public safety along the lower American and Sacramento Rivers and their tributaries in the Sacramento region. Specifically, the project will improve the levee system in the Natomas Basin and make related landscape modifications and drainage and infrastructure improvements.

G. The project would significantly reduce the risk of an uncontrolled flood in the Natomas Basin that would result in a catastrophic loss of property (estimated at $7 billion) and a prolonged interruption of commercial activity, including the operation of Sacramento International Airport and closure of Interstate 5 and State Route 99.

H. By contributing to protection of existing housing stock from destruction due to flood damage, the project will contribute to the maintenance of affordable housing in the region.

I. Several of the significant and unavoidable impacts identified in the FEIR (including construction-related noise, traffic on local roadways, and air emissions) are temporary in duration and will be limited to the construction period.

## VII. INCORPORATION BY REFERENCE

The FEIR is hereby incorporated into these Findings in its entirety. Without limitation, this incorporation is intended to elaborate on the scope and nature of the mitigation measures, the basis for determining the significance of impacts, the comparative analysis of alternatives, and the reasons for approving the Phase 4a Project in spite of the potential for associated significant and unavoidable adverse impacts.

## VIII. RECIRCULATION NOT REQUIRED

No significant new information was added to the DEIS/DEIR as a result of the public comment process. The FEIR responds to comments, and clarifies, amplifies and makes insignificant modifications to the DEIS/DEIR. The FEIR does not identify any new significant effects on the environment or a substantial increase in the severity of an environmental impact

requiring major revisions to the DEIS/DEIR. Therefore, recirculation of the DEIS/DEIR is not required.

## IX. RECORD OF PROCEEDINGS

Various documents and other materials constitute the record of proceedings upon which the Board bases its findings contained herein. The record of proceedings is located in the offices of the Clerk of the Sacramento Area Flood Control Agency, 1007 Seventh Street, 7th Floor, Sacramento, California 95814.

## X. SUMMARY

A. Based on the foregoing Findings and the information contained in the record, the Board has made one or more of the following Findings with respect to each of the significant environmental effects of the NLIP Phase 4a Landside Improvements Project:

1. Changes or alterations have been required in, or incorporated into, the Phase 4a Project that avoid or substantially lessen the significant environmental effects identified in the FEIR.

2. To the extent that such changes or alterations are within the responsibility and jurisdiction of another public agency and not SAFCA, those changes or alterations have been, or can and should be, adopted by that other agency.

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 environmental impact report.

B. Based on the foregoing Findings and the information contained in the record, it is determined that:

1. All significant effects on the environment due to the approval of the Phase 4a Project have been eliminated or substantially lessened where feasible.

2. Any remaining significant effects on the environment found to be unavoidable are acceptable due to the factors described in the Statement of Overriding Considerations in Section VI, above.

WHEREAS, the SAFCA Board of Directors certified the Local Funding EIR in February 2007, certified the 2007 Landside EIR and approved the Phase 2 Project in November 2007, and certified the Phase 3 EIR and approved the Phase 3 Project in May 2009; and

WHEREAS, modifications to the Phase 2 Project were analyzed in the Supplement to the Environmental Impact Report on the NLIP Landside Improvements Project – Phase 2 Project (State Clearinghouse No. 2007062016 ("Phase 2 SEIR"); and

WHEREAS, the SAFCA Board of Directors certified the Phase 2 SEIR and approved the modifications to the Phase 2 Project in January 2009; and

WHEREAS, minor changes to the Phase 2 Project were analyzed in the Addendum to the Environmental Impact Report on the NLIP Landside Improvements Project – Phase 2 Project (State Clearinghouse No. 2007062016 ("Phase 2 EIR 1st Addendum") and the 2nd Addendum to the Environmental Impact Report on the NLIP Landside Improvements Project – Phase 2 Project (State Clearinghouse No. 2007062016 ("Phase 2 EIR 2nd Addendum"); and

WHEREAS, the SAFCA Board of Directors certified the Phase 2 EIR 1st Addendum and approved the minor changes to the Phase 2 Project in June 2009, and certified the Phase 2 EIR 2nd Addendum and approved the minor changes to the Phase 2 Project in August 2009; and

WHEREAS, minor changes to the Phase 3 Project were analyzed in the Addendum to the Environmental Impact Report on the NLIP Phase 3 Landside Improvements Project (State Clearinghouse No. 2008072060) ("Phase 3 EIR Addendum"); and

WHEREAS, the SAFCA Board of Directors certified the Phase 3 EIR Addendum and approved the minor changes to the Phase 3 Project in September 2009; and

WHEREAS, construction of the Phase 1 Project and most of the Phase 2 Project has been completed; and

WHEREAS, the Phase 4a Project would involve improvements to a portion of the Natomas Basin's perimeter levee system in Sutter and Sacramento Counties, California, and associated landscape and irrigation/drainage infrastructure modifications, with a focus on addressing underseepage, riverbank erosion, encroachment, and levee height deficiencies along the Sacramento River east levee south of Interstate 5; and

WHEREAS, SAFCA has prepared an Environmental Impact Report on the NLIP Phase 4a Landside Improvements Project (State Clearinghouse No. 2009032097) ("Phase 4a EIR" or "EIR"); and

WHEREAS, the Phase 4a EIR is tiered from the Local Funding EIR and the 2007 Landside EIR; and

WHEREAS, the Phase 4a Project is fully described in Chapter 2 of the August 2009 Draft EIS/EIR, as amended by the November 2009 Final EIR; and

WHEREAS, SAFCA desires the Phase 4a Project to provide at least 100-year flood protection as quickly as possible while laying the groundwork to achieve at least "200-year" flood protection over time; to use flood control projects in the vicinity of Sacramento International Airport to facilitate better management of Airport lands that reduce hazards to aviation safety; and to use flood control projects to enhance habitat values by increasing the extent and connectivity of the lands in the Natomas Basin being managed to provide habitat for giant garter snake, Swainson's Hawk, and other special-status species; and

WHEREAS, construction of the Phase 4a Project is scheduled to begin in spring 2010 and is expected to be completed in 2011, assuming receipt of all required environmental clearances, permits, and approvals for project implementation; and

WHEREAS, the Draft EIS/EIR describing the Phase 4a Project has been circulated for public review, comments have been received and responses issued, and a Final EIR has been prepared; and

WHEREAS, the Final EIR has been presented to the Board and the Board has reviewed and considered the information contained in the Final EIR.

NOW, THEREFORE, BE IT RESOLVED BY THE SACRAMENTO AREA FLOOD CONTROL AGENCY BOARD OF DIRECTORS:

1. The Board hereby finds the foregoing recitals to be true and correct.

2. The Board hereby certifies that the Final EIR for the Phase 4a Project has been completed in compliance with the California Environmental Quality Act, Public Resources Code Section 21000 *et seq.*, and reflects the independent judgment and analysis of SAFCA.

3. The Board hereby adopts the Findings and Statement of Overriding Considerations for the Phase 4a Project, attached hereto as "Exhibit A," including the Statement of Overriding Considerations set forth therein.

4. The Board hereby adopts and incorporates into the Phase 4a Project all of the Mitigation Measures within the responsibility and jurisdiction of SAFCA that are identified in the Findings.

5. The Board hereby adopts the Mitigation Monitoring and Reporting Program for the Phase 4a Project, attached hereto as "Exhibit B."

6. The Board hereby approves the Phase 4a Project.

ON A MOTION BY Director _____, seconded by Director _____, the foregoing resolution was passed and adopted by the Board of Directors of the

Sacramento Area Flood Control Agency, this 13th day of November 2009, by the following vote, to wit:

AYES: Directors:

NOES: Directors:
ABSTAIN: Directors:
ABSENT: Directors:

_____
Chair of the Board of Directors of the
Sacramento Area Flood Control Agency

(SEAL)

ATTEST:

_____
Clerk of the Board of Directors

TNWlr/NLIP Phase 4a EIR Cert Reso 2009-11-13.rs.doc.
attachment